



# Selected Decisions and Documents of the Twentieth Session







## SELECTED DECISIONS AND DOCUMENTS OF THE TWENTIETH SESSION

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ISBN 978-976-8241-29-0

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## ASSEMBLY

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# Assembly

Distr.: General  
4 June 2014

Original: English

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## Report of the Secretary-General of the International Seabed Authority under article 166, paragraph 4, of the United Nations Convention on the Law of the Sea

### I. Introduction

1. The present report is submitted to the Assembly of the Authority pursuant to article 166, paragraph 4, of the 1982 United Nations Convention on the Law of the Sea (“the Convention”). The report provides information on the work of the Authority during the period from July 2013 to June 2014.

2. The Authority is an autonomous international organization established under the Convention and the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea (“the 1994 Agreement”). The Authority is the organization through which States parties to the Convention shall, in accordance with the regime for the seabed and ocean floor and subsoil thereof beyond the limits of national jurisdiction (“the Area”) established in Part XI of the Convention and the 1994 Agreement, organize and control activities in the Area, in particular with a view to administering the resources of the Area. It does this strictly in accordance with the provisions of the Convention and the 1994 Agreement through a contract-based system which involves issuing contracts of limited duration to those entities wishing to explore for or exploit minerals in the seabed beyond national jurisdiction.

3. The Authority has a number of additional specific responsibilities under other provisions of the Convention, such as the responsibility to distribute to States parties to the Convention payments or contributions in kind derived from exploitation of the resources of the continental shelf beyond 200 nautical miles, pursuant to article 82, paragraph 4, of the Convention and the responsibility, under articles 145 and 209, to establish international rules, regulations and procedures to prevent, reduce and control pollution of the marine environment from activities in the Area, and to adopt measures to protect and conserve the natural resources of the Area and prevent damage to the flora and fauna of the marine environment.

4. Pending the approval of the first plan of work for exploitation, the Authority is to concentrate on the 11 areas of work listed in paragraph 5 of section 1 of the annex to the 1994 Agreement. In view of the limited resources available to the Authority, the relative priority to be given to each of those areas of work depends on the pace of development of commercial interest in deep seabed mining. The main focus of the programme of work of the Authority is therefore on the following areas:





- (a) Supervisory functions with regard to contracts for exploration;
- (b) Monitoring of trends and developments relating to deep seabed mining activities, including world metal market conditions and metal prices, trends and prospects;
- (c) Development of an appropriate regulatory framework for the future development of the mineral resources of the Area, including standards for the protection and preservation of the marine environment during their development;
- (d) Promotion and encouragement of marine scientific research in the Area through, among other things, an ongoing programme of technical workshops, the dissemination of the results of such research, and collaboration with contractors and the international scientific community;
- (e) Information-gathering and the establishment and development of unique databases of scientific and technical information with a view to obtaining a better understanding of the deep ocean environment;
- (f) Ongoing assessment of available data relating to prospecting and exploration for polymetallic nodules in the Clarion-Clipperton fracture zone.

## **II. The Area**

5. In the Convention, the Area is defined as the seabed and subsoil thereof beyond the limits of national jurisdiction. This means that the establishment of the exact geographic limits of the Area depends on the establishment of the limits of national jurisdiction, including the delineation of the continental shelf extending beyond 200 nautical miles from the baseline of the territorial sea. For this reason, pursuant to article 84, paragraph 2, of the Convention, coastal States are obliged to give due publicity to charts or lists of geographical coordinates of points and, in the case of those indicating the outer limit lines of the continental shelf, to deposit a copy of such charts or lists with the Secretary-General of the Authority.

6. To date, the Commission on the Limits of the Continental Shelf has made 18 recommendations to coastal States. During the reporting period, one member of the Authority, Niue, deposited a chart and a list of coordinates showing the outer limit lines of the continental shelf with the Secretary-General of the Authority on 19 February 2014. This brings to five the number of members of the Authority that have deposited such charts and lists, the other four being Ireland (7 July 2010), Mexico (6 January 2012), the Philippines (6 July 2012) and Australia (14 December 2012). The Secretary-General takes the opportunity to urge once again all coastal States to deposit such charts or lists of coordinates as soon as possible after the establishment of the outer limit lines of their continental shelf in accordance with the relevant provisions of the Convention.

## **III. Membership of the Authority**

7. In accordance with article 156, paragraph 2, of the Convention, all States parties to the Convention are, ipso facto, members of the Authority. Since the nineteenth session of the Authority, one State, the Niger, has become party to the Convention and the 1994 Agreement. As at 25 May 2014, there were 166 States

parties to the Convention and thus 166 members of the Authority (165 States and the European Union). On the same date, there were 145 parties to the 1994 Agreement.

8. Twenty-one members of the Authority which became parties to the Convention before the adoption of the 1994 Agreement have not yet become parties to that Agreement, namely: Antigua and Barbuda, Bahrain, Bosnia and Herzegovina, Comoros, Democratic Republic of the Congo, Djibouti, Dominica, Egypt, Gambia, Ghana, Guinea-Bissau, Iraq, Mali, Marshall Islands, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Sao Tome and Principe, Somalia, Sudan and Yemen.

9. As provided by General Assembly resolution [48/263](#) and the 1994 Agreement itself, the provisions of the 1994 Agreement and Part XI of the Convention are to be interpreted and applied together as a single instrument. In the event of any inconsistency between the 1994 Agreement and Part XI of the Convention, the provisions of the 1994 Agreement would prevail. Although members of the Authority that are not parties to the 1994 Agreement necessarily participate in the work of the Authority under arrangements based on that Agreement, becoming a party to the 1994 Agreement would remove an incongruity that currently exists for those States.

10. For the above-mentioned reason and at the request of the Assembly, the Secretary-General of the International Seabed Authority has each year since 1998 circulated a letter to all members in that position, urging them to consider becoming parties to the 1994 Agreement. In the most recent such letter, circulated on 26 March 2014, attention was drawn to paragraph 9 of the annual report of the Secretary-General to the Assembly of the Authority for 2013 ([ISBA/19/A/2](#)) and to paragraph 3 of General Assembly resolution [68/70](#), in which the General Assembly called upon all States that had not done so, in order to achieve the goal of universal participation, to become parties to the Convention and the 1994 Agreement. The Secretary-General encourages all those members of the Authority that are not yet parties to the 1994 Agreement to become parties at the earliest possible opportunity.

#### **IV. Permanent missions to the Authority**

11. As at 31 March 2014, the following 22 States, in addition to the European Union, maintained permanent missions to the Authority: Argentina, Bangladesh, Belgium, Brazil, Cameroon, Chile, China, Cuba, France, Gabon, Germany, Italy, Jamaica, Japan, Mexico, Nigeria, Panama, Republic of Korea, Saint Kitts and Nevis, South Africa, Spain and Trinidad and Tobago.

#### **V. Relationship with the host Government**

12. The relationship between the Authority and its host Government is governed by the headquarters agreement, which entered into force on 26 August 1999, and the supplementary agreement regarding the headquarters of the Authority and the use of the Jamaica Conference Centre complex, which entered into force on 2 June 2004.

13. With regard to the headquarters building, while the Government of Jamaica is responsible for maintaining the fabric of the building, the Authority is required to take responsibility for minor internal repairs and for the internal layout and state of



decoration of the secretariat offices on the first and second floors. The secretariat offices were last refurbished in 1999 and are now in a very poor state of decoration and repair. The proposed administrative budget for the financial period 2015/16 provides for essential refurbishment of the offices in order to ensure a safe and secure working environment.

14. During the reporting period, the secretariat continued to actively seek redress regarding long-standing problems concerning the poor condition of air-conditioning units, the water supply and the windows of the headquarters building, as previously reported by the Secretary-General. While the Government has addressed some of those issues, the problems of inconsistent water supply and the poor performance of the air-conditioning units remain unresolved.

15. In addition, as previously reported, the Urban Development Corporation, the proprietor of the parking garage adjacent to the headquarters building that is used by the staff of the secretariat, imposed in 2013 a 103 per cent increase of the annual fee charged to the Authority, ostensibly on the basis of the intended renovation of the facility. No renovation has yet been undertaken and the issues of poor lighting and flooding of the parking garage during heavy rain have not been resolved. While several letters have been addressed to the Urban Development Corporation requesting an update on the renovation works, to date no response has been received.

16. Pursuant to the headquarters agreement, the Authority uses the Jamaica Conference Centre for its annual sessions. The rental cost of the Conference Centre is met from the administrative budget of the Authority, while responsibility for its maintenance and upkeep lies with the Government of Jamaica. Over the past several years, the meetings of the Authority have been adversely affected by persistent problems with the audio systems used for interpretation. While the Jamaica Conference Centre has made efforts to improve the system, interruptions continued to be experienced during the meetings of the Legal and Technical Commission held in February 2014.

17. The Secretary-General expresses his appreciation for the efforts made by the Government of Jamaica over the past several years to encourage better attendance at the annual sessions by waiving the visa requirement for delegates travelling from countries in which Jamaica has no embassy or consulate. The process involves prior clearance with the Ministry of Foreign Affairs and Foreign Trade and is facilitated through the protocol office at the Authority.

## **VI. Protocol on the Privileges and Immunity of the Authority**

18. The Protocol on the Privileges and Immunities of the International Seabed Authority was adopted by the Assembly of the Authority on 27 March 1998. It entered into force on 31 March 2003, 30 days after the date of deposit of the tenth instrument of ratification, approval, acceptance or accession, in accordance with article 18 of the Protocol. The Protocol provides essential protection to representatives of members of the Authority who attend meetings of the Authority or who travel to and from those meetings. It also accords to experts on mission for the Authority such privileges and immunities as are necessary for the independent exercise of their functions while on mission and for the time spent on journeys in connection with their mission.

19. As at 10 April 2014, the following 36 members of the Authority were parties to the Protocol: Argentina, Austria, Brazil, Bulgaria, Cameroon, Chile, Croatia, Cuba, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Germany, Guyana, India, Ireland, Italy, Jamaica, Lithuania, Mauritius, Mozambique, Netherlands, Nigeria, Norway, Oman, Poland, Portugal, Slovakia, Slovenia, Spain, Togo, Trinidad and Tobago, United Kingdom of Great Britain and Northern Ireland and Uruguay.

20. The Secretary-General urges and encourages other members of the Authority that are not yet parties to the Protocol to take the steps necessary to do so at their earliest convenience.

## **VII. Administrative matters**

### **A. Secretariat**

21. The total number of established posts in the secretariat of the Authority is 37 (20 Professional and 17 General Service). A number of vacant positions were filled during the reporting period, as follows: Head of the Office of Resources and Environmental Monitoring (D-1); Senior Scientific Affairs Officer (Marine Geologist) (P-5); Scientific Affairs Officer (Marine Biologist) (P-4); and Senior Legal Officer (P-5).

### **B. Participation in the United Nations common system**

22. The Authority is an autonomous international organization, but applies to its staff the common system of salaries, allowances and other conditions of service of the United Nations and its specialized agencies. Since 2013, the Authority has subscribed to the statute of the International Civil Service Commission (ICSC) and is therefore a full participant in the United Nations common systems of salaries, allowances and other conditions of service, with all associated benefits and obligations.

23. The Authority participated in the seventy-eighth session of ICSC, held in New York from 17 to 28 March 2014. The primary focus of the session was the comprehensive review of the United Nations common system compensation package. The Office of Administration and Management continues to represent the Authority at the monthly meetings of the operations management team and the security management team, which are convened by the United Nations country team in Jamaica. In coordination with ICSC, current ongoing exercises include a regular place-to-place survey and cost-of-living review for Professional staff salaries, a comprehensive local salary survey and a post classification review. From 28 October to 1 November 2013, the secretariat also hosted a workshop for ICSC on the review of the human resources management framework.

24. With the planned adoption of the International Public Sector Accounting Standards during the financial period 2015/16, it will be necessary for the Authority to deploy the supporting Umoja enterprise resources planning system developed by the United Nations.



### **C. Cost-saving measures**

25. The secretariat continued to make its best efforts to constrain unnecessary increases in its administrative expenses through the implementation of cost-saving and efficiency measures where possible. This included the implementation of a streamlined policy for the digital production and distribution of publications (see paras. 39 and 40). The secretariat is currently working with a number of United Nations agencies to formulate a common services agreement geared towards overall cost savings through combined operations and strategic alliances. The objective is to reduce costs while streamlining business practices. The plan will cover areas such as human resources management, information and communications technology, finance, procurement and common premises. A four-day workshop was held from 7 to 10 May 2014 to prepare the business operations strategy and review the most recent United Nations guidelines, tool and models to achieve operational efficiency, including needs and cost-benefit analysis.

## **VIII. Financial matters**

### **A. Budget**

26. At its eighteenth session, the Assembly adopted the administrative budget for the financial period 2013/14 in the amount of \$14,312,948 (see [ISBA/18/A/7](#)).

### **B. Status of contributions**

27. In accordance with the Convention and the 1994 Agreement, the administrative expenses of the Authority shall be met by assessed contributions of its members until the Authority has sufficient funds from other sources to meet those expenses. The scale of assessments shall be based on the scale used for the regular budget of the United Nations, adjusted for differences in membership. As at 30 April 2014, 68.7 per cent of the value of contributions to the 2014 budget due from member States and the European Community had been received from 29.7 per cent of the Authority's membership.

28. Contributions outstanding from member States for prior periods (1998-2013) amount to \$283,731. Notices are sent on a regular basis to member States, reminding them of the arrears. In accordance with article 184 of the Convention and rule 80 of the rules of procedure of the Assembly, a member of the Authority which is in arrears in the payment of its financial contribution shall have no vote if the amount of its arrears equals or exceeds the amount of financial contribution due from it for the preceding two years. As at 30 April 2014, the following 43 members of the Authority had been in arrears for two years or more: Barbados, Benin, Botswana, Burkina Faso, Chad, Comoros, Cook Islands, Democratic Republic of the Congo, Djibouti, Dominica, Dominican Republic, Equatorial Guinea, Gabon, Gambia, Grenada, Guinea, Guinea-Bissau, Honduras, Liberia, Madagascar, Malawi, Maldives, Mali, Marshall Islands, Mauritania, Morocco, Namibia, Palau, Paraguay, Saint Lucia, Saint Vincent and the Grenadines, Sao Tome and Principe, Seychelles, Sierra Leone, Somalia, Sri Lanka, Sudan, Suriname, the former Yugoslav Republic of Macedonia, Togo, Uganda, Vanuatu and Zambia.

29. As at 30 April 2014, the balance of the Working Capital Fund stood at \$556,522, against an approved level of \$560,000.

### **C. Voluntary trust fund**

30. The voluntary trust fund for the participation of members of the Finance Committee and the Legal and Technical Commission from developing countries was established in 2002. Provisional terms and conditions for the use of the fund were adopted by the Assembly in 2003 and amended in 2004 (see [ISBA/9/A/5-ISBA/9/C/5](#) and [ISBA/9/A/9](#), para. 14). The trust fund is made up of voluntary contributions from members of the Authority and others. Total contributions to the fund amount to \$443,699, with the most recent contribution made by Japan in September 2013, in the amount of \$44,760. The total amount paid out of the fund as at 30 April 2014 was \$491,570. The balance of the voluntary trust fund as at the same date stood at \$154,038.

### **D. Endowment Fund for Marine Scientific Research in the Area**

31. The Assembly established the Endowment Fund for Marine Scientific Research in the Area in 2006 ([ISBA/12/A/11](#)). Detailed rules and procedures for the administration and utilization of the Fund were adopted in 2007 (see [ISBA/13/A/6](#), annex). The Fund aims to promote and encourage the conduct of marine scientific research in the Area for the benefit of humankind as a whole, in particular by supporting the participation of qualified scientists and technical personnel from developing countries in marine scientific research programmes, including through training, technical assistance and scientific cooperation programmes. The Fund is administered by the secretariat. Members of the Authority, other States, relevant international organizations, academic, scientific and technical institutions, philanthropic organizations and private persons may make contributions to the Fund.

32. As at 30 April 2014, the capital of the Fund stood at \$3,417,038. As at the same date, a total of \$428,932 had been disbursed from the interest accrued on the capital in the form of awards for projects. Information on the substantive activities of the Fund is contained in paragraphs 81 to 86 of the present report.

## **IX. Library, publications and website**

### **A. Satya N. Nandan Library**

33. The Satya N. Nandan Library is the main information resource for the secretariat and for member States and other individuals and institutions seeking specialist information on seabed resources and legal and political issues relating to the deep sea. The Library manages the Authority's specialized collection of reference and research materials, which focuses on matters relating to the law of the sea, ocean affairs and deep seabed mining. Its principal objective is to service the reference and research needs of the members of the Authority, permanent missions and researchers and to provide essential support for the work of the staff of the secretariat. The Library is also responsible for the archiving and distribution of the



official documents of the Authority and assists with the publications programme. Important linkages are maintained with international and local entities. The Library is an active member of the International Association of Aquatic and Marine Science Libraries and Information Centres, which meets annually in one of its member countries, and the Library and Information Association of Jamaica.

34. The facilities available to visitors, including delegates, in the Library include a reading room with access to the collection for reference purposes, computer terminals for e-mail and Internet usage, and access to the Library's database. The services provided include literature searches; handling of queries by telephone, e-mail or in person; interlibrary lending; and management and distribution of the official documents and publications of the Authority. The most recent major upgrade to the facilities of the Library was done during the renovation of the headquarters in 1999. In the context of the budget for the financial period 2013/14, the Finance Committee approved funds for the acquisition of new furniture and partial funding for library management software, with the remaining funding to be considered in the context of the budget for the financial period 2015/16. By July 2014, it is anticipated that the public access area of the Library will have been updated, with a new reception area and improved reading areas. A procurement exercise for library management software will begin at a later stage in 2014.

35. The specialized research capability of the existing library collection continues to be developed through an acquisitions programme aimed at building upon and strengthening the Library's comprehensive collection of reference material, and the improvement of access to information. The acquisition of publications to develop the specialized collection is still mostly done in print. Many publications, however, are now also available in electronic format; in some cases, this is the only option. The Library is taking steps to implement changes in its acquisition strategies in keeping with those developments, including exploring options to acquire information through reference and publications databases. It should be noted, however, that the acquisitions budget for the library has remained static in dollar terms for 18 years. In addition to the generally increasing costs of publications, one particular concern is that the costs of journals and periodicals have increased substantially and now account for more than half of the acquisition budget, even though the number of active subscriptions has been reduced over the past few years in an effort to reduce costs. It will be unavoidable, however, to increase budgetary resources in the financial period 2015/16 if the same level of services is to be maintained.

36. In an attempt to alleviate the problem, the secretariat has developed a collaborative arrangement with the International Tribunal for the Law of the Sea with a view to reducing costs by identifying areas for the possible sharing of resources and development of joint collections. In June 2014, the Authority and the Tribunal entered into a memorandum of agreement to form a partnership for the acquisition of electronic resources through the United Nations System Electronic Information Acquisitions Consortium. It is anticipated that participation in the Consortium, a shared resource for the libraries of the United Nations system, will result in substantial savings in the acquisition of electronic information for participating agencies.

37. In addition to the acquisitions made by the Library, the collection has also been expanded through the generous donations of institutions, organizations and individuals. These include donations from the Division for Ocean Affairs and the

Law of the Sea of the Office of Legal Affairs of the United Nations Secretariat; the International Tribunal for the Law of the Sea; the United Nations Educational, Scientific and Cultural Organization (UNESCO); the United Nations Environment Programme; the Food and Agriculture Organization of the United Nations; the United Nations Development Programme; the Intergovernmental Oceanographic Commission of UNESCO; the World Bank; the Tokyo Institute of Technology; the Center for Oceans Law and Policy, University of Virginia; the Law of the Sea Institute at the University of California, Berkeley; the Woods Hole Oceanographic Institution; the German Advisory Council on Global Change; the Leipziger Kommissions- und Großbuchhandels-gesellschaft (Leipzig Commission and Wholesale Book Trade), Germany; the United States Institute of Peace; the University of the West Indies, Mona, Jamaica; and the Ministry of Energy and Mining, Jamaica. Staff members also continue to donate publications from seminars and workshops attended. The Secretary-General expresses his gratitude to all who supported the Library during the reporting period.

38. In 2014, the Library was pleased to host a moot team from the Norman Manley Law School of the University of the West Indies in connection with the 2014 Philip C. Jessup International Law Moot Court Competition. The preparation of members of the team covered maritime development and conservation, law of salvage, and criminal jurisdiction in the exclusive economic zone and high seas. The Philip C. Jessup competition is the world's largest moot court competition, with participants from over 550 law schools in more than 80 countries. There is increasing interest in the work of the Authority and the number of enquiries, especially with regard to contracts for exploration, continues to grow, as does the number of requests for information on the Endowment Fund and the fellowship and training opportunities available through the Fund. Many such requests are received electronically and reflect the awareness and growing knowledge of the work of the Authority internationally.

## **B. Publications**

39. The publications of the Authority are available in both print and electronic formats. Unfortunately, the cost of publication, storage and distribution of traditional printed publications has increased significantly over the years, to the extent that it is no longer possible to meet the demand from within existing resources. Following a detailed analysis of alternative options, the Authority, at the end of 2013, launched a new publications strategy which uses a combination of print-on-demand and electronic publishing technology and is aimed at reducing costs by streamlining publishing practices. The decision to review the distribution methods was also influenced by an increase in requests for publications in the e-book format and a steady decline in the demand for print copies, leading to excess inventory and wasted printing costs.

40. The Authority now makes use of a print-on-demand service while simultaneously making printed publications available to individuals and the general public for purchase through a digital storefront on Amazon.com. The secretariat will continue to provide high-quality printed materials for free distribution to member States. Publications are also available for free download in multiple e-book formats through the website of the Authority.

## **C. Website**

41. The website of the Authority is currently being upgraded and redeveloped to better manage and disseminate the various aspects of its work to member States, its various organs and the public at large. The restructured website will be compatible with cross-browser platforms and will also be accessible on mobile devices. In June 2014, the Authority will launch a mobile application, ISA-HQ, which is designed for use on tablets and mobile devices using the iOS and Android operating systems. During the reporting period, the information and communications unit developed and deployed an extranet accessible to members of the Legal and Technical Commission, which allows secure collaboration among members. At the request of the Commission, an electronic log was also developed to record the submission of documents and communications from contractors with a view to facilitating the inventory, search and production of various reports.

## **X. Relationship with the United Nations and other relevant international organizations**

### **A. United Nations**

42. The Authority maintains a close and productive working relationship with the United Nations, in particular the Division for Ocean Affairs and the Law of the Sea of the Office of Legal Affairs and with the Department for General Assembly and Conference Management of the United Nations Secretariat, which provides meetings services for its annual sessions. Since 2011, the Authority has participated in the Fellowship Programme of the Nippon Foundation of Japan, which is administered by the Division for Ocean Affairs and the Law of the Sea pursuant to the Technical Cooperation Trust Fund Agreement between the United Nations and the Nippon Foundation.

43. In this regard, it is recalled that the General Assembly, by its resolution [51/6](#), granted observer status to the Authority. The Authority maintains a permanent mission to the United Nations, which greatly facilitates an effective working relationship with member States represented in New York. Furthermore, in 1997, the Authority entered into a formal relationship agreement with the United Nations, under which the Authority agreed to apply, in the interests of uniform standards of international employment and to the extent feasible, common personnel standards, methods and arrangements and to facilitate the interchange of personnel in order to obtain the maximum benefit from their services. The agreement also covers the terms and conditions on which meeting services are provided to the Authority by the Department for General Assembly and Conference Management.

### **B. International Tribunal for the Law of the Sea**

44. The Authority enjoys a harmonious working relationship with the International Tribunal for the Law of the Sea. In March 2014, at the invitation of the President of the Tribunal, the Secretary-General and the Deputy to the Secretary-General visited the premises of the Tribunal in Hamburg, Germany, where they held informal discussions with the judges of the Tribunal and the members of the Seabed Disputes



Chamber. An informal discussion on general administrative and staffing matters also took place between the Deputy to the Secretary-General and the Registrar of the Tribunal.

### **C. UN-Oceans**

45. UN-Oceans is an inter-agency mechanism which seeks to enhance the coordination, coherence and effectiveness of competent organizations of the United Nations system and the International Seabed Authority, within existing resources, in conformity with the Convention, the respective competences of each of its participating organizations and the mandates and priorities approved by their respective governing bodies.

46. Under its revised terms of reference (General Assembly resolution [68/70](#), annex), UN-Oceans is mandated to strengthen and promote coordination and coherence of United Nations system activities related to ocean and coastal areas; regularly share ongoing and planned activities of participating organizations within the framework of relevant United Nations and other mandates with a view to identifying possible areas for collaboration and synergy; facilitate, as appropriate, inputs by its participating organizations to the annual reports of the Secretary-General of the United Nations on oceans and the law of the sea and on sustainable fisheries; and facilitate inter-agency information exchange, including sharing of experiences, best practices, tools and methodologies and lessons learned in ocean-related matters.

47. The secretariat of the Authority is a member of UN-Oceans and participates in its meetings, as appropriate, and in accordance with its mandate. Other members include: Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs (UN-Oceans focal point); Counter-Terrorism Executive Directorate, United Nations Secretariat; Department of Economic and Social Affairs, United Nations Secretariat; Economic and Social Commission for Asia and the Pacific; Food and Agriculture Organization of the United Nations; International Atomic Energy Agency; International Labour Organization; International Maritime Organization; Intergovernmental Oceanographic Commission of UNESCO; Office for Disarmament Affairs, United Nations Secretariat; secretariat of the Convention on Biological Diversity; United Nations Conference on Trade and Development; United Nations Development Programme; United Nations Environment Programme; United Nations Industrial Development Organization; United Nations Institute for Training and Research; Office of the United Nations High Commissioner for Refugees; Office of the High Representative for the Least Developed Countries, the Landlocked Developing Countries and the Small Island Developing States, United Nations Secretariat; United Nations University; World Bank; World Meteorological Organization; and World Tourism Organization.

## **XI. Previous session of the Authority**

48. The nineteenth session of the Authority was held in Kingston from 15 to 26 July 2013. Vladimir Polenov (Russian Federation) was elected President for the session and Tobias Pierlings (Germany) was elected President of the Council. The Assembly considered the annual report of the Secretary-General ([ISBA/19/A/2](#)). On

25 July, on the recommendation of the Finance Committee and of the Council, the Assembly adopted a decision relating to financial and budgetary matters (ISBA/19/A/8) and a decision concerning overhead charges for the administration and supervision of exploration contracts (ISBA/19/A/12). Also on 25 July, the Assembly adopted decision ISBA/19/A/9, by which it approved the amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area provisionally adopted by the Council on 22 July (ISBA/19/C/17, annex).

49. The Council, on the recommendation of the Legal and Technical Commission, approved two applications for approval of plans of work for exploration for cobalt-rich ferromanganese crusts, submitted by the China Ocean Mineral Resources Research and Development Association (sponsored by China) and the Japan Oil, Gas and Metals National Corporation (sponsored by Japan), and requested the Secretary-General to issue the plans of work in the form of contracts between the Authority and each of the applicants.

50. The Council considered a report of the Interim Director-General of the Enterprise (ISBA/19/C/4) and, in the light of the report, requested the Secretary-General of the Authority, with referral where appropriate to the Legal and Technical Commission and the Finance Committee, to carry out a study of the issues relating to the operation of the Enterprise, in particular the legal, technical and financial implications for the Authority and for States parties, taking into account the provisions of the Convention, the 1994 Agreement and the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area.

51. The Council also considered the summary report of the Chair of the Legal and Technical Commission, the report of the Finance Committee and the report of the Secretary-General on the development of an exploitation code for polymetallic nodules in the Area.

## **XII. Twentieth anniversary of the International Seabed Authority**

52. The Authority came into existence on 16 November 1994 upon the entry into force of the Convention, although it did not become fully operational as an autonomous organization until 1996, with the election of its first Secretary-General. The date of 16 November 2014 therefore marks the twentieth anniversary of the establishment of the Authority. A special commemorative event will be held during the twentieth session of the Authority to mark its twentieth year of existence.

## **XIII. Status of contracts for exploration in the Area**

53. The contractual nature of the relationship between the Authority and those wishing to conduct activities in the Area is fundamental to the legal regime established by Part XI of the Convention and the 1994 Agreement. Annex III to the Convention, which sets out the Basic Conditions of Prospecting, Exploration and Exploitation, also forms an integral part of this legal regime, which is to be further developed in the rules, regulations and procedures adopted by the Authority. Consequently, the administration and supervision of contracts between the Authority and qualified entities wishing to explore for or exploit deep sea mineral resources lies at the core of its functions.

54. As at 19 May 2014, 16 exploration contracts were in force, covering approximately 900,000 km<sup>2</sup> of the seafloor in the Atlantic, Indian and Pacific oceans. Twelve contracts cover exploration for polymetallic nodules, two cover exploration for polymetallic sulphides and two cover exploration for cobalt-rich ferromanganese crusts. The first contract for exploration for cobalt-rich crusts was signed with the Japan, Oil, Gas and Metals National Corporation in Tokyo on 27 January 2014. A contract for exploration for cobalt-rich crusts was also signed with the China Ocean Mineral Resources Research and Development Association in Beijing on 29 April 2014. Information on the status of contracts for exploration is provided in the annex to the present report.

55. Three plans of work for exploration approved by the Council at the eighteenth session have yet to be concluded in the form of a contract with the Authority. The applicants involved are the Government of the Republic of Korea, the Institut français de recherche pour l'exploitation de la mer (sponsored by France) and Marawa Research and Exploration Ltd. (sponsored by Kiribati). It is anticipated that those contracts will be signed during the second half of 2014, bringing the total number of exploration contracts to 19.

56. Seven applications for approval of plans of work for exploration are under consideration by the Legal and Technical Commission and the Council. Applications received from the Ministry of Natural Resources and Environment of the Russian Federation (crusts), UK Seabed Resources Ltd. (nodules), the Government of India (Sulphides) and Ocean Mineral Singapore Pte. Ltd. (nodules), consideration of which had been deferred from the nineteenth session of the Authority in 2013, were reviewed by the Legal and Technical Commission at its meeting in February 2014 and will be considered by the Council at the twentieth session.

57. Three new applications were submitted in December 2013, by the Government of Germany, represented by the Ministry for Economic Affairs and Energy and its central geoscientific authority, the Federal Institute for Geosciences and Natural Resources (17 December 2013); the Cook Islands Investment Corporation, sponsored by the Cook Islands (27 December 2013); and the Companhia de Pesquisa de Recursos Minerais S.A., sponsored by Brazil (31 December 2013). The applications are under review by the Legal and Technical Commission.

58. On 6 September 2011, pursuant to regulation 4, paragraph 2, of the Regulations, the Federal Institute for Geosciences and Natural Resources of Germany notified the Secretary-General of its intention to engage in prospecting for polymetallic sulphides in the southern portion of the Central Indian Ridge and the northern portion of the Southeast Indian Ridge. Prospectors are required to submit an annual report describing the status of prospecting and the results obtained. Reports were submitted by the Institute in December 2013 and May 2014.

59. Following an informal meeting of exploration contractors for polymetallic nodules in January 2012, it was decided to organize a series of taxonomic exchange workshops on the megafauna, macrofauna and meiofauna in the contract areas. The need for such workshops, which bring together contractors and experts on the various faunal groups, became apparent for addressing the potentially varying taxonomic standards and differing taxonomic expertise available. Such needs were also in line with the international project, International Network for Scientific Investigation of Deep Sea Ecosystems (see [www.indeep-project.org](http://www.indeep-project.org)) which, among other objectives, is aimed at providing large-scale syntheses of biogeographic and



biodiversity patterns in the deep sea, in addition to fostering environmentally sustainable management of deep-sea resources.

60. The first of the standardization workshops, supported by the Authority and the International Network for Scientific Investigation of Deep Sea Ecosystems, was held at the Centre for Marine Biodiversity of the Senckenberg Institute in Wilhelmshaven, Germany, from 10 to 15 June 2013. The workshop was attended by contractors and taxonomists, specialists in the megafaunal group known to occur in the Clarion-Clipperton zone, and focused on the size of the megafaunal component of the abyssal fauna (megafauna are defined as organisms large enough to be determined on photographs, typically larger than 1 cm in size). The workshop made a number of technical recommendations concerning the need for the collection of specimens, maintenance of voucher collections and molecular sampling, best practices, and international cooperation in capacity-building and training on taxonomy. Another outcome of the workshop was the production of a digital atlas, which can be accessed at <http://ccfzatlas.com/wiki/> (login required). It is anticipated that the second workshop in the series, which will focus on macrofauna, will be held in the Republic of Korea in the last quarter of 2014, and the third, on meiofauna, will be held in the first part of 2015. It is anticipated that a similar programme of workshops will be necessary for the fauna associated with polymetallic sulphide deposits and cobalt-rich crusts.

61. In 2014, the Authority will also convene a workshop to consider the application of a resource classification system for polymetallic nodule deposits. The workshop, to be held in India in conjunction with mineral classification experts, scientists and engineers, will assist contractors to prepare estimations of mineable areas within exploration areas.

62. The secretariat has recently engaged in a process of assimilating the environmental data provided by the contractors in their annual reports. This task will provide a technical overview of the environmental parameters of the Clarion-Clipperton zone. The output will form the basis for an ecosystem-based database for the Area. This initial task is expected to be completed by 2015. Its completion will lead to the formulation of terms of reference for a complete repurposing, redesign and expansion of the current central data repository of the Authority; the planning, design and development of environmental and geological data; and the integration of all data for dissemination to member States.

#### **XIV. Costs of administration and supervision of contracts with the Authority**

63. In its decision concerning overhead charges for the administration and supervision of exploration contracts (ISBA/19/A/12), the Assembly decided to amend the standard clauses for exploration contracts by requiring contractors to pay an annual overhead charge of \$47,000 when they submit their activity annual reports, that is, by no later than 31 March each year. This charge has been established by means of an amendment to the standard clauses for such contracts (ISBA/6/A/18, annex 4; ISBA/16/A/12/Rev.1, annex 4; and ISBA/18/A/11, annex IV), which consists of adding two new clauses, numbered 10.5 and 10.6 (see ISBA/19/A/12, annex). While the new provisions take effect from the date of adoption of the decision, that is, 25 July 2013, and will apply automatically to any contract entered into as a result of

applications made after that date, the decision of the Assembly contained special provisions relating to contracts entered into and applications submitted before that date. As required by the decision of the Assembly, a separate report on the implementation of decision [ISBA/19/A/12](#) is submitted for the consideration of the Council ([ISBA/20/C/12](#)).

## **XV. Progressive development of the regulatory regime for activities in the Area**

64. The Authority has a fundamental role to play in ensuring that an appropriate regulatory regime is established, in accordance with the Convention and the 1994 Agreement, that provides adequate security of tenure for future exploration for and exploitation of the mineral resources of the Area, while ensuring effective protection for the marine environment. The regulatory regime would ultimately be encapsulated in the Mining Code, which would comprise the whole of the comprehensive set of rules, regulations and procedures issued by the Authority to regulate prospecting, exploration and exploitation of marine minerals in the Area.

### **A. Prospecting and exploration**

65. The Mining Code currently consists of three sets of regulations covering prospecting and exploration for polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts, respectively.<sup>1</sup> In addition to specifying the process through which contracts may be applied for and granted, the regulations set out the standard terms and conditions, applicable to all entities, of contracts with the Authority. Although the three sets of regulations are separate, they are largely identical in structure and content. By decision [ISBA/19/A/9](#), the Assembly approved amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area ([ISBA/19/C/17](#), annex) in order to align them with the regulations for polymetallic sulphides and cobalt-rich crusts. The regulations are supplemented by recommendations for guidance issued by the Legal and Technical Commission. At present, recommendations have been issued in connection with the assessment of possible environmental impacts arising from exploration ([ISBA/19/LTC/8](#)), the reporting of financial expenditure under contracts for exploration ([ISBA/15/LTC/7](#)) and the implementation of training programmes under plans of work for exploration ([ISBA/19/LTC/14](#)).

### **B. Exploitation**

66. In line with the request of the Council ([ISBA/17/C/21](#), para. 20), the Legal and Technical Commission continued its work on the formulation of draft regulations for the exploitation of polymetallic nodules in the Area. The Commission was encouraged to consider a range of issues, including corporate social responsibility,

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<sup>1</sup> Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area ([ISBA/6/A/18](#) and [ISBA/19/C/17](#)), Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area ([ISBA/16/A/12/Rev.1](#)) and Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area ([ISBA/18/A/12](#)).

the engagement of stakeholders, a mining inspectorate, liability and indemnification for claims, a fiscal system, closure plans and a reporting mechanism.

67. At its meeting in July 2013, the Legal and Technical Commission requested the secretariat to provide it with a number of research deliverables, including a comparative study focusing on comparable extractive industry fiscal regimes adopted by members of the Authority. The study was provided to the Commission at its meeting in February 2014 in the form of a working paper on the development of financial terms for deep-sea mining exploitation. The main objectives of the study were, among others, to capture and clarify all policy and financial objectives relating to a fiscal regime; identify and present a comprehensive mix of comparable mining regime mechanisms and fiscal rates of payment; highlight and present, where possible, a suggested range of rates of payment and calculation methodologies; identify research studies and present current best practice with regard to an applicable fiscal regime; and consider any mechanism comparable to the Authority's policy and financial objectives.

68. On 10 March 2014, following consultations within the framework of the Legal and Technical Commission, a stakeholder survey was launched, aimed at soliciting from members of the Authority and current and future stakeholders relevant information for the development of a regulatory framework for the exploitation of minerals in the Area. The survey was to begin a process of stakeholder engagement and consultation as envisaged by the Council and was the first in a series of stakeholder engagements anticipated by the Authority in the development of a regulatory framework which will incorporate contemporary best practice and from which the Authority expects to benefit from the in-depth views, analysis and opinions of experts on activities in the Area. The survey questions focused on the following four thematic areas: financial terms and obligations; environmental management terms and obligations; health and safety and maritime security; and general considerations, such as stakeholder communication and transparency. As at the due date for submissions, more than 40 responses to the survey had been received from a wide range of public and private sector stakeholders. The Commission will consider the results of the survey at its meeting in July 2014.

### **C. National laws and regulations relating to deep seabed mining**

69. On 1 February 2011, the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea delivered its advisory opinion on the responsibilities and obligations of States sponsoring persons and entities with regard to activities in the Area. The Chamber affirmed that the Convention requires the sponsoring State to adopt, within its legal system, laws and regulations and to take administrative measures that have two distinct functions, namely, to ensure compliance by the contractor with its obligations and to exempt the sponsoring State from liability. The existence of such laws and regulations and administrative measures is not a condition for concluding the contract with the Authority; it is, however, a requirement that the sponsoring State carry out due diligence and seek exemption from liability. The Chamber further indicated that the national measures, once adopted, might not be appropriate in perpetuity. It considered that such measures should be kept under review so as to ensure they met current standards and that the contractor met its obligations effectively without detriment to the common heritage of humankind.



70. At the seventeenth session of the Authority, in 2011, the Council requested the Secretary-General to prepare a report on the laws, regulations and administrative measures adopted by sponsoring States and other members of the Authority with regard to the activities in the Area, and invited, for that purpose, sponsoring States and other members of the Authority, as appropriate, to provide to the secretariat information on, or texts of, relevant national laws, regulations and administrative measures (ISBA/17/C/20, para. 3). Reports were provided to the Council in 2012 and 2013. The secretariat also established an online database of the information on or the texts of national laws, regulations and administrative measures that had been submitted to it.

71. As at 30 May 2014, the following States had provided the requested information or texts: Belgium, China, Cook Islands, Czech Republic, Fiji, France, Germany, Guyana, Japan, Mexico, Nauru, Netherlands, New Zealand, Oman, Republic of Korea, Tonga, United Kingdom, United States of America and Zambia. A submission was also received from the secretariat of the Pacific Community, on behalf of the Pacific Island region.

## **XVI. Ad hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological biodiversity beyond areas of national jurisdiction, and related matters**

72. The Authority participates in meetings of the Ad hoc Open-ended Informal Working Group established by the General Assembly in its resolution 59/24 to study issues relating to the conservation and sustainable use of marine biological biodiversity beyond areas of national jurisdiction. The first meeting of the Working Group was held in New York in 2006. The Authority was represented at the most recent (seventh) meeting of the Working Group, held in New York from 1 to 4 April 2014. In participating in the meetings of the Working Group, the secretariat of the Authority provides technical input on legal and scientific issues. In May 2014, the secretariat also participated, by invitation, in a regional workshop for States members of the Caribbean Community on the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction. The workshop, sponsored by the Government of Jamaica and held in Kingston, provided a valuable opportunity for closer interaction with States members of the Caribbean Community on the work of the Authority, in particular in relation to the marine environment.

73. In March 2014, the secretariat of the Authority participated as an invited observer at an event hosted by the Government of Bermuda in Hamilton to celebrate the signature of the Hamilton Declaration on Collaboration for the Conservation of the Sargasso Sea. The Hamilton Declaration, a non-binding arrangement between the Governments of States bordering the Sargasso Sea and the range States of important species which migrate through or spawn in the Sea, is aimed at promoting collaboration for the purposes of better protecting and conserving its unique environment. One objective of the signatories to the Hamilton Declaration is to pursue conservation measures through existing international and regional organizations, and in this regard the Declaration recognizes the competence of the Authority both in relation to the regulation of activities in the Area and in relation to the protection of the marine environment, pursuant to article 145 of the Convention.

## **XVII. Capacity development, training and outreach**

74. There are two main ways in which the Authority seeks to carry out its responsibilities under articles 143 and 144 of the Convention to promote marine scientific research in the Area and build the capacity of developing States in deep-sea research and technology: the training programmes provided by contractors as part of the contracts for exploration in the Area, and the Endowment Fund for Marine Scientific Research. In addition, since 2011 the Authority has been a host institution under the United Nations-Nippon Foundation of Japan Fellowship Programme for Human Resources Development and Advancement of the Legal Order of the World's Oceans, administered by the Division for Ocean Affairs and the Law of the Sea of the Office of Legal Affairs of the United Nations Secretariat.

### **A. Training provided by contractors**

75. Contractors with the Authority have a legal obligation to provide and fund training opportunities for trainees from developing States and the Authority. The legal basis for this requirement stems from the provisions of the Convention and the 1994 Agreement<sup>2</sup> and is set out in the standard terms of contracts. The purpose of the obligation is to ensure that personnel from developing States are provided with appropriate operational expertise to enable them to participate in deep seabed mining. The training programme is generally formulated following negotiations between the Authority and the contractor and then included as schedule 3 of the contract, subject to periodic performance reporting and review.

76. In 2013, the Legal and Technical Commission began to review the implementation of training under contracts for exploration with a view to assessing the effectiveness of training programmes, achieving a better understanding of the needs and priorities of developing countries with regard to training and providing better guidance to contractors, sponsoring States and the secretariat on the content, structure and implementation of training programmes. As a result, the Commission issued as an interim document a revised set of recommendations for the guidance of contractors and sponsoring States in relation to training programmes under plans of work for exploration ([ISBA/19/LTC/14](#)) with the aim of providing advice to contractors on the implementation of training obligations and assisting the Secretary-General in negotiations with contractors on the development of training programmes. The Commission recommended, among other things, that contractors, as a minimum, should provide for the training equivalent of at least 10 trainees during each five-year period of the contract.

77. On 20 July, the Secretary-General wrote to all existing contractors, inviting them to take due account of the recommendations of the Legal and Technical Commission in considering future revisions to and the development of training programmes. A similar letter was also sent to all applicants whose applications for approval of plans of work for exploration had been approved by the Council.

78. At the nineteenth session, the Legal and Technical Commission selected eight candidates and eight alternates for training opportunities offered by Tonga Offshore

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<sup>2</sup> Specifically, article 144 and annex III, article 15, of the Convention, and section 5 of the annex to the 1994 Agreement.

Mining Limited, the China Ocean Mineral Resources Research and Development and the Federal Institute for Geosciences and Natural Resources of Germany, pursuant to their contracts for exploration. Paul Poloka (Papua New Guinea) and Dody Darmawan (Indonesia) participated in the at-sea training offered by Tonga Offshore Mining Limited between August and October 2013. The training was carried out on the research vessel *Mt. Mitchell* and covered part of the company's manganese nodule survey in the Clarion-Clipperton zone. Subject to their availability, Tchokona Seuwui (Cameroon), Apichai Kanchanapant (Thailand) and Analia Veronica Serra (Argentina) were to participate in the at-sea training offered by the China Ocean Mineral Resources Research and Development between January and April 2014. The training offered by the Federal Institute for Geosciences and Natural Resources of Germany was scheduled to begin between April and May 2014. Khaled Sinoussy Mohamed (Egypt) and Daniel Armando Pérez-Calderón (Mexico) were selected by the Commission to participate in the training programme.

79. In March 2014, the Japan Oil, Gas and Metals National Corporation submitted a training proposal to the Authority, offering three at-sea training opportunities for candidates from developing States; the training is expected to be conducted between May and June 2015 for a duration of 40 days. The secretariat circulated information regarding this opportunity by a note verbale and through the website, requesting nominations to be submitted by 15 June 2014. The Commission will consider the applications and make a selection in July 2014.

80. Based on the applications received for all training opportunities, the secretariat has prepared a roster of suitable candidates, which will be kept up to date so that applicants can be more efficiently matched with future training opportunities. With a view to encouraging more applications, the secretariat prepared flyers for each training programme, which were circulated to member States, including during awareness-raising seminars, and were also posted on the website of the Authority.

## **B. Endowment Fund for Marine Scientific Research**

81. The Endowment Fund for Marine Scientific Research aims to promote and encourage the conduct of marine scientific research in the Area for the benefit of humankind as a whole, in particular by supporting the participation of qualified scientists and technical personnel from developing countries in marine scientific research programmes and offering them the opportunity to participate in training, technical assistance and scientific cooperation programmes. Pursuant to the agreed procedures, an advisory panel was appointed by the Secretary-General in 2011 to evaluate applications for assistance from the Fund. The panel is composed of permanent representatives to the Authority, representatives of educational institutions or international organizations, and individuals closely associated with the work of the Authority. The members of the panel, who serve for a period of three years, are appointed with due regard to equitable geographical representation. New appointments will be made to the panel in 2014.

82. Applications for assistance from the Fund may be made by any developing country or by any other country if the purpose is to benefit scientists from developing countries. In administering the Fund, the secretariat of the Authority is required to endeavour to make arrangements with universities, scientific institutions, contractors and other entities for opportunities for scientists from developing



countries to participate in marine scientific research activities. Such arrangements may include the reduction or waiver of fees for training. The secretariat has carried out a number of activities designed to draw the attention of the international donor community to the opportunities offered by the Fund and to encourage additional contributions. The activities include issuing press releases and promotional materials, maintaining a specially designed web page ([www.isa.org.jm/en/efund](http://www.isa.org.jm/en/efund)) and establishing a network of cooperating institutions that may be interested in offering places in courses or research opportunities. Members of the network to date include the National Oceanography Centre (United Kingdom), the National Institute of Ocean Technology (India), the Institut français de recherche pour l'exploitation de la mer (France), the Federal Institute for Geosciences and Natural Resources (Germany), the National Institute of Oceanography (India), the Natural History Museum (United Kingdom), Duke University (North Carolina, United States) and International Cooperation in Ridge-crest Studies, an international, non-profit organization which promotes interdisciplinary studies of oceanic spreading centres.

83. On 10 February 2014, the eleventh meeting of the advisory panel of the Endowment Fund was held at the headquarters of the Authority. The panel reviewed the implementation of the recommendations made at the previous meeting, selected Renee McDonald (Jamaica) and Abdulkarim Rabi (Nigeria) as candidates for a training programme sponsored by China at the Southwest Indian Ridge, which is scheduled to be conducted in 2014, and recommended approval of an application by the Rhodes Academy of Ocean Law and Policy to provide support for qualified candidates from developing countries for its session in June-July 2014.

84. Since the nineteenth session of the Authority, two awards have been made from the Fund on the recommendation of the advisory panel. The first award, of \$30,000, was made to the Rhodes Academy to help to fund a number of fellowships for students from developing States and to expand the Academy's training programme to cover issues relating to deep seabed marine science. The second award was to provide international travel and medical insurance for a candidate from a developing State to attend an at-sea training course provided by the Portuguese Task Group for the Extension of the Continental Shelf, which is to conduct an oceanographic campaign, using the Portuguese Navy's hydrographical vessel NRP *Almirante Gago Coutinho* and the 6,000 metre-rated remotely operated underwater vehicle *Luso*, from 25 May to 24 June 2014. The cruise will focus on the acquisition of geophysical data (bathymetric, magnetic and gravimetric) and the collection of rocks at or in the vicinity of the mid-Atlantic ridge in the area of the Maxwell fracture zone. After consultation with the Authority, Apitida Wasuwatcharapong, a young geologist from the Department of Mineral Resources of Thailand, was selected by the Task Group from the four candidates proposed for this training opportunity.

85. As at 31 May 2014, 59 scientists or government officials from developing countries have been beneficiaries of financial support from the Endowment Fund. The recipients were from Argentina, Bangladesh, Bolivia (Plurinational State of), Brazil, Cameroon, China, Colombia, the Cook Islands, Costa Rica, Egypt, Fiji, Guyana, India, Indonesia, Jamaica, Madagascar, Maldives, Malta, Mauritania, Mauritius, Namibia, Nigeria, Palau, Papua New Guinea, Peru, the Philippines, the Russian Federation, Sierra Leone, South Africa, Sri Lanka, Suriname, Thailand, Trinidad and Tobago, Tunisia and Viet Nam.

86. The secretariat will continue to take steps to generate interest in the Endowment Fund on the part of potential donors and institutional partners. In this regard, it is noted that, in paragraph 15 of its resolution 68/70, the General Assembly called upon States and international financial institutions, including through bilateral, regional and global cooperation programmes and technical partnerships, to continue to strengthen capacity-building activities, in particular in developing countries, in the field of marine scientific research by, among other things, training personnel to develop and enhance relevant expertise, providing the necessary equipment, facilities and vessels and transferring environmentally sound technologies. The Endowment Fund is one of the key mechanisms for enabling capacity-building in the field of marine scientific research in the deep ocean and the Secretary-General wishes to encourage members of the Authority, other States, relevant international organizations, academic, scientific and technical institutions, philanthropic organizations, corporations and private persons to contribute to the Fund.

### **C. Sensitization seminars**

87. The Authority's primary means of outreach to its member States has been its sensitization seminars. The purpose of the seminars is to inform government officials, marine policymakers and scientists at national and regional institutions of the work of the Authority and to promote the participation of scientists from institutions in developing countries in the marine scientific research being undertaken in the Area by international research organizations. Since 2007, the Authority has convened six such seminars around the world. The previous seminars were held in Manado, Indonesia (March 2007), Rio de Janeiro, Brazil (November 2008), Abuja (March 2009), Madrid (February 2010) and Kingston (March 2011) and at United Nations Headquarters (February 2012).

88. Two further seminars were convened during the reporting period. The first was held in Mexico City in November 2013 and the second at United Nations Headquarters in April 2014. Typically, the seminars include presentations by experts on the type of minerals to be found in the Area, resource evaluation, the protection and preservation of the marine environment from activities in the Area and the process and status of the legal regimes established for the recovery of seabed minerals, as well as on relevant regional issues with regard to the law of the sea. At the most recent seminar, at United Nations Headquarters, delegates were also provided with a briefing by the secretariat on the issues to be considered at the twentieth session of the Authority.

89. The Authority has received requests for future seminars to be convened in Chile, Ghana, South Africa and Uganda and at the headquarters of the African Union. The requests will be considered in the context of the Authority's budget.

## **XVIII. Periodic review under article 154 of the Convention**

90. Article 154 of the Convention requires the Assembly of the International Seabed Authority, every five years from the date of entry into force of the Convention, to undertake a general and systematic review of the manner in which the international regime of the Area established in the Convention has operated in

practice. The purpose of article 154 is to allow the Assembly the opportunity to take, or recommend that other organs take, measures in the light of experience and changing circumstances which will lead to the improvement of the operation of the regime. Article 154 was adopted on the basis that the regime established by the Convention was completely new and had not been tested either by the international community or by any particular State. The regime was, however, subjected to de facto review and modification both by the Preparatory Commission in its work relating to the elaboration of the rules of procedure for the various organs of the Authority and the registration of pioneer investors, and in the informal consultations of the Secretary-General of the United Nations which led to the adoption of the 1994 Agreement.

91. The Convention entered into force on 16 November 1994, with the first review pursuant to article 154 due in 2000. In his annual report to the sixth session of the Authority in 2000 (ISBA/6/A/9, para. 63), the Secretary-General informed the Assembly that the first four years of operation of the Authority had been primarily devoted to the consideration of the organizational issues necessary for the proper functioning of the Authority as an autonomous international organization. The commencement of its operational and substantive activities notwithstanding, the Secretary-General considered that it was too early at that stage to determine whether the regime established by the Convention and the 1994 Agreement had functioned effectively in practice. The Assembly concurred and decided that it was indeed premature for the Assembly to take any measures pursuant to article 154 at that juncture (ISBA/7/A/2, para. 6). Although two further periods of five years have passed since the entry into force of the Convention, the Authority has yet to revisit the issue of the periodic review envisaged under article 154.

92. Since 2000, the Authority has achieved some significant milestones. It has cemented its place as the central authority for the organization and control of activities in the Area. It has adopted and implemented three sets of regulations for exploration for, respectively, polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts, and has entered into contracts for exploration for all three resources. It has also carried out preliminary studies relating to the implementation of article 82, paragraph 4, of the Convention. The first group of exploration contracts issued by the Authority, signed in 2001 and 2002, will come to an end in 2016 and 2017. It is expected that the contractors involved will be in a position at that time to proceed to exploitation. For this reason, and given the significant increase in the level of interest in deep seabed mining, the Council had requested the Legal and Technical Commission to turn its attention to preparations for the formulation of an exploitation code for deep seabed mining. This has led to a significant increase in the workload of the secretariat, the organization and structure of which has remained virtually unchanged since 1996, and to a change of emphasis in the skills required to carry out the work required. In short, a new phase in the life of the Authority is steadily approaching. This new phase involves the reality of deep seabed mining and the prescribed role of the Authority in organizing and monitoring such activities where they pertain to the Area.

93. The year 2014 marks the twentieth anniversary of the establishment of the Authority. In the light of (a) growing interest in the development of marine minerals in the deep seabed, both within the limits of national jurisdiction and in the Area, (b) the increased workload of the secretariat, in particular in the areas of contract administration and supervision, (c) the need to acquire further baseline

environmental data for the lesser known deposits of polymetallic sulphides and cobalt-rich ferromanganese crusts, including the use of standardized taxonomies, and (d) the need to make progress on the development of an appropriate fiscal regime that would allow those contractors in a position to do so to proceed to exploitation, while at the same time safeguarding the interests of the members of the Authority as a whole, the Assembly may wish to take the opportunity to revisit article 154 and review the manner in which the international regime has operated in practice. To ensure that such a strategic review is undertaken in a general and systematic manner, it will be important for the Assembly to prepare the terms of reference and information requirements.



## Annex

### Status of contracts for exploration for polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts

#### A. Contracts for exploration for polymetallic nodules

<i>Contractor</i>	<i>Date of entry into force of contract</i>	<i>Sponsoring State or States</i>	<i>General location of the exploration area under contract</i>	<i>Date of expiry of contract</i>
Interoceanmetal Joint Organization	29 March 2001	Bulgaria, Cuba, Czech Republic, Poland, Russian Federation and Slovakia	Clarion-Clipperton fracture zone	28 March 2016
Yuzhmorgeologiya	29 March 2001	Russian Federation	Clarion-Clipperton fracture zone	28 March 2016
Government of the Republic of Korea	27 April 2001		Clarion-Clipperton fracture zone	26 April 2016
China Ocean Mineral Resources Research and Development Association	22 May 2001	China	Clarion-Clipperton fracture zone	21 May 2016
Deep Ocean Resources Development Co., Ltd.	20 June 2001	Japan	Clarion-Clipperton fracture zone	19 June 2016
Institut français de recherche pour l'exploitation de la mer	20 June 2001	France	Clarion-Clipperton fracture zone	19 June 2016
Government of India	25 March 2002		Central Indian Ocean Basin	24 March 2017
Federal Institute for Geosciences and Natural Resources of Germany	19 July 2006	Germany	Clarion-Clipperton fracture zone	18 July 2021
Nauru Ocean Resources Inc.	22 July 2011	Nauru	Clarion-Clipperton fracture zone (reserved area)	21 July 2026
Tonga Offshore Mining Limited	11 January 2012	Tonga	Clarion-Clipperton fracture zone (reserved area)	10 January 2027
Marawa Research and Exploration Ltd.	Pending signature	Kiribati	Clarion-Clipperton fracture zone (reserved area)	
UK Seabed Resources Ltd.	8 February 2013	United Kingdom of Great Britain and Northern Ireland	Clarion-Clipperton fracture zone	7 February 2028

<i>Contractor</i>	<i>Date of entry into force of contract</i>	<i>Sponsoring State or States</i>	<i>General location of the exploration area under contract</i>	<i>Date of expiry of contract</i>
G-TEC Sea Mineral Resources NV	14 January 2013	Belgium	Clarion-Clipperton fracture zone	13 January 2028

## **B. Contracts for exploration for polymetallic sulphides**

<i>Contractor</i>	<i>Date of entry into force of contract</i>	<i>Sponsoring State or States</i>	<i>General location of the exploration area under contract</i>	<i>Date of expiry of contract</i>
China Ocean Mineral Resources Research and Development Association	18 November 2011	China	Southwest Indian Ridge	17 November 2026
Government of the Russian Federation	29 October 2012		Mid-Atlantic Ridge	28 October 2027
Government of the Republic of Korea	Pending signature		Central Indian Ocean	
Institut français de recherche pour l'exploitation de la mer	Pending signature	France	Mid-Atlantic Ridge	

## **C. Contracts for exploration for cobalt-rich ferromanganese crusts**

<i>Contractor</i>	<i>Date of entry into force of contract</i>	<i>Sponsoring State or States</i>	<i>General location of the exploration area under contract</i>	<i>Date of expiry of contract</i>
Japan Oil, Gas and Metals National Corporation	27 January 2014	Japan	Western Pacific Ocean	26 January 2029
China Ocean Mineral Resources Research and Development Association	29 April 2014	China	Western Pacific Ocean	28 April 2029



## Assembly Council

Distr.: General  
11 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### Report of the Finance Committee

1. During the twentieth session of the International Seabed Authority, the Finance Committee held six meetings, between 8 and 10 July 2014.
2. The following members of the Committee participated in the meetings during the twentieth session: Frida Armas-Pfirter, Trecia Elliott, Olivier Guyonvarch, Han Thein Kyaw, Duncan Muhumuza Laki, Olav Myklebust, David C. M. Wilkens and Shinichi Yamanaka.
3. The following members informed the Secretary-General that they would be unable to attend the session: Aleksey Bakanov, Changxue Chen, Francesca Graziani, Pavel Kavina, Vishnu Datt Sharma and Reinaldo Storani.
4. Following past practice, Nicola Smith participated in the meetings of the Finance Committee prior to her formal election by the Assembly for the remainder of the term of office of Christopher Whomersley, who has resigned.
5. The Committee re-elected Olav Myklebust as Chair and Duncan Muhumuza Laki as Vice-Chair.

#### I. Agenda

6. The Committee discussed and modified its agenda contained in document [ISBA/20/FC/1](#), by adding the item entitled “Status on the implementation of the overhead charges for the administration and supervision of exploration contracts”.

#### II. Budget performance and cost-saving measures

7. The Committee took note of the report on the budget performance for the financial period 1 January 2014 to 31 May 2014.
8. The Committee expressed its appreciation to the Secretary-General on the efforts being made to effect savings in the budget of the Authority.



### **III. Audit report on the finances of the International Seabed Authority for 2013**

9. The Committee considered the report of KPMG on the audit of the accounts of the Authority for the year 2013. The Committee took note of the report and the opinion of the auditors that the financial statements of the Authority give a true and fair view of the financial position of the International Seabed Authority, as at 31 December 2013 and of its financial performance and cash flows for the year ended, in accordance with the financial regulations of the Authority and the United Nations System Accounting Standards.

10. The Committee commended the Secretary-General for the Authority's proper accounting records as highlighted by the Auditors in the report.

11. The Committee requested the Secretary-General to ensure that the auditors use the correct terminology as used in the Financial Regulations. Funds provided for the Working Capital Fund should be referred to as advances, rather than contributions.

12. In reviewing the financial statements for the year ended 31 December 2013, the Committee sought clarification on a number of items, including budget lines with overexpenditures and underexpenditures. The Committee was fully satisfied with the additional information provided by the Secretary-General.

### **IV. Status of the International Seabed Authority Endowment Fund and Voluntary Trust Fund**

13. The Committee took note of the balance of the Endowment Fund in the amount of US\$ 3,493,257, as at 30 June 2014, including accrued interest of \$46,219 intended to be utilized to support the participation of qualified scientists and technical personnel from developing countries in marine scientific research and approved programmes.

14. The Committee expressed its gratitude to the Government of Mexico for the contribution of \$5,000 made on 10 September 2013, to the Government of the United Kingdom of Great Britain and Northern Ireland for the two contributions of \$10,000 each, made on 18 July 2013 and 24 April 2014, respectively, and to the Government of the Republic of Korea for the contribution of \$30,000 made on 3 July 2014 to the Endowment Fund.

15. The Committee took note of the balance of the Voluntary Trust Fund in the amount of \$237,300, as at 30 June 2014.

16. The Committee expressed its gratitude to the Government of Japan for the contribution of \$44,760 made on 20 September 2013 and to the Government of Norway for the contribution of \$99,224 made on 27 June 2014.

17. The Committee requested the Secretary-General to prepare a report on the possibility, from a legal perspective, of considering advances from the Endowment Fund to the Voluntary Trust Fund as grants, for its meeting in 2015.



## **V. Potential interest gains from transferring funds of the Voluntary Trust Fund**

18. The Committee reviewed document [ISBA/20/FC/CRP.1](#) on the potential interest gains from transferring funds of the Voluntary Trust Fund from JP Morgan Chase Bank N.A. into short-term deposits at Scotia Investments Jamaica Ltd.

19. The Committee noted with satisfaction the higher interest earnings that would be gained by the investment of funds of the Voluntary Trust Fund into a short-term deposit at Scotia Investments Jamaica Ltd.

20. The Committee requested the Secretary-General to take the necessary steps to transfer funds of the Voluntary Trust Fund into short-term deposits at Scotia Investments Jamaica Ltd.

## **VI. Working Capital Fund**

21. The Committee took note of the status of the Working Capital Fund as at 30 June 2014 with advances of \$558,245 out of a ceiling of \$560,000.

22. The Committee noted that each Member State's share of the Working Capital Fund does not correspond with the latest scale of assessment. The Committee will revisit this issue in the context of the next revision of the level of the Working Capital Fund.

## **VII. Status of the implementation of the overhead charges for the administration and supervision of exploration contracts**

23. The Committee considered document [ISBA/20/FC/CRP.3](#), entitled "Status of the implementation of Assembly decision [ISBA/19/A/12](#) on the overhead charge".

24. The Committee took note of the report provided by the Secretary-General on the potential income to be gained on the if the Authority was able to successfully renegotiate the contractual obligations to include the annual standard overhead charge of \$47,000 with a number of relevant contractors.

25. The Committee noted that, of the 16 relevant contracts, Deep Ocean Resources Development Ltd., the Federal Institute for Geosciences and Natural Resources of the Federal Republic of Germany, Tonga Offshore Mining Limited, G-TEC Sea Mineral Resources N.V. had agreed to amend their contracts and to pay the overhead charges; UK Seabed Resources Ltd. had paid the overhead charge for 2014, but the contract was yet to be amended in accordance with decision [ISBA/19/A/12](#).

26. The Committee noted with appreciation the progress of the Secretary-General in the negotiation of the overhead charges and encouraged him to continue his consultations with the remaining contractors to ensure equitable burden-sharing among all contractors.

## **VIII. Adoption of International Public Sector Accounting Standards**

27. The Committee took note of the report of the Secretary-General on the adoption of the International Public Services Accounting Standards (IPSAS) ([ISBA/20/FC/3](#)).

28. The Committee recognized the importance of the adoption of IPSAS in view of the Authority's participation in the United Nations Common System and noted the significant benefits of the implementation of IPSAS with regard to the quality, comparability and credibility of financial reporting, with consequential improvements anticipated with respect to accountability, transparency and governance.

29. The Committee recommends that the Council and the Assembly of the Authority request the Secretary-General to take the necessary steps to adopt IPSAS in the forthcoming biennium.

## **IX. Budget for the financial period 2015-2016**

30. The Committee examined the proposed budget of the International Seabed Authority for the financial period 2015-2016 ([ISBA/20/A/3-ISBA/20/C/10](#)) in the amount of \$16,921,115, an increase of 18.22 per cent over the amount for the previous biennium. In examining the budget, the Committee considered the increase in the core work of the Authority and the overall increase in the proposed budget for 2015-2016 in relation to that for 2013-2014. It also considered proposed increases in costs related to staffing, consultants, ad hoc expert work groups, official travel, communications, training, library books, acquisition of furniture and equipment, miscellaneous services, information technology, building management and conference services. The Committee also considered the addition of two new budget items, International Seabed Authority museum and IPSAS implementation.

31. The Committee considered the proposal of the Secretary-General that a museum be constructed at the Authority with a twofold objective, namely: (a) public outreach; and (b) education. The Committee thanked the Secretary General for his preparatory work on the proposal for an International Seabed Authority museum and noted that the proposed budget for the construction and maintenance of the museum was a total of \$761,300 for the current biennium. The proposal was discussed in detail and there were differing views as to whether the proposed museum should be a priority for the Authority at this time. Other options for raising public awareness and education in respect of the Authority's work were also considered. The Committee also noted with appreciation the generosity of the host country in providing the physical space to house the museum. The Committee concluded that the museum should not be included in the budget of the Authority for the forthcoming biennium.

32. Following discussions in the Committee, the Secretary-General revised the proposed budget. The Committee decided to recommend for approval the revised budget for the financial period 2015-2016 in the amount of \$15,743,143, as contained in annex I to the present report. The revised budget reflects an increase of 9.99 per cent over the amount for the previous biennium.

33. The Committee requested the Secretary-General to review the balance between the established posts in the secretariat and the use of external consultants, in order to ensure that the Authority continues to develop the best possible institutional competence in relevant areas of expertise while keeping costs low, and to report to the Committee on this, in conjunction with the proposal for the next budget.

34. The Committee expressed gratitude to the Secretary-General for providing further details, upon request, on several budget items and said that it would welcome receiving further details in the narrative of the budget proposals in future as to the breakdown of projected cost in respect of large items of expenditure, or those items in which a significant variance was proposed.

35. The Committee also recommended that, for the financial period 2015-2016, the Secretary-General be authorized to transfer between appropriation sections up to 20 per cent of the amount in each section.

36. The Committee expressed its appreciation that, as requested in paragraph 26 of its 2013 report (ISBA/19/C/11), for the first time, the budget proposal for the biennium 2015-2016 contained an income section, and therein a statement of estimated miscellaneous income in the course of the next financial period, in accordance with regulation 6.3 (b) of the Financial Regulations.

37. The new income section reflects the different sources of income available to finance the Authority's general administrative budget: contributions from member States, savings from the previous biennium and miscellaneous income, which is primarily the overhead charges and application fees.

38. The estimate of the miscellaneous income takes into account the expected overhead charges for 2015 and 2016. The Committee noted that the estimate only contains those contracts in which the contractual obligation to pay the overhead charges has already been established. The figure will increase once contracts under the pending applications are signed or further existing contractors agree to a contract revision.

39. The Committee noted that, while the revised budget proposal foresees an increase of 9.99 per cent over the next biennium, contributions from member States will decrease by 13.62 per cent in comparison to the last biennium.

40. The Committee emphasized this important milestone on the way to achieving the Authority's goal of generating sufficient income to meet its administrative expenses from sources other than contributions. This achievement is in part a consequence of the 2013 decision to institute a fixed overhead charge for contractors.

## **X. Scale of assessments for 2015-2016**

41. The Committee recommends that, in line with article 160 (2) (e) of the United Nations Convention on the Law of the Sea, the scale of assessments relating to the administrative budget of the International Seabed Authority for 2015-2016 be based on the scale of assessments used for the regular budget of the United Nations for 2013 and 2014, respectively, taking into account the ceiling assessment rate of 22 per cent and the floor assessment rate of 0.01 per cent. An indicative table of assessed contributions for 2015 is set out in annex II.

42. Taking into account the increased income from sources other than assessed contributions, member States will consequently be required to finance an amount that is estimated to be \$1,853,526 less than the amount financed for the biennium 2013-2014.

## XI. Other matters

43. The Committee considered document [ISBA/20/FC/2](#), entitled “New member of the International Seabed Authority”. The Committee recommended that the Niger, which had become a member of the Authority on 6 September 2013, pay the amounts shown below as its contributions to the general administrative budget of the Authority for 2013 and 2014, as well as advances to the Working Capital Fund. Such contributions should be credited as miscellaneous income, in accordance with regulation 7.1 of the Authority’s Financial Regulations.

New member State	Date membership began	United Nations scale of assessment (percentage)		Adjusted International Seabed Authority scale (percentage)		Contributions to the general administrative budget (United States dollars)		Advances to the Working Capital Fund (United States dollars)	
		2013	2014	2013	2014	2013	2014	2013	2014
Niger	6 September 2013	0.002	0.002	0.001	0.001	22.1	671	37.5	12.5
<b>Total</b>						<b>22.1</b>	<b>671.0</b>	<b>37.5</b>	<b>12.5</b>

44. The Committee discussed the role of the Finance Committee in the development of the exploitation Code. The Committee noted that the development of the exploitation code would increase the work of the Committee, especially in the area of determining a fiscal regime.

45. The Committee expressed its concern about the low attendance of its members at its meetings. In view of the expected increase in the workload of the Authority, it was underscored that Finance Committee members must fulfil their appointed obligations to the Authority.

46. The Committee expressed its concern about the outstanding contributions from member States for prior periods (1998-2014) in the amount of \$247,455 and requested the Secretary-General, at his discretion, to continue his efforts to recover those amounts.

## XII. Recommendations of the Finance Committee

47. In the light of the foregoing, the Committee recommended that the Council and the Assembly of the Authority:

(a) *Approve* the budget for the financial period 2015-2016, in the amount of \$15,743,143, as proposed by the Secretary-General;

(b) *Approve* the adoption of the IPSAS by the Authority in the biennium 2015-2016;

(c) *Authorize* the Secretary-General to establish the scale of assessments for 2015 and 2016 on the basis of the scale used for the regular budget of the expenses



of the United Nations for 2013-2014, respectively, taking into account that the ceiling assessment rate will be 22 per cent and the floor rate 0.01 per cent;

(d) *Authorize* the Secretary-General for each year, 2015 and 2016, to transfer between appropriation sections up to 20 per cent of the amount in each section;

(e) *Strongly encourage* the contractors that are still considering their position to accept the annual overhead charge related to the administration and supervision of their contracts to ensure equitable burden-sharing among all contractors;

(f) *Urge* the members of the Authority to pay their assessed contributions to the budget on time and in full;

(g) *Appeal* to the members of the Authority to pay outstanding contributions to the budget of the Authority from previous years as soon as possible and request the Secretary-General, at his discretion, to continue his efforts to recover these amounts;

(h) *Strongly encourage* members to make voluntary contributions to the Endowment Fund and Voluntary Trust Fund of the Authority.

## Annex I

### Summary of budgetary requirements for the International Seabed Authority for the period from 1 January 2015 to 31 December 2016

(Thousands of United States dollars)

	Approved for			Total for 2015/2016	Increase/(decrease)	
	2013/2014	2015	2016		Amount	Percentage
<b>Part 1. Administrative expenses of the secretariat</b>						
<b>Section 1</b>						
Established posts	6 023.6	3 040.6	3 040.6	6 081.2	57.6	1.0
General temporary assistance	30.0	14.8	15.2	30.0	0.0	0.0
Overtime	31.6	15.8	15.8	31.6	0.0	0.0
Consultants	190.0	157.5	157.5	315.0	125.0	65.8
Promotion and encouragement of the conduct of marine scientific research	100.0	50.0	50.0	100.0	0.0	0.0
Ad hoc expert groups	450.9	266.9	304.0	570.9	120.0	26.6
Central data repository	130.0	65.0	65.0	130.0	0.0	0.0
Common staff costs	2 706.3	1 341.4	1 364.9	2 706.3	0.0	0.0
<b>Subtotal (section 1)</b>	<b>9 662.5</b>	<b>4 952.0</b>	<b>5 013.1</b>	<b>9 965.0</b>	<b>302.6</b>	<b>3.1</b>
<b>Section 2</b>						
Official travel	325.1	237.7	242.4	480.1	155.0	47.7
<b>Subtotal (section 2)</b>	<b>325.1</b>	<b>237.7</b>	<b>242.4</b>	<b>480.1</b>	<b>155.0</b>	<b>47.7</b>
<b>Section 3</b>						
Communications	160.1	98.8	102.0	200.7	40.6	25.4
External printing	100.0	49.9	50.1	100.0	0.0	0.0
Training	52.1	33.0	30.0	63.0	10.9	20.9
Library books	100.0	68.0	68.0	136.0	36.0	36.1
Official hospitality	22.0	11.0	11.0	22.0	0.0	0.0
Acquisition of furniture and equipment	60.9	178.4	84.2	262.7	201.8	331.4
Rental and maintenance of furniture and equipment	23.0	11.3	11.7	23.0	0.0	0.0
Supplies and materials	80.3	39.5	40.8	80.3	0.0	0.0
Miscellaneous services	109.6	54.0	55.6	109.6	0.0	0.0
Information technology	120.9	105.6	65.9	171.5	50.6	41.9
Audit fees	34.6	17.3	17.3	34.6	0.0	0.0
United Nations common system	166.0	83.0	83.0	166.0	0.0	0.0
IPSAS	0.0	60.0	60.0	120.0	120.0	100.0
<b>Subtotal (section 3)</b>	<b>1 029.4</b>	<b>809.7</b>	<b>679.5</b>	<b>1 489.4</b>	<b>460.0</b>	<b>44.7</b>

	Approved for			Total for 2015/2016	Increase/(decrease)	
	2013/2014	2015	2016		Amount	Percentage
Section 4						
Building management	776.9	482.8	394.1	876.9	100.0	12.9
<b>Subtotal (section 4)</b>	<b>776.9</b>	<b>482.8</b>	<b>394.1</b>	<b>876.9</b>	<b>100.0</b>	<b>12.9</b>
<b>Total, part 1 (sections 1-4)</b>	<b>11 793.8</b>	<b>6 482.2</b>	<b>6 329.1</b>	<b>12 811.4</b>	<b>1 017.6</b>	<b>8.6</b>
Part 2. Conference-servicing costs of the Authority						
Conference services	2 518.9	1 465.9	1 465.9	2 931.7	412.8	16.4
<b>Total, part 2</b>	<b>2 518.9</b>	<b>1 465.9</b>	<b>1 465.9</b>	<b>2 931.7</b>	<b>412.8</b>	<b>16.4</b>
<b>Grand total</b>	<b>14 312.7</b>	<b>7 948.1</b>	<b>7 795.0</b>	<b>15 743.1</b>	<b>1 430.4</b>	<b>9.99</b>

Abbreviation: IPSAS, International Public Sector Accounting Standards.

### International Seabed Authority: income, expenses and miscellaneous income

(Thousands of United States dollars)

#### Income

Contributions from member States	11 759.4
Estimated savings (biennium 2013-2014)	781.4
Miscellaneous income	3 202.3

<b>Total</b>	<b>15 743.1</b>
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#### Expenses

Budgetary requirements	15 743.1
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<b>Total</b>	<b>15 743.1</b>
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#### Miscellaneous income

Miscellaneous income accumulated during 2013	2 121.3
Expected overhead charges 2015	376.0
Expected overhead charges 2016	705.0

<b>Total</b>	<b>3 202.3</b>
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## Annex II

### Indicative scale of assessed contributions for 2015

#### Based on regular budget scale of the United Nations for 2013

(United States dollars)

Biennium budget approved	15 743 143
Less: surplus of 13-14 biennium	-3 983 721
<b>Total net requirements</b>	<b>11 759 422</b>
Net requirements for each year	5 879 711
<b>Total assessed less European Union (\$100 000)</b>	<b>5 779 711</b>
<b>Total fixed floor rate</b>	<b>43 928</b>

<i>No.</i>	<i>Country</i>	<i>United Nations assessment (percentage)</i>	<i>International Seabed Authority assessment (percentage)</i>	<i>United States dollar</i>
1.	Albania	0.010	0.010	578
2.	Algeria	0.137	0.184	10 663
3.	Angola	0.010	0.010	578
4.	Antigua and Barbuda	0.002	0.010	578
5.	Argentina	0.432	0.582	33 625
6.	Armenia	0.007	0.010	578
7.	Australia	2.074	2.793	161 431
8.	Austria	0.798	1.075	62 113
9.	Bahamas	0.017	0.023	1 323
10.	Bahrain	0.039	0.053	3 036
11.	Bangladesh	0.010	0.010	578
12.	Barbados	0.008	0.010	578
13.	Belarus	0.056	0.075	4 359
14.	Belgium	0.998	1.344	77 680
15.	Belize	0.001	0.010	578
16.	Benin	0.003	0.010	578
17.	Bolivia	0.001	0.010	578
18.	Bosnia and Herzegovina	0.017	0.023	1 323
19.	Botswana	0.017	0.023	1 323
20.	Brazil	2.934	3.951	228 370
21.	Brunei Darussalam	0.026	0.035	2 024
22.	Bulgaria	0.047	0.063	3 658
23.	Burkina Faso	0.003	0.010	578
24.	Cameroon	0.012	0.016	934
25.	Canada	2.984	4.019	232 261

<i>No.</i>	<i>Country</i>	<i>United Nations assessment (percentage)</i>	<i>International Seabed Authority assessment (percentage)</i>	<i>United States dollar</i>
26.	Cape Verde	0.001	0.010	578
27.	Chad	0.002	0.010	578
28.	Chile	0.334	0.450	25 997
29.	China	5.148	6.933	400 698
30.	Comoros	0.001	0.010	578
31.	Congo	0.005	0.010	578
32.	Cook Islands	0.005	0.010	578
33.	Costa Rica	0.038	0.051	2 958
34.	Côte d'Ivoire	0.011	0.015	856
35.	Croatia	0.126	0.170	9 807
36.	Cuba	0.069	0.093	5 371
37.	Cyprus	0.047	0.063	3 658
38.	Czech Republic	0.386	0.520	30 045
39.	Democratic Republic of the Congo	0.003	0.010	578
40.	Denmark	0.675	0.909	52 539
41.	Djibouti	0.001	0.010	578
42.	Dominica	0.001	0.010	578
43.	Dominican Republic	0.045	0.061	3 503
44.	Ecuador	0.044	0.059	3 425
45.	Egypt	0.134	0.180	10 430
46.	Equatorial Guinea	0.010	0.010	578
47.	Estonia	0.040	0.054	3 113
48.	Fiji	0.003	0.010	578
49.	Finland	0.519	0.699	40 397
50.	France	5.593	7.532	435 335
51.	Gabon	0.020	0.027	1 557
52.	Gambia	0.001	0.010	578
53.	Georgia	0.007	0.010	578
54.	Germany	7.141	9.617	555 825
55.	Ghana	0.014	0.019	1 090
56.	Greece	0.638	0.859	49 659
57.	Grenada	0.001	0.010	578
58.	Guatemala	0.027	0.036	2 102
59.	Guinea	0.001	0.010	578
60.	Guinea-Bissau	0.001	0.010	578
61.	Guyana	0.001	0.010	578
62.	Haiti	0.003	0.010	578
63.	Honduras	0.008	0.010	578
64.	Hungary	0.266	0.358	20 704



<i>No.</i>	<i>Country</i>	<i>United Nations assessment (percentage)</i>	<i>International Seabed Authority assessment (percentage)</i>	<i>United States dollar</i>
65.	Iceland	0.027	0.036	2 102
66.	India	0.666	0.897	51 839
67.	Indonesia	0.346	0.466	26 931
68.	Iraq	0.068	0.092	5 293
69.	Ireland	0.418	0.563	32 535
70.	Italy	4.448	5.990	346 213
71.	Jamaica	0.011	0.015	856
72.	Japan	10.833	14.589	843 194
73.	Jordan	0.022	0.030	1 712
74.	Kenya	0.013	0.018	1 012
75.	Kiribati	0.001	0.010	578
76.	Kuwait	0.273	0.368	21 249
77.	Lao People's Democratic Republic	0.002	0.010	578
78.	Latvia	0.047	0.063	3 658
79.	Lebanon	0.042	0.057	3 269
80.	Lesotho	0.001	0.010	578
81.	Liberia	0.001	0.010	578
82.	Lithuania	0.073	0.098	5 682
83.	Luxembourg	0.081	0.109	6 305
84.	Madagascar	0.003	0.010	578
85.	Malawi	0.002	0.010	578
86.	Malaysia	0.281	0.378	21 872
87.	Maldives	0.001	0.010	578
88.	Mali	0.004	0.010	578
89.	Malta	0.016	0.022	1 245
90.	Marshall Islands	0.001	0.010	578
91.	Mauritania	0.002	0.010	578
92.	Mauritius	0.013	0.018	1 012
93.	Mexico	1.842	2.481	143 373
94.	Micronesia (Federated States of)	0.001	0.010	578
95.	Moldova	0.001	0.010	578
96.	Monaco	0.012	0.016	934
97.	Mongolia	0.003	0.010	578
98.	Montenegro	0.005	0.010	578
99.	Morocco	0.062	0.083	4 826
100.	Mozambique	0.003	0.010	578
101.	Myanmar	0.010	0.010	578
102.	Namibia	0.010	0.010	578
103.	Nauru	0.001	0.010	578

<i>No.</i>	<i>Country</i>	<i>United Nations assessment (percentage)</i>	<i>International Seabed Authority assessment (percentage)</i>	<i>United States dollar</i>
104.	Nepal	0.006	0.010	578
105.	Netherlands	1.654	2.227	128 740
106.	New Zealand	0.253	0.341	19 692
107.	Nicaragua	0.003	0.010	578
108.	Niger	0.002	0.010	578
109.	Nigeria	0.090	0.121	7 005
110.	Niue	0.090	0.121	7 005
111.	Norway	0.851	1.146	66 238
112.	Oman	0.102	0.137	7 939
113.	Pakistan	0.085	0.114	6 616
114.	Palau	0.001	0.010	578
115.	Panama	0.026	0.035	2 024
116.	Papua New Guinea	0.004	0.010	578
117.	Paraguay	0.010	0.010	578
118.	Philippines	0.154	0.207	11 987
119.	Poland	0.921	1.240	71 687
120.	Portugal	0.474	0.638	36 894
121.	Qatar	0.209	0.281	16 268
122.	Republic of Korea	1.994	2.685	155 204
123.	Romania	0.226	0.304	17 591
124.	Russian Federation	2.438	3.283	189 763
125.	Saint Kitts and Nevis	0.001	0.010	578
126.	Saint Lucia	0.001	0.010	578
127.	Saint Vincent and the Grenadines	0.001	0.010	578
128.	Samoa	0.001	0.010	578
129.	Sao Tome and Principe	0.001	0.010	578
130.	Saudi Arabia	0.864	1.164	67 250
131.	Senegal	0.006	0.010	578
132.	Serbia	0.040	0.054	3 113
133.	Seychelles	0.001	0.010	578
134.	Sierra Leone	0.001	0.010	578
135.	Singapore	0.384	0.517	29 889
136.	Slovakia	0.171	0.230	13 310
137.	Slovenia	0.100	0.135	7 784
138.	Solomon Islands	0.001	0.010	578
139.	Somalia	0.001	0.010	578
140.	South Africa	0.372	0.501	28 955
141.	Spain	2.973	4.004	231 405
142.	Sri Lanka	0.025	0.034	1 946

<i>No.</i>	<i>Country</i>	<i>United Nations assessment (percentage)</i>	<i>International Seabed Authority assessment (percentage)</i>	<i>United States dollar</i>
143.	Sudan	0.010	0.010	578
144.	Suriname	0.004	0.010	578
145.	Swaziland	0.003	0.010	578
146.	Sweden	0.960	1.293	74 722
147.	Switzerland	1.047	1.410	81 494
148.	Thailand	0.239	0.322	18 603
149.	The former Yugoslav Republic of Macedonia	0.008	0.010	578
150.	Timor-Leste	0.002	0.010	578
151.	Togo	0.001	0.010	578
152.	Tonga	0.001	0.010	578
153.	Trinidad and Tobago	0.044	0.059	3 425
154.	Tunisia	0.036	0.048	2 802
155.	Tuvalu	0.001	0.010	578
156.	Uganda	0.006	0.010	578
157.	Ukraine	0.099	0.133	7 706
158.	United Kingdom of Great Britain and Northern Ireland	5.179	6.975	403 111
159.	United Republic of Tanzania	0.009	0.010	578
160.	Uruguay	0.052	0.070	4 047
161.	Vanuatu	0.001	0.010	578
162.	Viet Nam	0.042	0.057	3 269
163.	Yemen	0.010	0.010	578
164.	Zambia	0.006	0.010	578
165.	Zimbabwe	0.002	0.010	578
		<b>73.96</b>	<b>100.00</b>	<b>5 779 716</b>
<b>International organizations in accordance with annex IX</b>				
166	European Union			100 000
				<b>5 879 716</b>

## Annex III

### Secretariat of the International Seabed Authority: staffing table

<i>Functional title</i>	<i>Professional</i>	<i>General Service</i>
<b>Office of the Secretary-General</b>		
Secretary-General	1 (USG)	
Associate Protocol Officer	1 (P-2)	
Executive Assistant		1
Protocol/Administrative Assistant		1
Administrative Assistant (New York office)		1
<b>Office of Legal Affairs</b>		
Legal Adviser/Deputy to the Secretary-General	1 (D-2)	
Senior Legal Officer	1 (P-5)	
Legal Officer	1 (P-4)	
Legal Officer	1 (P-4)	
Librarian	1 (P-3)	
Administrative Assistant		1
Administrative Assistant		1
<b>Office of Resources and Environmental Monitoring</b>		
Head of office	1 (D-1)	
Senior Scientific Officer	1 (P-5)	
Scientific Officer (Marine Geologist)	1 (P-5)	
Scientific Officer (Marine Biologist)	1 (P-4)	
Scientific Officer (GIS)	1 (P-3)	
Marine Science Assistant		1
Information and Communication Technology Officer	1 (P-4)	
Webmaster/Publications Officer	1 (P-3)	
Information Technology Assistant		1
<b>Office of Administration and Management</b>		
Executive Officer	1 (P-5)	
Administrative Assistant		1
Budget/Internal Oversight Officer	1 (P-4)	
Finance Officer	1 (P-4)	
Human Resources Officer	1 (P-3)	
Human Resources Assistant		1
Procurement Assistant		1
Budget and Treasury Assistant		1
Finance Assistant		1
Senior Security Officer	1 (P-2)	
Security Officer		1

<i>Functional title</i>	<i>Professional</i>	<i>General Service</i>
Security Officer		1
Driver		1
Driver		1
Driver		1
<b>Total posts</b>	<b>20</b>	<b>17</b>

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# Assembly

Distr.: General  
24 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

## **Decision of the Assembly of the International Seabed Authority relating to the election to fill the vacancies on the Council of the Authority in accordance with article 161, paragraph 3, of the United Nations Convention on the Law of the Sea**

*The Assembly of the International Seabed Authority,*

*Recalling* that, in accordance with article 161, paragraph 3, of the United Nations Convention on the Law of the Sea,

“Elections shall take place at regular sessions of the Assembly. Each member of the Council shall be elected for four years”,

*Elects* the following to fill the vacancies in the Council of the International Seabed Authority for a four-year period as from 1 January 2015, subject to the understandings reached in the regional and interest groups:<sup>1</sup>

### **Group A**

Italy<sup>2</sup>

Russian Federation

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<sup>1</sup> The agreed allocation of seats on the Council is 10 seats to the African Group, 9 seats to the Asian Group, 8 seats to the Western European and Others Group, 7 seats to the Latin American and Caribbean Group and 3 seats to the Eastern European Group. Since the total number of seats allocated according to that formula is 37, it is understood that, in accordance with the understanding reached in 1996 (ISBA/A/L.8), each regional group other than the Eastern European Group will relinquish a seat in rotation. The regional group which relinquishes a seat will have the right to designate a member of that group to participate in the deliberations of the Council without the right to vote during the period the regional group relinquishes the seat.

<sup>2</sup> Italy would relinquish its seat in Group A in favour of the United States if the United States became a member of the Authority; this does not prejudice the position of any country with respect to any intervening election to the Council.



**Group B**

France  
Germany<sup>3</sup>  
Republic of Korea

**Group C**

Australia<sup>4</sup>  
Chile<sup>5</sup>

**Group D**

Fiji  
Jamaica  
Lesotho

**Group E**

Cameroon  
Ghana  
Indonesia<sup>6</sup>  
Mexico  
Nigeria  
Singapore  
Tonga

*149th meeting  
24 July 2014*

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<sup>3</sup> Germany is re-elected for a period of four years (2015-2018), on the understanding that Belgium will occupy the seat in Group B for the year 2016.

<sup>4</sup> Australia is re-elected for a period of four years (2015-2018), on the understanding that in 2017 it will relinquish its seat in Group C to Indonesia. Australia will be a member of Group E in 2017.

<sup>5</sup> Chile is re-elected for a period of four years (2015-2018), on the understanding that in 2018 it will relinquish its seat in Group C to Indonesia. Chile will be a member of Group E in 2018.

<sup>6</sup> Indonesia is re-elected to the Council for a period of four years (2015-2018) on the understanding that in 2017 it will relinquish its seat in Group E to Australia and will occupy the seat in Group C relinquished by Australia, and in 2018 Indonesia will relinquish its seat in Group E to Chile and will occupy the seat in Group C relinquished by Chile.



## Assembly

Distr.: General  
24 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Decision of the Assembly of the International Seabed Authority relating to amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area**

*The Assembly of the International Seabed Authority,*

*Having considered* the amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area,<sup>1</sup> as provisionally adopted by the Council at its 198th meeting on 18 July 2014,<sup>2</sup>

*Approves* the amendments to regulation 21 as contained in the annex to the present decision.

*149th meeting*  
*24 July 2014*

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<sup>1</sup> ISBA/19/C/17, annex.

<sup>2</sup> ISBA/20/C/23.



## **Annex**

Regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area<sup>1</sup> is amended by the insertion of the following new paragraph immediately following paragraph 6:

7. The Legal and Technical Commission may recommend approval of a plan of work if it determines that such approval would not permit a State Party or entities sponsored by it to monopolize the conduct of activities in the Area with regard to polymetallic nodules or to preclude other States parties from activities in the Area with regard to polymetallic nodules.

Paragraphs 7 to 11 of regulation 21 are to be renumbered accordingly.

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## Assembly

Distr.: General  
24 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Decision of the Assembly of the International Seabed Authority relating to amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area**

*The Assembly of the International Seabed Authority,*

*Having considered* the amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, as provisionally adopted by the Council at its 198th meeting on 18 July 2014,<sup>1</sup>

*Approves* the amendments to regulation 21 as contained in the annex to the present decision.

*149th meeting*  
*24 July 2014*

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<sup>1</sup> ISBA/20/C/22.



## **Annex**

### **Regulation 21 Fee for applications**

1. The fee for processing an application for approval of a plan of work for exploration of polymetallic sulphides shall be a fixed amount of 500,000 United States dollars or its equivalent in a freely convertible currency, to be paid in full at the time of the submission of an application.
  2. If the administrative costs incurred by the Authority in processing an application are less than the fixed amount indicated in paragraph 1 above, the Authority shall refund the difference to the applicant. If the administrative costs incurred by the Authority in processing an application are more than the fixed amount indicated in paragraph 1 above, the applicant shall pay the difference to the Authority, provided that any additional amount to be paid by the applicant shall not exceed 10 per cent of the fixed fee referred to in paragraph 1.
  3. Taking into account any criteria established for this purpose by the Finance Committee, the Secretary-General shall determine the amount of such differences as indicated in paragraph 2 above and notify the applicant of the amount. The notification shall include a statement of the expenditure incurred by the Authority. The amount due shall be paid by the applicant or reimbursed by the Authority within three months of the signing of the contract referred to in regulation 25 below.
  4. The fixed amount referred to in paragraph 1 above shall be reviewed on a regular basis by the Council in order to ensure that it covers the expected administrative costs of processing applications and to avoid the need for applicants to pay additional amounts in accordance with paragraph 2 above.
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# Assembly

Distr.: General  
31 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

## **Statement by the President on the work of the Assembly of the International Seabed Authority at its twentieth session**

1. The twentieth session of the Assembly of the International Seabed Authority was held in Kingston from 14 to 25 July 2014.

### **I. Adoption of the agenda**

2. At its 143rd meeting, on 15 July 2014, the Assembly adopted its agenda for the twentieth session ([ISBA/20/A/1](#)).

### **II. Election of the President and Vice-Presidents of the Assembly**

3. At the same meeting, Antonio Francisco Da Costa e Silva Neto (Brazil) was elected President of the Assembly for the twentieth session. Following consultations in the regional groups, the representatives of Nigeria (African States), China (Asia-Pacific States), France (Western European and Other States) and the Russian Federation (Eastern European States) were elected Vice-Presidents.

### **III. Election to fill a vacancy on the Finance Committee**

4. Also at the same meeting, the Assembly elected Nicola Smith (United Kingdom of Great Britain and Northern Ireland) as a member of the Finance Committee for the remainder of the term of Chris Whomersley (United Kingdom), who had resigned.

### **IV. Request for observer status in the Assembly**

5. At its 143rd meeting, the Assembly considered requests for observer status by the Deep Sea Conservation Coalition and by the Committee for Mineral Reserves

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\* Reissued for technical reasons on 8 October 2014.



International Reporting Standards, two non-governmental organizations, and decided to invite both organizations to participate as observers in its meetings, pursuant to rule 82, paragraph 1 (e), of the rules of procedure of the Assembly.

## **V. Commemoration of the twentieth anniversary of the International Seabed Authority**

6. The Assembly held a one-day special event at its 144th and 145th meetings, on Tuesday, 22 July 2014, to commemorate the twentieth anniversary of the establishment of the International Seabed Authority.

7. During the day-long special session, the Assembly heard from distinguished guests, most of whom were instrumental in the establishment of the Authority. In his opening address, the President of the Assembly pointed to the historic importance of the special session, describing it as “a momentous occasion” for the Authority and the world, a theme that resounded in speeches throughout the day-long celebration. In welcoming the Prime Minister of Jamaica to the event, the President underscored the host country’s contribution to the work of the Authority.

8. Describing the Authority as “a radical establishment that is as vital today as it was 20 years ago”, Portia Simpson Miller, Prime Minister of Jamaica, said that there were some critical issues that the Authority must continue to address. Among them were the management and governance of mineral resources of the deep seabed, the sharing of those resources and the development of new mining techniques to protect the marine environment.

9. A message from the Secretary-General of the United Nations was delivered by the Assistant Secretary-General for Legal Affairs, Stephen Mathias, who noted that the ongoing development by the Authority of a comprehensive set of rules governing seabed mining would go a long way towards helping States derive tangible benefits from the deep seabed Area.

10. The Secretary-General of the Authority, Nii Allotey Odunton, said that there was urgent need for rationalization of data related to marine mineral resources. The Authority also needed more baseline environmental data, including the use of standardized taxonomies, for deposits, fauna and species of which very little was known. It would be important at the mining stage to have access to data, nomenclature and taxonomy references for the deposits.

11. Tommy Koh, Ambassador-at-Large, Ministry of Foreign Affairs of Singapore, in a keynote speech, said that the visibility of the Authority must be raised to inform the world about its important mission. The Authority should enhance its outreach programme, and also encourage the leading law schools of the world to teach a module on Part XI of the United Nations Convention on the Law of the Sea, covering seabed mining provisions.

12. Satya N. Nandan, the first Secretary-General of the Authority (1996-2008), said that the next stage of the Authority’s work must relate to the priority item of developing a regulatory regime for exploitation of deep seabed minerals. That should be done in a timely manner. The credibility of the Authority depended very much on the confidence that it generated among its members as well as among those willing to work with it in the development of the common heritage resources.

13. Statements were also made by José Luis Jesus, member of the International Tribunal for the Law of the Sea and former Chair of the Preparatory Commission for the International Seabed Authority (1987-1994); Hasjim Djalal, first President of the Assembly of the Authority (1996); Vladimir Golitsyn, President of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea (on behalf of the President of the Tribunal); Mumba Kapumpa, Ambassador of Zambia to the Republic of Korea; Baïdy Diène, former President of the Council of the International Seabed Authority (2004) and member of the Legal and Technical Commission (2002-2011); and the Chairs of the five regional groups. Some individual delegations and observers spoke, including Fiji, on behalf of the Pacific small island developing States, Mexico, Trinidad and Tobago, Indonesia, Tonga, South Africa, Bangladesh, Fiji, Cuba, India, the Philippines, Senegal, Guyana, Brazil, Panama, Saint Kitts and Nevis, Jamaica, Greenpeace, the Worldwide Fund for Nature (WWF), the International Union for Conservation of Nature (IUCN) and the Deep Sea Conservation Coalition.

## **VI. Annual report of the Secretary-General**

14. The Assembly considered the annual report of the Secretary-General (ISBA/20/A/2) at its 146th, 147th and 148th meetings, on 23 and 24 July 2014. At the 146th meeting, the Secretary-General introduced his report to the Assembly, as required under article 166, paragraph 4, of the United Nations Convention on the Law of the Sea. The Secretary-General reviewed the Authority's work since the nineteenth session and outlined the progress that had been made in the implementation of its work programme for the period 2012-2014.

15. The Secretary-General's report provided an account of the Authority's work over the previous 12 months, including the status of membership of the Authority, the permanent missions to the Authority and the relationship between the Authority and the host country. The Secretary-General also highlighted the current status of accession to the Protocol on Privileges and Immunity of the Authority and urged members who had yet to accede to consider joining the Protocol. On administrative matters, the Secretary-General informed parties on vacant posts that had been filled during the reporting period and the Authority's participation in the United Nations common system. He reminded parties of the outstanding arrears amounting to \$283,731 from 43 members and gave an account of the status and contributions to the Voluntary Trust Fund and the Endowment Fund for Marine Scientific Research. The Secretary-General also briefed the members on the status of the Satya Nandan Library, publications and website of the Authority.

16. On substantive matters, the Secretary-General gave a report on the development of the regulatory regime in the Area, the status of contracts and the relationship between the Authority and other relevant international organizations. He highlighted the launching of the stakeholder survey and the work currently under way in establishing an online database of national laws and urged more countries to submit information about their national laws to the Authority. An account was also made on the Authority's dealings with the Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction. The Secretary-General also briefed members on the capacity-building initiatives and training and outreach programmes of the Authority. He concluded by highlighting article 154 of the

Convention, which calls for the work of the Authority to be reviewed every five years, and requested the Assembly for terms of reference for such a review.

17. Following the introduction by the Secretary-General, members presented group and national statements in response to the Secretary-General's report. They thanked the Secretary-General for his report and for the successful commemorative event celebrating the twentieth anniversary of the establishment of the Authority and applauded the good work carried out during the nineteenth session of the Authority. Some delegations welcomed the work currently under way on the formulation of the regulatory regime for exploitation and underscored the Authority's duty of care for ocean and seabed environmental integrity. A number of delegations welcomed the launching of the stakeholder survey and encouraged further future engagements with stakeholders. A few delegations expressed gratitude for the contributions that had been made to the Authority's endowment and trust funds. Others noted that the Authority was entering into a new phase of its existence, with its particular challenges, and called for the strengthening of the secretariat to meet the demands of the increased workload. A number of delegations applauded the Secretary-General's initiative for data standardization and noted that work on such standardization of taxonomy would commence with nodules and later address sulphides and crust.

18. At its 147th meeting, the Assembly continued its debate on the Secretary-General's report and heard an address from the Minister for Foreign Affairs and Trade of Jamaica. The Minister reiterated the host country's unwavering support for the Authority. He observed that it was fitting that the twentieth anniversary of the establishment of the Authority coincided with the celebration of the International Year of Small Island Developing States and with the third International Conference on Small Island Developing States, to be held in Samoa in September 2014, and called for the fostering of genuine and durable partnerships. The Minister applauded the holding of sensitization seminars and workshops as a tool for outreach and noted the call for the holding of such workshops in landlocked States. He also commended the Secretary-General for the conceptualization of the establishment of a museum and expressed Jamaica's support for that initiative and looked forward to advancing the issue further. The delegation of Japan presented a ferromanganese crust sample gift to the Secretary-General and announced a donation of \$21,000 to the Voluntary Trust Fund. Mexico, on behalf of the Group of Latin American and Caribbean States, called upon permanent missions to play a more active role in the work of the Authority.

19. Statements were also made under this item by the delegations of Argentina, Bangladesh, Brazil, Canada (on behalf of Canada, Australia and New Zealand), Cameroon, Chile, China, the Cook Islands, Cuba, Fiji, France, Germany, Italy, Japan, Kenya, Kiribati, Mexico, New Zealand, Nigeria (on behalf of the African Group), Norway, Myanmar, Mozambique, Singapore, South Africa, Spain, Trinidad and Tobago, Tonga, Uganda and the United Kingdom of Great Britain and Northern Ireland. Statements were also made by the observer delegation of the secretariat of the Convention on Biological Diversity, the International Cable Protection Committee, IUCN, Greenpeace and the Deep Sea Conservation Coalition. Members expressed their general satisfaction with the detailed report and indicated their support for the work that had been undertaken during the reporting period by the Authority as part of its programme of work for the period 2014-2015.

## VII. Adoption of the budget and scale of assessments

20. At its 149th meeting, on 24 July 2014, the Assembly considered the report of the Finance Committee ([ISBA/20/A/5-ISBA/20/C/19](#)), the proposed budget for the Authority for the financial period 2015-2016 ([ISBA/20/A/3-ISBA/20/C/10](#)) and the scale of assessments for 2015 and 2016. On the basis of the recommendations of the Council ([ISBA/20/C/21](#)), the Assembly adopted the decisions contained in document [ISBA/20/A/12](#).

## VIII. Approval of revised regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides

21. At the same meeting, the Assembly considered and approved the revised regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area and the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, as provisionally adopted by the Council at its 198th meeting, on 18 July 2014 (see [ISBA/20/C/22](#) and [ISBA/20/C/23](#), respectively). The decision of the Assembly is contained in documents [ISBA/20/A/9](#) and [ISBA/20/A/10](#).

## IX. Appointment and report of the Credentials Committee

22. At its 146th meeting, on 23 July 2014, the Assembly appointed a Credentials Committee consisting of the following nine members: Belgium, Indonesia, Kenya, Myanmar, Panama, South Africa, Russian Federation, Trinidad and Tobago and United Kingdom of Great Britain and Northern Ireland.

23. The Credentials Committee held one meeting, on 23 July 2014, during which it elected Godelieve Van den Bergh (Belgium) as its Chair for the twentieth session. The Committee examined the credentials of the representatives participating in the current session of the Assembly. The Committee had before it a memorandum by the secretariat dated 23 July 2014 on the status of those credentials.

24. At its 149th meeting, on 24 July 2014, the Assembly adopted the report of the Committee. The decision of the Assembly relating to credentials is contained in document [ISBA/20/A/7](#).

## X. Election of the Council

25. At its 149th meeting, on 24 July 2014, the Assembly elected the following members of the Council for a four-year period beginning on 1 January 2015, subject to the understandings reached in the regional and interest groups:

### Group A

Italy<sup>1</sup>  
Russian Federation

<sup>1</sup> Italy would relinquish its seat in Group A in favour of the United States of America if the United States became a member of the Authority; this does not prejudice the position of any country with respect to any intervening election to the Council.

**Group B**

France  
Germany<sup>2</sup>  
Republic of Korea

**Group C**

Australia<sup>3</sup>  
Chile<sup>4</sup>

**Group D**

Fiji  
Jamaica  
Lesotho

**Group E**

Cameroon  
Ghana  
Indonesia<sup>5</sup>  
Mexico  
Nigeria  
Singapore  
Tonga

26. The decision of the Assembly is contained in document [ISBA/20/A/8](#).

## **XI. Dates of the next session of the Assembly**

27. The next session of the Assembly will be held from 6 to 25 July 2015. It will be the turn of the Group of Western European and Other States to nominate a candidate for the Presidency of the Assembly in 2015.

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<sup>2</sup> Germany is re-elected for a period of four years (2015-2018), on the understanding that Belgium will occupy the seat in Group B for the year 2016.

<sup>3</sup> Australia is re-elected for a period of four years (2015-2018), on the understanding that in 2017 it will relinquish its seat in Group C to Indonesia. Australia will be a member of Group E in 2017.

<sup>4</sup> Chile is re-elected for a period of four years (2015-2018), on the understanding that in 2018 it will relinquish its seat in Group C to Indonesia. Chile will be a member of Group E in 2018.

<sup>5</sup> Indonesia is re-elected to the Council for a period of four years (2015-2018) on the understanding that in 2017 it will relinquish its seat in Group E to Australia and will occupy the seat in Group C relinquished by Australia, and in 2018 Indonesia will relinquish its seat in Group E to Chile and will occupy the seat in Group C relinquished by Chile.





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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Decision of the Assembly relating to the budget of the International Seabed Authority for the financial period 2015-2016**

*The Assembly of the International Seabed Authority,*

1. *Approves* the budget for the financial period 2015-2016 in the amount of \$15,743,143;
2. *Also approves* the adoption by the Authority of the International Public Sector Accounting Standards in the financial period 2015-2016;
3. *Authorizes* the Secretary-General to establish the scale of assessments for 2015 and 2016 on the basis of the scale used for the regular budget of the expenses of the United Nations for 2013 and 2014, respectively, taking into account that the ceiling assessment rate will be 22 per cent and the floor rate 0.01 per cent;
4. *Also authorizes* the Secretary-General, for each year of the financial period 2015-2016, to transfer between appropriation sections up to 20 per cent of the amount in each section;
5. *Strongly encourages* the contractors that are still considering their position to accept the annual overhead charge related to the administration and supervision of their contracts to ensure equitable burden-sharing among all contractors;
6. *Urges* members of the Finance Committee to fulfil their obligations and to make every effort to attend its meetings, and requests the Secretary-General to schedule such meetings in as efficient a manner as possible;
7. *Requests* the Secretary-General, in future budget proposals, to provide a complete narrative in support of the proposed budget requests, as well as a breakdown of projected costs in respect of large items of expenditure or those in which a significant variance in relation to the previous budget is proposed;
8. *Also requests* the Secretary-General to ensure that the budget is in line with the priorities set by the Council and the Assembly, in particular with the need



to develop the exploitation code, and to make available all relevant documents used to prepare the reports of the Finance Committee;

9. *Urges* the members of the Authority to pay their assessed contributions to the budget on time and in full;

10. *Appeals* to the members of the Authority to pay outstanding contributions to the budget of the Authority from previous years as soon as possible, and requests the Secretary-General, at his discretion, to continue his efforts to recover those amounts;

11. *Strongly encourages* members of the Authority to make voluntary contributions to the Endowment Fund and Voluntary Trust Fund of the Authority;

12. *Expresses appreciation* to those members of the Authority who have made voluntary contributions to the Voluntary Trust Fund and Endowment Fund.

*149th meeting  
24 July 2014*

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## COUNCIL

ISBA/20/C/4	Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for cobalt-rich ferromanganese crusts by the Ministry of Natural Resources and Environment of the Russian Federation
ISBA/20/C/5	Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by UK Seabed Resources Ltd.
ISBA/20/C/6	Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application by the Government of India for the approval of a plan of work for exploration for polymetallic sulphides
ISBA/20/C/7	Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Ocean Mineral Singapore Pte Ltd
ISBA/20/C/11 and Add. 1*	Laws, regulations and administrative measures adopted by sponsoring States and other members of the International Seabed Authority with respect to the activities in the Area. Report of the Secretary-General
ISBA/20/C/11 Corr.1	Laws, regulations and administrative measures adopted by sponsoring States and other members of the International Seabed Authority with respect to the activities in the Area
ISBA/20/C/12 and Add. 1	Status of prospecting and of contracts for exploration for polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts in the Area
ISBA/20/C/16	Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic sulphides by the Federal Institute for Geosciences and Natural Resources on behalf of the Federal Republic of Germany
ISA/20/C/17	Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for cobalt-rich ferromanganese crusts by Companhia de Pesquisa de Recursos Minerais

ISBA/20/C/18	Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by the Cook Islands Investment Corporation
ISBA/20/C/20	Summary report of the Chair of the Legal and Technical Commission on the work of the Commission during the twentieth session of the International Seabed Authority
ISBA/20/C/22	Decision of the Council of the International Seabed Authority relating to amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area
ISBA/20/C/23	Decision of the Council of the International Seabed Authority relating to amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area
ISBA/20/C/24	Decision of the Council relating to an application for the approval of a plan of work for exploration for cobalt-rich ferromanganese crusts by the Ministry of Natural Resources and Environment of the Russian Federation
ISBA/20/C/25	Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic nodules submitted by UK Seabed Resources Ltd.
ISBA/20/C/26	Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic sulphides by the Government of India
ISBA/20/C/27	Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic nodules submitted by Ocean Mineral Singapore Pte Ltd.
ISBA/20/C/28	Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic sulphides by the Federal Institute for Geosciences and Natural Resources
ISBA/20/C/29	Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic nodules submitted by the Cook Islands Investment Corporation
ISBA/20/C/30	Decision of the Council relating to an application for the approval of a plan of work for exploration for cobalt-rich ferromanganese crusts by Companhia de Pesquisa de Recursos Minerais
ISBA/20/C/31	Decision of the Council of the International Seabed Authority relating to the summary report of the Chair of the Legal and Technical Commission

ISBA/20/C/32	Summary report of the President of the Council of the International Seabed Authority on the work of the Council during the twentieth session
Consolidated Index to the Selected Decisions and Documents of the International Seabed Authority	



## Council

Distr.: General  
25 February 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for cobalt-rich ferromanganese crusts by the Ministry of Natural Resources and Environment of the Russian Federation**

#### **I. Introduction**

1. On 6 February 2013, the Secretary-General of the International Seabed Authority received an application from the Government of the Russian Federation for approval of a plan of work for exploration for cobalt-rich ferromanganese crusts in the Area. Amendments to the application were received on 29 April 2013. The application was submitted pursuant to the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area (ISBA/18/A/11, annex) (“the Regulations”). The application covers a total surface area of 6,000 square kilometres, located in the Western Pacific Ocean.

2. In accordance with regulation 22 (c) of the Regulations, by a note verbale dated 7 March 2013, the Secretary-General notified the members of the International Seabed Authority of the receipt of the application and circulated general information concerning the application. The Secretary-General also placed consideration of the application on the agenda of the meeting of the Legal and Technical Commission held from 8 to 15 July 2013.





## **II. Methodology for consideration of the application by the Legal and Technical Commission**

### **A. General methodology applied by the Commission in consideration of the application**

3. In its consideration of the application, the Commission noted that, in keeping with the scheme established in article 6 of annex III to the United Nations Convention on the Law of the Sea, it was first required to make an objective determination as to whether the applicant had fulfilled the requirements contained in the Regulations, particularly with respect to the form of applications; whether the applicant had provided the necessary undertakings and assurances specified in regulation 15; and whether it had the necessary financial and technical capability to carry out the proposed plan of work for exploration. The Commission was then required to determine, in accordance with regulation 23, paragraph 4, whether the proposed plan of work would provide for effective protection of human health and safety and effective protection and preservation of the marine environment and would ensure that installations were not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity. Regulation 23, paragraph 5, provides that, if the Commission makes the determinations specified in paragraph 3 of regulation 23 and determines that the proposed plan of work for exploration meets the requirements of paragraph 4, the Commission shall recommend approval of the plan of work for exploration to the Council.

4. In considering the proposed plan of work for exploration for cobalt-rich ferromanganese crusts, the Commission took into account the principles, policies and objectives relating to activities in the Area as provided for in Part XI and annex III of the Convention and in the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea.

### **B. Consideration of the application**

5. The Commission considered the application in closed meetings on 8, 10, 12 and 15 July 2013, and on 4 February 2014.

6. Prior to commencing a detailed examination of the application, the Commission invited the applicant's designated representative, Orel Alexey Vladimirovitch, Director of the Department of the State Policy and Regulations for Subsurface Management of the Ministry of Natural Resources and Environment of the Russian Federation, accompanied by Andrey Gagelgants, Arsen Daduani, Sergey Dyatchenko, Mikhail Melnikov and Irina Ponomareva, to make a presentation of the application. Members of the Commission then asked questions to clarify certain aspects of the application before convening in closed session to examine the application in detail. Following its initial consideration, the Commission decided to request its Chair to transmit a list of questions to the applicant in writing. The written responses provided by the applicant, which supplemented the equivalent parts of the originally submitted application original, were taken into account by the Commission in its subsequent consideration.

7. On 12 July 2013, the Commission set up a technical working group to assess the potential commercial value of the data in order to draft recommendations on the area to be allocated to the contractor and on the area to become a reserved area. After deliberations, the Commission decided to defer consideration of the application, in particular on the issue of selection of the area to be reserved for the Authority and the area to be allocated to the contractor.

### **III. Summary of basic information regarding the application**

#### **A. Identification of the applicant**

8. The name and address of the applicant are as follows:

(a) Name: Ministry of Natural Resources and Environment of the Russian Federation;

(b) Street address: 4/6, Bolshaya Gruzinskaya St., Moscow, 123995 Russian Federation;

(c) Postal address: as above;

(d) Telephone number: +7 (499) 2544800, +7 (499) 2548155, +7 (499) 2547500;

(e) Facsimile number: +7 (499) 2544310, +7 (499) 2546610, +7 (499) 2543361;

(f) E-mail address: admin@mnr.gov.ru; gagel@mnr.gov.ru; arcsor@mnr.gov.ru.

9. The applicant's designated representative is:

(a) Name: Denis G. Khramov, Deputy Minister of Natural Resources and Environment of the Russian Federation;

(b) Street and postal addresses: as above;

(c) Telephone number: +7 (499) 2545647;

(d) Facsimile number: +7 (499) 2544310, +7 (499) 2541675;

(e) E-mail address: dkhramov@mnr.gov.ru.

10. The applicant is a State party to the Convention.

11. The date of deposit by the Russian Federation of the instrument of ratification of the United Nations Convention on the Law of the Sea is 12 March 1997; the date of accession to the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 is 12 March 1997.

#### **B. Area of application**

12. The area under application is located within the Magellan Mountains in the Pacific Ocean. It consists of two groups of 150 blocks each, which the applicant named area 1 and area 2. The blocks have a size of 20 km<sup>2</sup> each and are located over eight seamounts. The blocks are grouped into clusters, each containing 5 contiguous

blocks. Each of the two groups of 150 blocks has a size of 3,000 km<sup>2</sup> and the total size of the application area is 6,000 km<sup>2</sup>. Each of the two groups is located entirely within a geographical area measuring not more than 550 x 550 kilometres. The coordinates and general location of the area under application are shown in the annex to the present document. This is in compliance with regulation 12.

### **C. Other information**

13. The applicant has previously been awarded a contract with the Authority:

(a) The Ministry of Natural Resources and Environment of the Russian Federation and the Authority signed a contract for exploration for polymetallic sulphides on 29 October 2012;

(b) The date of expiry of the contract is 28 October 2027.

14. The application included a written undertaking dated 7 December 2012 and signed by the designated representative of the applicant in accordance with regulation 15.

15. The applicant has elected to contribute a reserved area in accordance with regulation 17.

16. The applicant has paid a fee of \$500,000 in accordance with regulation 21.

## **IV. Examination of information and technical data submitted by the applicant**

17. The following technical documents and information were provided:

(a) Information relating to the area under application:

(i) Charts of the location and boundaries of the blocks, indicating the two parts of the area under application;

(ii) A list of the geographical coordinates of the blocks under application;

(iii) Information to enable the Council to designate a reserved area based on the estimated commercial value of the two parts of the area under application, including data available to the applicant with respect to both parts of the area under application, including:

a. Charts indicating the thickness of the crusts in the sampling locations and the locations where the parameters of cobalt crusts were measured for each of the seamounts;

b. Results of the assessment of the predicted resources for each of the two areas;

c. Summary map of tonnage and grades of cobalt-rich ferromanganese crusts for all guyots in the application area;

d. Catalogue of coordinates and depths of the dredging and drilling locations and data about the thickness of the crusts and content of their main commercial components;

- e. Catalogue of coordinates of photo and video transects;
  - f. Description of the techniques used by the applicant;
  - g. Information concerning environmental parameters;
- (b) Certificate of sponsorship;
- (c) Information to enable the Council to determine whether the applicant is financially capable of carrying out the proposed plan of work for exploration;
- (d) Information to enable the Council to determine whether the applicant is technically capable of carrying out the proposed plan of work for exploration;
- (e) Plan of work for exploration;
- (f) Training programme;
- (g) Written undertakings by the applicant;
- (h) A document of 30 November 2012 certifying the undersigned to be authorized to act on behalf of the applicant.

## **V. Consideration of financial and technical qualifications of the applicant**

### **A. Financial capacity**

18. The applicant declared its financial capacity to carry out the proposed plan of work for exploration and fulfilled its financial obligations to the Authority. In evaluating the financial capacity of the applicant, the Commission noted that the applicant provided a financial statement, dated 7 December 2012 and signed by the designated representative, certifying the financial capability of the applicant to implement the proposed plan of work.

### **B. Technical capacity**

19. In evaluating the technical capacity of the applicant, the Commission noted that the applicant can draw upon extensive experience in marine scientific investigations for cobalt-rich ferromanganese crusts in the Area for over 30 years. During this time, the applicant had been organizing regular investigations to study ore potential of the Western Pacific guyots, some of which were included in the area under application. Those had resulted in the collection of information about the geological structure and prospects of the guyots in the Magellan area and in the development and implementation of special techniques and equipments for surveys and samplings.

20. The applicant explained that the exploration activities would take place in three five-year phases of the plan of work. The objective of the first phase was to define priority areas in order to conduct further detailed exploration with a view to demarcating potential cobalt-rich ferromanganese crusts deposits. The second phase would aim at allocating the deposits and crusts reserves which were viable for mining; upon its completion, the applicant planned to conduct a feasibility study to determine the commencement of mining. For the last phase, the objective was to

select sites for potential exploitation, taking into account a number of parameters, such as the seabed gradient, ruggedness, physical obstacles, and physical and mechanical properties of the substrate. The applicant also planned to conduct a feasibility study at the end of the last phase.

21. The applicant also provided information related to the proposed environmental and oceanographic baseline studies in three stages (before, during, and after the test pilot mining) and a preliminary environmental impact assessment of the exploration activities. The applicant stated that the proposed exploration activities would not result in any environmental harm beyond routine influences caused by marine scientific research. The pilot mining anticipated for the later stages of the exploration work was expected to result in a relatively significant environmental impact. However, its intensity was currently unpredictable and would depend on the performance of future mining systems and on the scope of the pilot mining. During the pilot mining, the applicant indicated that it would establish preservation reference zones, pursuant to the Regulations. After the pilot mining, studies would be carried out to evaluate the type and level of the impact on the marine environment, including the identification of the area of substantial impact.

22. The applicant provided information related to its financial and technical ability to respond to any incidents arising out of the implementation of the plan of work which causes damage to the marine environment. The applicant mentioned a specially created reserve fund to cover expenses for the elimination of any harmful effects of such incidences. The applicant also indicated the availability of specialized equipment for the prevention and, if necessary elimination, of harm to the marine environment. Furthermore, the applicant committed to carrying out periodic drills to test measures in order to secure safe operation of vessels and the protection of the marine environment. In addition, the applicant indicated that the use of exploration hardware affecting the seabed benthic communities would be minimized and compliance with environmental safety of the support vessel continuously monitored.

## **VI. Consideration of data and information submitted for the designation of a reserved area and determination of equal estimated commercial value**

23. The applicant indicated the coordinates dividing the area under application into two parts of equal estimated commercial value. The Council, on the recommendation of the Commission, shall designate one of these parts as the area reserved for the Authority. The other part will become the applicant's exploration area. The calculation of the estimated commercial value was done by the applicant in several steps.

### **A. Methodology used by the applicant for the calculation of the estimated commercial value**

24. The applicant provided information on the mineral content of the samples, including cobalt, nickel, and manganese, as well as copper, tellurium, titanium, platinum other metallic and rare earth elements.

## **B. Summary and conclusions relating to the determination of equal estimated commercial value**

25. The data in the two areas (area 1 and area 2) has been analysed and the following observations are made with regard to the tonnage, element composition and grade of the metal ore, and the seafloor morphology:

(a) The available bathymetric data indicates that most of the upper slopes of the seamounts in areas 1 and 2 are similar. However the average water depth of the collected samples in area 1 (2,062.5 metres) is shallower than in area 2 (2,314.16 metres);

(b) Area 1 is a rectangle of 507 x 350 km, comprising exploration 150 blocks of a total of 3,000 km<sup>2</sup> distributed on four seamounts, and area 2 is a rectangle of 440 x 206 km, comprising exploration 150 blocks of a total of 3,000 km<sup>2</sup> distributed on four seamounts;

(c) Analyses of the content of manganese, nickel, cobalt, copper and titanium have been performed on all available samples, while a number of the samples (from both areas) have also been analysed for molybdenum, tellurium, titanium, platinum and rare earth elements, providing representative averages for the two areas;

(d) The applicant has presented estimates of the distribution of the thickness of the crust in the two areas based on the measurements from 11 drill cores in area 1 and 12 drill cores in area 2. Based on these thickness estimates and the area as measured for the proposed exploration area, the applicant has calculated the total tonnage of ore (crust) within the two areas. The calculations, based on average grade metal and coefficient utility (percentages) indicate that areas 1 and 2 are similar.

26. In summary, the data and calculations show that the commercial value of the two areas is practically equal. However, the average water depth of the collected samples in area 1 is shallower than in area 2. On that basis the Commission decided to recommend to the Council that area 1 be designated as the area reserved for the Authority.

## **VII. Consideration of data and information submitted for approval of the plan of work for exploration**

27. In accordance with regulation 20 of the Regulations, the application includes the following information for approval of the plan of work for exploration:

(a) A general description and a schedule of the proposed exploration programme, including the programme of activities for the immediate five-year period;

(b) A description of the programme for oceanographic and environmental baseline studies in accordance with the Regulations and any environmental rules, regulations and procedures established by the Authority that would enable an assessment of the potential environmental impact of the proposed exploration activities, including, but not restricted to, the impact on biodiversity, taking into account any recommendations issued by the Legal and Technical Commission;

(c) A preliminary assessment of the possible impact of the proposed exploration activities on the marine environment;

(d) A description of proposed measures for the prevention, reduction and control of pollution and other hazards, as well as possible impacts, to the marine environment;

(e) Data necessary for the Council to make the determination it is required to make in accordance with regulation 13, paragraph 1, of the Regulations;

(f) A schedule of anticipated yearly expenditures in respect of the programme of activities for the immediate five-year period.

## **VIII. Training programme**

28. The applicant stated that, in accordance with regulation 29 and section 8 of annex IV to the Regulations, it would draw up a training programme in collaboration with the Authority, which will be an integral part of the contract. The applicant also provided some information on the kind of opportunities for training, the number of trainees, the dates, schedules and the disciplines for the training programme. The Commission highlighted that in developing the training programme, the applicant and the Secretary-General should ensure that the training programme be in line with the Recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration, as developed by the Commission during the nineteenth session ([ISBA/19/LTC/14](#)).

## **IX. Conclusion and recommendations**

29. Having examined the particulars submitted by the applicant, which are summarized in sections III to VIII above, the Commission is satisfied that the application has been duly submitted in accordance with the Regulations and that the applicant:

(a) Has complied with the provisions of the Regulations;

(b) Has given the undertakings and assurances specified in regulation 15;

(c) Possesses the financial and technical capability to carry out the proposed plan of work for exploration.

30. The Commission states that none of the conditions in regulation 23, paragraph 6, of the Regulations apply.

31. The Commission is satisfied that the proposed plan of work for exploration will:

(a) Provide for effective protection of human health and safety;

(b) Provide for effective protection and preservation of the marine environment;



(c) Ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity.

32. Accordingly, pursuant to regulation 23, paragraph 5, of the Regulations, the Commission recommends to the Council approval of the plan of work for exploration submitted by the Ministry of Natural Resources and Environment of the Russian Federation.

33. The Commission also recommends to the Council that it designate area 1 within the application for approval of the plan of work for exploration as the area reserved for the Authority and that it allocate area 2 to the applicant as its exploration area.

## Annex I

## List of coordinates

List of geographical coordinates of corners of blocks under application

Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
<b>Area 1</b>								
<b>Fedorov Guyot</b>								
ER98	155° 37' 30,0" E	14° 26' 20,0" N	155° 37' 30,0" E	14° 28' 40,0" N	155° 40' 00,0" E	14° 28' 40,0" N	155° 40' 00,0" E	14° 26' 20,0" N
ES99	155° 40' 00,0" E	14° 24' 00,0" N	155° 40' 00,0" E	14° 26' 20,0" N	155° 42' 30,0" E	14° 26' 20,0" N	155° 42' 30,0" E	14° 24' 00,0" N
ET99	155° 42' 30,0" E	14° 24' 00,0" N	155° 42' 30,0" E	14° 26' 20,0" N	155° 45' 00,0" E	14° 26' 20,0" N	155° 45' 00,0" E	14° 24' 00,0" N
EU99	155° 45' 00,0" E	14° 24' 00,0" N	155° 45' 00,0" E	14° 26' 20,0" N	155° 47' 30,0" E	14° 26' 20,0" N	155° 47' 30,0" E	14° 24' 00,0" N
EV99	155° 47' 30,0" E	14° 24' 00,0" N	155° 47' 30,0" E	14° 26' 20,0" N	155° 50' 00,0" E	14° 26' 20,0" N	155° 50' 00,0" E	14° 24' 00,0" N
EW99	155° 50' 00,0" E	14° 24' 00,0" N	155° 50' 00,0" E	14° 26' 20,0" N	155° 52' 30,0" E	14° 26' 20,0" N	155° 52' 30,0" E	14° 24' 00,0" N
EX99	155° 52' 30,0" E	14° 24' 00,0" N	155° 52' 30,0" E	14° 26' 20,0" N	155° 55' 00,0" E	14° 26' 20,0" N	155° 55' 00,0" E	14° 24' 00,0" N
EY100	155° 55' 00,0" E	14° 21' 40,0" N	155° 55' 00,0" E	14° 24' 00,0" N	155° 57' 30,0" E	14° 24' 00,0" N	155° 57' 30,0" E	14° 21' 40,0" N
EZ101	155° 57' 30,0" E	14° 19' 20,0" N	155° 57' 30,0" E	14° 21' 40,0" N	156° 00' 00,0" E	14° 21' 40,0" N	156° 00' 00,0" E	14° 19' 20,0" N
FA101	156° 00' 00,0" E	14° 19' 20,0" N	156° 00' 00,0" E	14° 21' 40,0" N	156° 02' 30,0" E	14° 21' 40,0" N	156° 02' 30,0" E	14° 19' 20,0" N
EV100	155° 47' 30,0" E	14° 21' 40,0" N	155° 47' 30,0" E	14° 24' 00,0" N	155° 50' 00,0" E	14° 24' 00,0" N	155° 50' 00,0" E	14° 21' 40,0" N
EV101	155° 47' 30,0" E	14° 19' 20,0" N	155° 47' 30,0" E	14° 21' 40,0" N	155° 50' 00,0" E	14° 21' 40,0" N	155° 50' 00,0" E	14° 19' 20,0" N
EV102	155° 47' 30,0" E	14° 17' 00,0" N	155° 47' 30,0" E	14° 19' 20,0" N	155° 50' 00,0" E	14° 19' 20,0" N	155° 50' 00,0" E	14° 17' 00,0" N
EW103	155° 50' 00,0" E	14° 14' 40,0" N	155° 50' 00,0" E	14° 17' 00,0" N	155° 52' 30,0" E	14° 17' 00,0" N	155° 52' 30,0" E	14° 14' 40,0" N
EW104	155° 50' 00,0" E	14° 12' 20,0" N	155° 50' 00,0" E	14° 14' 40,0" N	155° 52' 30,0" E	14° 14' 40,0" N	155° 52' 30,0" E	14° 12' 20,0" N
EZ102	155° 57' 30,0" E	14° 17' 00,0" N	155° 57' 30,0" E	14° 19' 20,0" N	156° 00' 00,0" E	14° 19' 20,0" N	156° 00' 00,0" E	14° 17' 00,0" N
FA102	156° 00' 00,0" E	14° 17' 00,0" N	156° 00' 00,0" E	14° 19' 20,0" N	156° 02' 30,0" E	14° 19' 20,0" N	156° 02' 30,0" E	14° 17' 00,0" N
EX103	155° 52' 30,0" E	14° 14' 40,0" N	155° 52' 30,0" E	14° 17' 00,0" N	155° 55' 00,0" E	14° 17' 00,0" N	155° 55' 00,0" E	14° 14' 40,0" N

EY103	155° 55' 00,0" E	14° 14' 40,0" N	155° 55' 00,0" E	14° 17' 00,0" N	155° 57' 30,0" E	14° 17' 00,0" N	155° 57' 30,0" E	14° 14' 40,0" N
EZ103	155° 57' 30,0" E	14° 14' 40,0" N	155° 57' 30,0" E	14° 17' 00,0" N	156° 00' 00,0" E	14° 17' 00,0" N	156° 00' 00,0" E	14° 14' 40,0" N
Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
FB102	156° 02' 30,0" E	14° 17' 00,0" N	156° 02' 30,0" E	14° 19' 20,0" N	156° 05' 00,0" E	14° 19' 20,0" N	156° 05' 00,0" E	14° 17' 00,0" N
FC102	156° 05' 00,0" E	14° 17' 00,0" N	156° 05' 00,0" E	14° 19' 20,0" N	156° 07' 30,0" E	14° 19' 20,0" N	156° 07' 30,0" E	14° 17' 00,0" N
FC103	156° 05' 00,0" E	14° 14' 40,0" N	156° 05' 00,0" E	14° 17' 00,0" N	156° 07' 30,0" E	14° 17' 00,0" N	156° 07' 30,0" E	14° 14' 40,0" N
FD103	156° 07' 30,0" E	14° 14' 40,0" N	156° 07' 30,0" E	14° 17' 00,0" N	156° 10' 00,0" E	14° 17' 00,0" N	156° 10' 00,0" E	14° 14' 40,0" N
FE104	156° 10' 00,0" E	14° 12' 20,0" N	156° 10' 00,0" E	14° 14' 40,0" N	156° 12' 30,0" E	14° 14' 40,0" N	156° 12' 30,0" E	14° 12' 20,0" N
EY104	155° 55' 00,0" E	14° 12' 20,0" N	155° 55' 00,0" E	14° 14' 40,0" N	155° 57' 30,0" E	14° 14' 40,0" N	155° 57' 30,0" E	14° 12' 20,0" N
EZ104	155° 57' 30,0" E	14° 12' 20,0" N	155° 57' 30,0" E	14° 14' 40,0" N	156° 00' 00,0" E	14° 14' 40,0" N	156° 00' 00,0" E	14° 12' 20,0" N
EZ105	155° 57' 30,0" E	14° 10' 00,0" N	155° 57' 30,0" E	14° 12' 20,0" N	156° 00' 00,0" E	14° 12' 20,0" N	156° 00' 00,0" E	14° 10' 00,0" N
FA105	156° 00' 00,0" E	14° 10' 00,0" N	156° 00' 00,0" E	14° 12' 20,0" N	156° 02' 30,0" E	14° 12' 20,0" N	156° 02' 30,0" E	14° 10' 00,0" N
EZ106	155° 57' 30,0" E	14° 07' 40,0" N	155° 57' 30,0" E	14° 10' 00,0" N	156° 00' 00,0" E	14° 10' 00,0" N	156° 00' 00,0" E	14° 07' 40,0" N
EZ107	155° 57' 30,0" E	14° 05' 20,0" N	155° 57' 30,0" E	14° 07' 40,0" N	156° 00' 00,0" E	14° 07' 40,0" N	156° 00' 00,0" E	14° 05' 20,0" N
EZ108	155° 57' 30,0" E	14° 03' 00,0" N	155° 57' 30,0" E	14° 05' 20,0" N	156° 00' 00,0" E	14° 05' 20,0" N	156° 00' 00,0" E	14° 03' 00,0" N
FA107	156° 00' 00,0" E	14° 05' 20,0" N	156° 00' 00,0" E	14° 07' 40,0" N	156° 02' 30,0" E	14° 07' 40,0" N	156° 02' 30,0" E	14° 05' 20,0" N
FA108	156° 00' 00,0" E	14° 03' 00,0" N	156° 00' 00,0" E	14° 05' 20,0" N	156° 02' 30,0" E	14° 05' 20,0" N	156° 02' 30,0" E	14° 03' 00,0" N
FB109	156° 02' 30,0" E	14° 00' 40,0" N	156° 02' 30,0" E	14° 03' 00,0" N	156° 05' 00,0" E	14° 03' 00,0" N	156° 05' 00,0" E	14° 00' 40,0" N
EY108	155° 55' 00,0" E	14° 03' 00,0" N	155° 55' 00,0" E	14° 05' 20,0" N	155° 57' 30,0" E	14° 05' 20,0" N	155° 57' 30,0" E	14° 03' 00,0" N
EY109	155° 55' 00,0" E	14° 00' 40,0" N	155° 55' 00,0" E	14° 03' 00,0" N	155° 57' 30,0" E	14° 03' 00,0" N	155° 57' 30,0" E	14° 00' 40,0" N
EZ109	155° 57' 30,0" E	14° 00' 40,0" N	155° 57' 30,0" E	14° 03' 00,0" N	156° 00' 00,0" E	14° 03' 00,0" N	156° 00' 00,0" E	14° 00' 40,0" N
EZ110	155° 57' 30,0" E	13° 58' 20,0" N	155° 57' 30,0" E	14° 00' 40,0" N	156° 00' 00,0" E	14° 00' 40,0" N	156° 00' 00,0" E	13° 58' 20,0" N
FA110	156° 00' 00,0" E	13° 58' 20,0" N	156° 00' 00,0" E	14° 00' 40,0" N	156° 02' 30,0" E	14° 00' 40,0" N	156° 02' 30,0" E	13° 58' 20,0" N
FB110	156° 02' 30,0" E	13° 58' 20,0" N	156° 02' 30,0" E	14° 00' 40,0" N	156° 05' 00,0" E	14° 00' 40,0" N	156° 05' 00,0" E	13° 58' 20,0" N
FC110	156° 05' 00,0" E	13° 58' 20,0" N	156° 05' 00,0" E	14° 00' 40,0" N	156° 07' 30,0" E	14° 00' 40,0" N	156° 07' 30,0" E	13° 58' 20,0" N
FD111	156° 07' 30,0" E	13° 56' 00,0" N	156° 07' 30,0" E	13° 58' 20,0" N	156° 10' 00,0" E	13° 58' 20,0" N	156° 10' 00,0" E	13° 56' 00,0" N

FE111	156° 10' 00,0" E	13° 56' 00,0" N	156° 10' 00,0" E	13° 58' 20,0" N	156° 12' 30,0" E	13° 58' 20,0" N	156° 12' 30,0" E	13° 56' 00,0" N
FE112	156° 10' 00,0" E	13° 53' 40,0" N	156° 10' 00,0" E	13° 56' 00,0" N	156° 12' 30,0" E	13° 56' 00,0" N	156° 12' 30,0" E	13° 53' 40,0" N
Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
FT99	156° 47' 30,0" E	14° 24' 00,0" N	156° 47' 30,0" E	14° 26' 20,0" N	156° 50' 00,0" E	14° 26' 20,0" N	156° 50' 00,0" E	14° 24' 00,0" N
FR100	156° 42' 30,0" E	14° 21' 40,0" N	156° 42' 30,0" E	14° 24' 00,0" N	156° 45' 00,0" E	14° 24' 00,0" N	156° 45' 00,0" E	14° 21' 40,0" N
FS100	156° 45' 00,0" E	14° 21' 40,0" N	156° 45' 00,0" E	14° 24' 00,0" N	156° 47' 30,0" E	14° 24' 00,0" N	156° 47' 30,0" E	14° 21' 40,0" N
FT100	156° 47' 30,0" E	14° 21' 40,0" N	156° 47' 30,0" E	14° 24' 00,0" N	156° 50' 00,0" E	14° 24' 00,0" N	156° 50' 00,0" E	14° 21' 40,0" N
FR101	156° 42' 30,0" E	14° 19' 20,0" N	156° 42' 30,0" E	14° 21' 40,0" N	156° 45' 00,0" E	14° 21' 40,0" N	156° 45' 00,0" E	14° 19' 20,0" N
FP101	156° 37' 30,0" E	14° 19' 20,0" N	156° 37' 30,0" E	14° 21' 40,0" N	156° 40' 00,0" E	14° 21' 40,0" N	156° 40' 00,0" E	14° 19' 20,0" N
FQ101	156° 40' 00,0" E	14° 19' 20,0" N	156° 40' 00,0" E	14° 21' 40,0" N	156° 42' 30,0" E	14° 21' 40,0" N	156° 42' 30,0" E	14° 19' 20,0" N
FN102	156° 32' 30,0" E	14° 17' 00,0" N	156° 32' 30,0" E	14° 19' 20,0" N	156° 35' 00,0" E	14° 19' 20,0" N	156° 35' 00,0" E	14° 17' 00,0" N
FO102	156° 35' 00,0" E	14° 17' 00,0" N	156° 35' 00,0" E	14° 19' 20,0" N	156° 37' 30,0" E	14° 19' 20,0" N	156° 37' 30,0" E	14° 17' 00,0" N
FP102	156° 37' 30,0" E	14° 17' 00,0" N	156° 37' 30,0" E	14° 19' 20,0" N	156° 40' 00,0" E	14° 19' 20,0" N	156° 40' 00,0" E	14° 17' 00,0" N
FN103	156° 32' 30,0" E	14° 14' 40,0" N	156° 32' 30,0" E	14° 17' 00,0" N	156° 35' 00,0" E	14° 17' 00,0" N	156° 35' 00,0" E	14° 14' 40,0" N
FL104	156° 27' 30,0" E	14° 12' 20,0" N	156° 27' 30,0" E	14° 14' 40,0" N	156° 30' 00,0" E	14° 14' 40,0" N	156° 30' 00,0" E	14° 12' 20,0" N
FM104	156° 30' 00,0" E	14° 12' 20,0" N	156° 30' 00,0" E	14° 14' 40,0" N	156° 32' 30,0" E	14° 14' 40,0" N	156° 32' 30,0" E	14° 12' 20,0" N
FN104	156° 32' 30,0" E	14° 12' 20,0" N	156° 32' 30,0" E	14° 14' 40,0" N	156° 35' 00,0" E	14° 14' 40,0" N	156° 35' 00,0" E	14° 12' 20,0" N
FO104	156° 35' 00,0" E	14° 12' 20,0" N	156° 35' 00,0" E	14° 14' 40,0" N	156° 37' 30,0" E	14° 14' 40,0" N	156° 37' 30,0" E	14° 12' 20,0" N
FN105	156° 32' 30,0" E	14° 10' 00,0" N	156° 32' 30,0" E	14° 12' 20,0" N	156° 35' 00,0" E	14° 12' 20,0" N	156° 35' 00,0" E	14° 10' 00,0" N
FO105	156° 35' 00,0" E	14° 10' 00,0" N	156° 35' 00,0" E	14° 12' 20,0" N	156° 37' 30,0" E	14° 12' 20,0" N	156° 37' 30,0" E	14° 10' 00,0" N
FN106	156° 32' 30,0" E	14° 07' 40,0" N	156° 32' 30,0" E	14° 10' 00,0" N	156° 35' 00,0" E	14° 10' 00,0" N	156° 35' 00,0" E	14° 07' 40,0" N
FN107	156° 32' 30,0" E	14° 05' 20,0" N	156° 32' 30,0" E	14° 07' 40,0" N	156° 35' 00,0" E	14° 07' 40,0" N	156° 35' 00,0" E	14° 05' 20,0" N
FO107	156° 35' 00,0" E	14° 05' 20,0" N	156° 35' 00,0" E	14° 07' 40,0" N	156° 37' 30,0" E	14° 07' 40,0" N	156° 37' 30,0" E	14° 05' 20,0" N
FK105	156° 25' 00,0" E	14° 10' 00,0" N	156° 25' 00,0" E	14° 12' 20,0" N	156° 27' 30,0" E	14° 12' 20,0" N	156° 27' 30,0" E	14° 10' 00,0" N
FL105	156° 27' 30,0" E	14° 10' 00,0" N	156° 27' 30,0" E	14° 12' 20,0" N	156° 30' 00,0" E	14° 12' 20,0" N	156° 30' 00,0" E	14° 10' 00,0" N
FM105	156° 30' 00,0" E	14° 10' 00,0" N	156° 30' 00,0" E	14° 12' 20,0" N	156° 32' 30,0" E	14° 12' 20,0" N	156° 32' 30,0" E	14° 10' 00,0" N

FL106	156° 27' 30,0" E	14° 07' 40,0" N	156° 27' 30,0" E	14° 10' 00,0" N	156° 30' 00,0" E	14° 10' 00,0" N	156° 30' 00,0" E	14° 07' 40,0" N
FM106	156° 30' 00,0" E	14° 07' 40,0" N	156° 30' 00,0" E	14° 10' 00,0" N	156° 32' 30,0" E	14° 10' 00,0" N	156° 32' 30,0" E	14° 07' 40,0" N

Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
FG105	156° 15' 00,0" E	14° 10' 00,0" N	156° 15' 00,0" E	14° 12' 20,0" N	156° 17' 30,0" E	14° 12' 20,0" N	156° 17' 30,0" E	14° 10' 00,0" N
FH105	156° 17' 30,0" E	14° 10' 00,0" N	156° 17' 30,0" E	14° 12' 20,0" N	156° 20' 00,0" E	14° 12' 20,0" N	156° 20' 00,0" E	14° 10' 00,0" N
FI105	156° 20' 00,0" E	14° 10' 00,0" N	156° 20' 00,0" E	14° 12' 20,0" N	156° 22' 30,0" E	14° 12' 20,0" N	156° 22' 30,0" E	14° 10' 00,0" N
FJ105	156° 22' 30,0" E	14° 10' 00,0" N	156° 22' 30,0" E	14° 12' 20,0" N	156° 25' 00,0" E	14° 12' 20,0" N	156° 25' 00,0" E	14° 10' 00,0" N
FJ106	156° 22' 30,0" E	14° 07' 40,0" N	156° 22' 30,0" E	14° 10' 00,0" N	156° 25' 00,0" E	14° 10' 00,0" N	156° 25' 00,0" E	14° 07' 40,0" N
FK106	156° 25' 00,0" E	14° 07' 40,0" N	156° 25' 00,0" E	14° 10' 00,0" N	156° 27' 30,0" E	14° 10' 00,0" N	156° 27' 30,0" E	14° 07' 40,0" N
FK107	156° 25' 00,0" E	14° 05' 20,0" N	156° 25' 00,0" E	14° 07' 40,0" N	156° 27' 30,0" E	14° 07' 40,0" N	156° 27' 30,0" E	14° 05' 20,0" N
FJ108	156° 22' 30,0" E	14° 03' 00,0" N	156° 22' 30,0" E	14° 05' 20,0" N	156° 25' 00,0" E	14° 05' 20,0" N	156° 25' 00,0" E	14° 03' 00,0" N
FI109	156° 20' 00,0" E	14° 00' 40,0" N	156° 20' 00,0" E	14° 03' 00,0" N	156° 22' 30,0" E	14° 03' 00,0" N	156° 22' 30,0" E	14° 00' 40,0" N
FH110	156° 17' 30,0" E	13° 58' 20,0" N	156° 17' 30,0" E	14° 00' 40,0" N	156° 20' 00,0" E	14° 00' 40,0" N	156° 20' 00,0" E	13° 58' 20,0" N
FU100	156° 50' 00,0" E	14° 21' 40,0" N	156° 50' 00,0" E	14° 24' 00,0" N	156° 52' 30,0" E	14° 24' 00,0" N	156° 52' 30,0" E	14° 21' 40,0" N
FU101	156° 50' 00,0" E	14° 19' 20,0" N	156° 50' 00,0" E	14° 21' 40,0" N	156° 52' 30,0" E	14° 21' 40,0" N	156° 52' 30,0" E	14° 19' 20,0" N
FV101	156° 52' 30,0" E	14° 19' 20,0" N	156° 52' 30,0" E	14° 21' 40,0" N	156° 55' 00,0" E	14° 21' 40,0" N	156° 55' 00,0" E	14° 19' 20,0" N
FV102	156° 52' 30,0" E	14° 17' 00,0" N	156° 52' 30,0" E	14° 19' 20,0" N	156° 55' 00,0" E	14° 19' 20,0" N	156° 55' 00,0" E	14° 17' 00,0" N
FW102	156° 55' 00,0" E	14° 17' 00,0" N	156° 55' 00,0" E	14° 19' 20,0" N	156° 57' 30,0" E	14° 19' 20,0" N	156° 57' 30,0" E	14° 17' 00,0" N
FU103	156° 50' 00,0" E	14° 14' 40,0" N	156° 50' 00,0" E	14° 17' 00,0" N	156° 52' 30,0" E	14° 17' 00,0" N	156° 52' 30,0" E	14° 14' 40,0" N
FV103	156° 52' 30,0" E	14° 14' 40,0" N	156° 52' 30,0" E	14° 17' 00,0" N	156° 55' 00,0" E	14° 17' 00,0" N	156° 55' 00,0" E	14° 14' 40,0" N
FS104	156° 45' 00,0" E	14° 12' 20,0" N	156° 45' 00,0" E	14° 14' 40,0" N	156° 47' 30,0" E	14° 14' 40,0" N	156° 47' 30,0" E	14° 12' 20,0" N
FT104	156° 47' 30,0" E	14° 12' 20,0" N	156° 47' 30,0" E	14° 14' 40,0" N	156° 50' 00,0" E	14° 14' 40,0" N	156° 50' 00,0" E	14° 12' 20,0" N
FU104	156° 50' 00,0" E	14° 12' 20,0" N	156° 50' 00,0" E	14° 14' 40,0" N	156° 52' 30,0" E	14° 14' 40,0" N	156° 52' 30,0" E	14° 12' 20,0" N
<b>Gramberg Guyot</b>								
GO107	157° 40' 00,0" E	14° 05' 20,0" N	157° 40' 00,0" E	14° 07' 40,0" N	157° 42' 30,0" E	14° 07' 40,0" N	157° 42' 30,0" E	14° 05' 20,0" N
GM108	157° 35' 00,0" E	14° 03' 00,0" N	157° 35' 00,0" E	14° 05' 20,0" N	157° 37' 30,0" E	14° 05' 20,0" N	157° 37' 30,0" E	14° 03' 00,0" N

GN108	157° 37' 30,0" E	14° 03' 00,0" N	157° 37' 30,0" E	14° 05' 20,0" N	157° 40' 00,0" E	14° 05' 20,0" N	157° 40' 00,0" E	14° 03' 00,0" N
GN109	157° 37' 30,0" E	14° 00' 40,0" N	157° 37' 30,0" E	14° 03' 00,0" N	157° 40' 00,0" E	14° 03' 00,0" N	157° 40' 00,0" E	14° 00' 40,0" N
GN110	157° 37' 30,0" E	13° 58' 20,0" N	157° 37' 30,0" E	14° 00' 40,0" N	157° 40' 00,0" E	14° 00' 40,0" N	157° 40' 00,0" E	13° 58' 20,0" N
Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
GL109	157° 32' 30,0" E	14° 00' 40,0" N	157° 32' 30,0" E	14° 03' 00,0" N	157° 35' 00,0" E	14° 03' 00,0" N	157° 35' 00,0" E	14° 00' 40,0" N
GK110	157° 30' 00,0" E	13° 58' 20,0" N	157° 30' 00,0" E	14° 00' 40,0" N	157° 32' 30,0" E	14° 00' 40,0" N	157° 32' 30,0" E	13° 58' 20,0" N
GK111	157° 30' 00,0" E	13° 56' 00,0" N	157° 30' 00,0" E	13° 58' 20,0" N	157° 32' 30,0" E	13° 58' 20,0" N	157° 32' 30,0" E	13° 56' 00,0" N
GJ112	157° 27' 30,0" E	13° 53' 40,0" N	157° 27' 30,0" E	13° 56' 00,0" N	157° 30' 00,0" E	13° 56' 00,0" N	157° 30' 00,0" E	13° 53' 40,0" N
GJ113	157° 27' 30,0" E	13° 51' 20,0" N	157° 27' 30,0" E	13° 53' 40,0" N	157° 30' 00,0" E	13° 53' 40,0" N	157° 30' 00,0" E	13° 51' 20,0" N
GO110	157° 40' 00,0" E	13° 58' 20,0" N	157° 40' 00,0" E	14° 00' 40,0" N	157° 42' 30,0" E	14° 00' 40,0" N	157° 42' 30,0" E	13° 58' 20,0" N
GO111	157° 40' 00,0" E	13° 56' 00,0" N	157° 40' 00,0" E	13° 58' 20,0" N	157° 42' 30,0" E	13° 58' 20,0" N	157° 42' 30,0" E	13° 56' 00,0" N
GP111	157° 42' 30,0" E	13° 56' 00,0" N	157° 42' 30,0" E	13° 58' 20,0" N	157° 45' 00,0" E	13° 58' 20,0" N	157° 45' 00,0" E	13° 56' 00,0" N
GN112	157° 37' 30,0" E	13° 53' 40,0" N	157° 37' 30,0" E	13° 56' 00,0" N	157° 40' 00,0" E	13° 56' 00,0" N	157° 40' 00,0" E	13° 53' 40,0" N
GN113	157° 37' 30,0" E	13° 51' 20,0" N	157° 37' 30,0" E	13° 53' 40,0" N	157° 40' 00,0" E	13° 53' 40,0" N	157° 40' 00,0" E	13° 51' 20,0" N
GH114	157° 25' 00,0" E	13° 49' 00,0" N	157° 25' 00,0" E	13° 51' 20,0" N	157° 27' 30,0" E	13° 51' 20,0" N	157° 27' 30,0" E	13° 49' 00,0" N
GJ114	157° 27' 30,0" E	13° 49' 00,0" N	157° 27' 30,0" E	13° 51' 20,0" N	157° 30' 00,0" E	13° 51' 20,0" N	157° 30' 00,0" E	13° 49' 00,0" N
GK114	157° 30' 00,0" E	13° 49' 00,0" N	157° 30' 00,0" E	13° 51' 20,0" N	157° 32' 30,0" E	13° 51' 20,0" N	157° 32' 30,0" E	13° 49' 00,0" N
GII15	157° 25' 00,0" E	13° 46' 40,0" N	157° 25' 00,0" E	13° 49' 00,0" N	157° 27' 30,0" E	13° 49' 00,0" N	157° 27' 30,0" E	13° 46' 40,0" N
GH116	157° 22' 30,0" E	13° 44' 20,0" N	157° 22' 30,0" E	13° 46' 40,0" N	157° 25' 00,0" E	13° 46' 40,0" N	157° 25' 00,0" E	13° 44' 20,0" N
GL114	157° 32' 30,0" E	13° 49' 00,0" N	157° 32' 30,0" E	13° 51' 20,0" N	157° 35' 00,0" E	13° 51' 20,0" N	157° 35' 00,0" E	13° 49' 00,0" N
GM114	157° 35' 00,0" E	13° 49' 00,0" N	157° 35' 00,0" E	13° 51' 20,0" N	157° 37' 30,0" E	13° 51' 20,0" N	157° 37' 30,0" E	13° 49' 00,0" N
GN114	157° 37' 30,0" E	13° 49' 00,0" N	157° 37' 30,0" E	13° 51' 20,0" N	157° 40' 00,0" E	13° 51' 20,0" N	157° 40' 00,0" E	13° 49' 00,0" N
GM115	157° 35' 00,0" E	13° 46' 40,0" N	157° 35' 00,0" E	13° 49' 00,0" N	157° 37' 30,0" E	13° 49' 00,0" N	157° 37' 30,0" E	13° 46' 40,0" N
GN115	157° 37' 30,0" E	13° 46' 40,0" N	157° 37' 30,0" E	13° 49' 00,0" N	157° 40' 00,0" E	13° 49' 00,0" N	157° 40' 00,0" E	13° 46' 40,0" N

Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
<b>Zubov Guyot</b>								
IS65	160° 00' 00,0" E	15° 43' 20,0" N	160° 00' 00,0" E	15° 45' 40,0" N	160° 02' 30,0" E	15° 45' 40,0" N	160° 02' 30,0" E	15° 43' 20,0" N
IT65	160° 02' 30,0" E	15° 43' 20,0" N	160° 02' 30,0" E	15° 45' 40,0" N	160° 05' 00,0" E	15° 45' 40,0" N	160° 05' 00,0" E	15° 43' 20,0" N
IU65	160° 05' 00,0" E	15° 43' 20,0" N	160° 05' 00,0" E	15° 45' 40,0" N	160° 07' 30,0" E	15° 45' 40,0" N	160° 07' 30,0" E	15° 43' 20,0" N
IU66	160° 05' 00,0" E	15° 41' 00,0" N	160° 05' 00,0" E	15° 43' 20,0" N	160° 07' 30,0" E	15° 43' 20,0" N	160° 07' 30,0" E	15° 41' 00,0" N
IV66	160° 07' 30,0" E	15° 41' 00,0" N	160° 07' 30,0" E	15° 43' 20,0" N	160° 10' 00,0" E	15° 43' 20,0" N	160° 10' 00,0" E	15° 41' 00,0" N
<b>Zatonsky Guyot</b>								
IQ66	159° 55' 00,0" E	15° 41' 00,0" N	159° 55' 00,0" E	15° 43' 20,0" N	159° 57' 30,0" E	15° 43' 20,0" N	159° 57' 30,0" E	15° 41' 00,0" N
IR66	159° 57' 30,0" E	15° 41' 00,0" N	159° 57' 30,0" E	15° 43' 20,0" N	160° 00' 00,0" E	15° 43' 20,0" N	160° 00' 00,0" E	15° 41' 00,0" N
IS66	160° 00' 00,0" E	15° 41' 00,0" N	160° 00' 00,0" E	15° 43' 20,0" N	160° 02' 30,0" E	15° 43' 20,0" N	160° 02' 30,0" E	15° 41' 00,0" N
IT66	160° 02' 30,0" E	15° 41' 00,0" N	160° 02' 30,0" E	15° 43' 20,0" N	160° 05' 00,0" E	15° 43' 20,0" N	160° 05' 00,0" E	15° 41' 00,0" N
IR67	159° 57' 30,0" E	15° 38' 40,0" N	159° 57' 30,0" E	15° 41' 00,0" N	160° 00' 00,0" E	15° 41' 00,0" N	160° 00' 00,0" E	15° 38' 40,0" N
<b>Zatonsky Guyot</b>								
IS67	160° 00' 00,0" E	15° 38' 40,0" N	160° 00' 00,0" E	15° 41' 00,0" N	160° 02' 30,0" E	15° 41' 00,0" N	160° 02' 30,0" E	15° 38' 40,0" N
IT67	160° 02' 30,0" E	15° 38' 40,0" N	160° 02' 30,0" E	15° 41' 00,0" N	160° 05' 00,0" E	15° 41' 00,0" N	160° 05' 00,0" E	15° 38' 40,0" N
IU67	160° 05' 00,0" E	15° 38' 40,0" N	160° 05' 00,0" E	15° 41' 00,0" N	160° 07' 30,0" E	15° 41' 00,0" N	160° 07' 30,0" E	15° 38' 40,0" N
IV67	160° 07' 30,0" E	15° 38' 40,0" N	160° 07' 30,0" E	15° 41' 00,0" N	160° 10' 00,0" E	15° 41' 00,0" N	160° 10' 00,0" E	15° 38' 40,0" N
IU68	160° 05' 00,0" E	15° 36' 20,0" N	160° 05' 00,0" E	15° 38' 40,0" N	160° 07' 30,0" E	15° 38' 40,0" N	160° 07' 30,0" E	15° 36' 20,0" N
<b>Zatonsky Guyot</b>								
IR68	159° 57' 30,0" E	15° 36' 20,0" N	159° 57' 30,0" E	15° 38' 40,0" N	160° 00' 00,0" E	15° 38' 40,0" N	160° 00' 00,0" E	15° 36' 20,0" N
IS68	160° 00' 00,0" E	15° 36' 20,0" N	160° 00' 00,0" E	15° 38' 40,0" N	160° 02' 30,0" E	15° 38' 40,0" N	160° 02' 30,0" E	15° 36' 20,0" N
IT68	160° 02' 30,0" E	15° 36' 20,0" N	160° 02' 30,0" E	15° 38' 40,0" N	160° 05' 00,0" E	15° 38' 40,0" N	160° 05' 00,0" E	15° 36' 20,0" N
IS69	160° 00' 00,0" E	15° 34' 00,0" N	160° 00' 00,0" E	15° 36' 20,0" N	160° 02' 30,0" E	15° 36' 20,0" N	160° 02' 30,0" E	15° 34' 00,0" N
IT69	160° 02' 30,0" E	15° 34' 00,0" N	160° 02' 30,0" E	15° 36' 20,0" N	160° 05' 00,0" E	15° 36' 20,0" N	160° 05' 00,0" E	15° 34' 00,0" N
<b>Zatonsky Guyot</b>								
Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
<b>Zatonsky Guyot</b>								
GS138	157° 50' 00,0" E	12° 53' 00,0" N	157° 50' 00,0" E	12° 55' 20,0" N	157° 52' 30,0" E	12° 55' 20,0" N	157° 52' 30,0" E	12° 53' 00,0" N
GR139	157° 47' 30,0" E	12° 50' 40,0" N	157° 47' 30,0" E	12° 53' 00,0" N	157° 50' 00,0" E	12° 53' 00,0" N	157° 50' 00,0" E	12° 50' 40,0" N



GS139	157° 50' 00,0" E	12° 50' 40,0" N	157° 50' 00,0" E	12° 53' 00,0" N	157° 52' 30,0" E	12° 53' 00,0" N	157° 52' 30,0" E	12° 50' 40,0" N
GT139	157° 52' 30,0" E	12° 50' 40,0" N	157° 52' 30,0" E	12° 53' 00,0" N	157° 55' 00,0" E	12° 53' 00,0" N	157° 55' 00,0" E	12° 50' 40,0" N
GU140	157° 55' 00,0" E	12° 48' 20,0" N	157° 55' 00,0" E	12° 50' 40,0" N	157° 57' 30,0" E	12° 50' 40,0" N	157° 57' 30,0" E	12° 48' 20,0" N
GQ139	157° 45' 00,0" E	12° 50' 40,0" N	157° 45' 00,0" E	12° 53' 00,0" N	157° 47' 30,0" E	12° 53' 00,0" N	157° 47' 30,0" E	12° 50' 40,0" N
GQ140	157° 45' 00,0" E	12° 48' 20,0" N	157° 45' 00,0" E	12° 50' 40,0" N	157° 47' 30,0" E	12° 50' 40,0" N	157° 47' 30,0" E	12° 48' 20,0" N
GQ141	157° 45' 00,0" E	12° 46' 00,0" N	157° 45' 00,0" E	12° 48' 20,0" N	157° 47' 30,0" E	12° 48' 20,0" N	157° 47' 30,0" E	12° 46' 00,0" N
GR141	157° 47' 30,0" E	12° 46' 00,0" N	157° 47' 30,0" E	12° 48' 20,0" N	157° 50' 00,0" E	12° 48' 20,0" N	157° 50' 00,0" E	12° 46' 00,0" N
GQ142	157° 45' 00,0" E	12° 43' 40,0" N	157° 45' 00,0" E	12° 46' 00,0" N	157° 47' 30,0" E	12° 46' 00,0" N	157° 47' 30,0" E	12° 43' 40,0" N
GT141	157° 52' 30,0" E	12° 46' 00,0" N	157° 52' 30,0" E	12° 48' 20,0" N	157° 55' 00,0" E	12° 48' 20,0" N	157° 55' 00,0" E	12° 46' 00,0" N
GU141	157° 55' 00,0" E	12° 46' 00,0" N	157° 55' 00,0" E	12° 48' 20,0" N	157° 57' 30,0" E	12° 48' 20,0" N	157° 57' 30,0" E	12° 46' 00,0" N
GR142	157° 47' 30,0" E	12° 43' 40,0" N	157° 47' 30,0" E	12° 46' 00,0" N	157° 50' 00,0" E	12° 46' 00,0" N	157° 50' 00,0" E	12° 43' 40,0" N
GS142	157° 50' 00,0" E	12° 43' 40,0" N	157° 50' 00,0" E	12° 46' 00,0" N	157° 52' 30,0" E	12° 46' 00,0" N	157° 52' 30,0" E	12° 43' 40,0" N
GT142	157° 52' 30,0" E	12° 43' 40,0" N	157° 52' 30,0" E	12° 46' 00,0" N	157° 55' 00,0" E	12° 46' 00,0" N	157° 55' 00,0" E	12° 43' 40,0" N

Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
<b>Area 2</b>								
<b>Govorov Guyot</b>								
AI3	150° 55' 00,0" E	18° 08' 00,0" N	150° 55' 00,0" E	18° 10' 20,0" N	150° 57' 30,0" E	18° 10' 20,0" N	150° 57' 30,0" E	18° 08' 00,0" N
AH4	150° 52' 30,0" E	18° 05' 40,0" N	150° 52' 30,0" E	18° 08' 00,0" N	150° 55' 00,0" E	18° 08' 00,0" N	150° 55' 00,0" E	18° 05' 40,0" N
AI4	150° 55' 00,0" E	18° 05' 40,0" N	150° 55' 00,0" E	18° 08' 00,0" N	150° 57' 30,0" E	18° 08' 00,0" N	150° 57' 30,0" E	18° 05' 40,0" N
AG5	150° 50' 00,0" E	18° 03' 20,0" N	150° 50' 00,0" E	18° 05' 40,0" N	150° 52' 30,0" E	18° 05' 40,0" N	150° 52' 30,0" E	18° 03' 20,0" N
AH5	150° 52' 30,0" E	18° 03' 20,0" N	150° 52' 30,0" E	18° 05' 40,0" N	150° 55' 00,0" E	18° 05' 40,0" N	150° 55' 00,0" E	18° 03' 20,0" N
AJ3	150° 57' 30,0" E	18° 08' 00,0" N	150° 57' 30,0" E	18° 10' 20,0" N	151° 00' 00,0" E	18° 10' 20,0" N	151° 00' 00,0" E	18° 08' 00,0" N
AK3	151° 00' 00,0" E	18° 08' 00,0" N	151° 00' 00,0" E	18° 10' 20,0" N	151° 02' 30,0" E	18° 10' 20,0" N	151° 02' 30,0" E	18° 08' 00,0" N
AJ4	150° 57' 30,0" E	18° 05' 40,0" N	150° 57' 30,0" E	18° 08' 00,0" N	151° 00' 00,0" E	18° 08' 00,0" N	151° 00' 00,0" E	18° 05' 40,0" N
AK4	151° 00' 00,0" E	18° 05' 40,0" N	151° 00' 00,0" E	18° 08' 00,0" N	151° 02' 30,0" E	18° 08' 00,0" N	151° 02' 30,0" E	18° 05' 40,0" N
AL4	151° 02' 30,0" E	18° 05' 40,0" N	151° 02' 30,0" E	18° 08' 00,0" N	151° 05' 00,0" E	18° 08' 00,0" N	151° 05' 00,0" E	18° 05' 40,0" N

AM4	151° 05' 00,0" E	18° 05' 40,0" N	151° 05' 00,0" E	18° 08' 00,0" N	151° 07' 30,0" E	18° 08' 00,0" N	151° 07' 30,0" E	18° 05' 40,0" N
AL5	151° 02' 30,0" E	18° 03' 20,0" N	151° 02' 30,0" E	18° 05' 40,0" N	151° 05' 00,0" E	18° 05' 40,0" N	151° 05' 00,0" E	18° 03' 20,0" N
AM5	151° 05' 00,0" E	18° 03' 20,0" N	151° 05' 00,0" E	18° 05' 40,0" N	151° 07' 30,0" E	18° 05' 40,0" N	151° 07' 30,0" E	18° 03' 20,0" N
AN5	151° 07' 30,0" E	18° 03' 20,0" N	151° 07' 30,0" E	18° 05' 40,0" N	151° 10' 00,0" E	18° 05' 40,0" N	151° 10' 00,0" E	18° 03' 20,0" N
AL6	151° 02' 30,0" E	18° 01' 00,0" N	151° 02' 30,0" E	18° 03' 20,0" N	151° 05' 00,0" E	18° 03' 20,0" N	151° 05' 00,0" E	18° 01' 00,0" N
AO5	151° 10' 00,0" E	18° 03' 20,0" N	151° 10' 00,0" E	18° 05' 40,0" N	151° 12' 30,0" E	18° 05' 40,0" N	151° 12' 30,0" E	18° 03' 20,0" N
AP5	151° 12' 30,0" E	18° 03' 20,0" N	151° 12' 30,0" E	18° 05' 40,0" N	151° 15' 00,0" E	18° 05' 40,0" N	151° 15' 00,0" E	18° 03' 20,0" N
AN6	151° 07' 30,0" E	18° 01' 00,0" N	151° 07' 30,0" E	18° 03' 20,0" N	151° 10' 00,0" E	18° 03' 20,0" N	151° 10' 00,0" E	18° 01' 00,0" N
AO6	151° 10' 00,0" E	18° 01' 00,0" N	151° 10' 00,0" E	18° 03' 20,0" N	151° 12' 30,0" E	18° 03' 20,0" N	151° 12' 30,0" E	18° 01' 00,0" N
AO7	151° 10' 00,0" E	17° 58' 40,0" N	151° 10' 00,0" E	18° 01' 00,0" N	151° 12' 30,0" E	18° 01' 00,0" N	151° 12' 30,0" E	17° 58' 40,0" N
AP7	151° 12' 30,0" E	17° 58' 40,0" N	151° 12' 30,0" E	18° 01' 00,0" N	151° 15' 00,0" E	18° 01' 00,0" N	151° 15' 00,0" E	17° 58' 40,0" N
AO8	151° 10' 00,0" E	17° 56' 20,0" N	151° 10' 00,0" E	17° 58' 40,0" N	151° 12' 30,0" E	17° 58' 40,0" N	151° 12' 30,0" E	17° 56' 20,0" N
AP8	151° 12' 30,0" E	17° 56' 20,0" N	151° 12' 30,0" E	17° 58' 40,0" N	151° 15' 00,0" E	17° 58' 40,0" N	151° 15' 00,0" E	17° 56' 20,0" N
AQ8	151° 15' 00,0" E	17° 56' 20,0" N	151° 15' 00,0" E	17° 58' 40,0" N	151° 17' 30,0" E	17° 58' 40,0" N	151° 17' 30,0" E	17° 56' 20,0" N
AQ9	151° 15' 00,0" E	17° 54' 00,0" N	151° 15' 00,0" E	17° 56' 20,0" N	151° 17' 30,0" E	17° 56' 20,0" N	151° 17' 30,0" E	17° 54' 00,0" N
Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
AO9	151° 10' 00,0" E	17° 54' 00,0" N	151° 10' 00,0" E	17° 56' 20,0" N	151° 12' 30,0" E	17° 56' 20,0" N	151° 12' 30,0" E	17° 54' 00,0" N
AP9	151° 12' 30,0" E	17° 54' 00,0" N	151° 12' 30,0" E	17° 56' 20,0" N	151° 15' 00,0" E	17° 56' 20,0" N	151° 15' 00,0" E	17° 54' 00,0" N
AO10	151° 10' 00,0" E	17° 51' 40,0" N	151° 10' 00,0" E	17° 54' 00,0" N	151° 12' 30,0" E	17° 54' 00,0" N	151° 12' 30,0" E	17° 51' 40,0" N
AP10	151° 12' 30,0" E	17° 51' 40,0" N	151° 12' 30,0" E	17° 54' 00,0" N	151° 15' 00,0" E	17° 54' 00,0" N	151° 15' 00,0" E	17° 51' 40,0" N
AP11	151° 12' 30,0" E	17° 49' 20,0" N	151° 12' 30,0" E	17° 51' 40,0" N	151° 15' 00,0" E	17° 51' 40,0" N	151° 15' 00,0" E	17° 49' 20,0" N
AH7	150° 52' 30,0" E	17° 58' 40,0" N	150° 52' 30,0" E	18° 01' 00,0" N	150° 55' 00,0" E	18° 01' 00,0" N	150° 55' 00,0" E	17° 58' 40,0" N
AH8	150° 52' 30,0" E	17° 56' 20,0" N	150° 52' 30,0" E	17° 58' 40,0" N	150° 55' 00,0" E	17° 58' 40,0" N	150° 55' 00,0" E	17° 56' 20,0" N
AH9	150° 52' 30,0" E	17° 54' 00,0" N	150° 52' 30,0" E	17° 56' 20,0" N	150° 55' 00,0" E	17° 56' 20,0" N	150° 55' 00,0" E	17° 54' 00,0" N
AI9	150° 55' 00,0" E	17° 54' 00,0" N	150° 55' 00,0" E	17° 56' 20,0" N	150° 57' 30,0" E	17° 56' 20,0" N	150° 57' 30,0" E	17° 54' 00,0" N
AJ9	150° 57' 30,0" E	17° 54' 00,0" N	150° 57' 30,0" E	17° 56' 20,0" N	151° 00' 00,0" E	17° 56' 20,0" N	151° 00' 00,0" E	17° 54' 00,0" N

AG9	150° 50' 00,0" E	17° 54' 00,0" N	150° 50' 00,0" E	17° 56' 20,0" N	150° 52' 30,0" E	17° 56' 20,0" N	150° 52' 30,0" E	17° 54' 00,0" N
AD10	150° 42' 30,0" E	17° 51' 40,0" N	150° 42' 30,0" E	17° 54' 00,0" N	150° 45' 00,0" E	17° 54' 00,0" N	150° 45' 00,0" E	17° 51' 40,0" N
AE10	150° 45' 00,0" E	17° 51' 40,0" N	150° 45' 00,0" E	17° 54' 00,0" N	150° 47' 30,0" E	17° 54' 00,0" N	150° 47' 30,0" E	17° 51' 40,0" N
AF10	150° 47' 30,0" E	17° 51' 40,0" N	150° 47' 30,0" E	17° 54' 00,0" N	150° 50' 00,0" E	17° 54' 00,0" N	150° 50' 00,0" E	17° 51' 40,0" N
AG10	150° 50' 00,0" E	17° 51' 40,0" N	150° 50' 00,0" E	17° 54' 00,0" N	150° 52' 30,0" E	17° 54' 00,0" N	150° 52' 30,0" E	17° 51' 40,0" N
Z8	150° 32' 30,0" E	17° 56' 20,0" N	150° 32' 30,0" E	17° 58' 40,0" N	150° 35' 00,0" E	17° 58' 40,0" N	150° 35' 00,0" E	17° 56' 20,0" N
AA8	150° 35' 00,0" E	17° 56' 20,0" N	150° 35' 00,0" E	17° 58' 40,0" N	150° 37' 30,0" E	17° 58' 40,0" N	150° 37' 30,0" E	17° 56' 20,0" N
Z9	150° 32' 30,0" E	17° 54' 00,0" N	150° 32' 30,0" E	17° 56' 20,0" N	150° 35' 00,0" E	17° 56' 20,0" N	150° 35' 00,0" E	17° 54' 00,0" N
AB9	150° 37' 30,0" E	17° 54' 00,0" N	150° 37' 30,0" E	17° 56' 20,0" N	150° 40' 00,0" E	17° 56' 20,0" N	150° 40' 00,0" E	17° 54' 00,0" N
AC9	150° 40' 00,0" E	17° 54' 00,0" N	150° 40' 00,0" E	17° 56' 20,0" N	150° 42' 30,0" E	17° 56' 20,0" N	150° 42' 30,0" E	17° 54' 00,0" N
AU15	151° 25' 00,0" E	17° 40' 00,0" N	151° 25' 00,0" E	17° 42' 20,0" N	151° 27' 30,0" E	17° 42' 20,0" N	151° 27' 30,0" E	17° 40' 00,0" N
AV16	151° 27' 30,0" E	17° 37' 40,0" N	151° 27' 30,0" E	17° 40' 00,0" N	151° 30' 00,0" E	17° 40' 00,0" N	151° 30' 00,0" E	17° 37' 40,0" N
AV17	151° 27' 30,0" E	17° 35' 20,0" N	151° 27' 30,0" E	17° 37' 40,0" N	151° 30' 00,0" E	17° 37' 40,0" N	151° 30' 00,0" E	17° 35' 20,0" N
AV18	151° 27' 30,0" E	17° 33' 00,0" N	151° 27' 30,0" E	17° 35' 20,0" N	151° 30' 00,0" E	17° 35' 20,0" N	151° 30' 00,0" E	17° 33' 00,0" N
AW18	151° 30' 00,0" E	17° 33' 00,0" N	151° 30' 00,0" E	17° 35' 20,0" N	151° 32' 30,0" E	17° 35' 20,0" N	151° 32' 30,0" E	17° 33' 00,0" N
Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
AW19	151° 30' 00,0" E	17° 30' 40,0" N	151° 30' 00,0" E	17° 33' 00,0" N	151° 32' 30,0" E	17° 33' 00,0" N	151° 32' 30,0" E	17° 30' 40,0" N
AX19	151° 32' 30,0" E	17° 30' 40,0" N	151° 32' 30,0" E	17° 33' 00,0" N	151° 35' 00,0" E	17° 33' 00,0" N	151° 35' 00,0" E	17° 30' 40,0" N
AY19	151° 35' 00,0" E	17° 30' 40,0" N	151° 35' 00,0" E	17° 33' 00,0" N	151° 37' 30,0" E	17° 33' 00,0" N	151° 37' 30,0" E	17° 30' 40,0" N
AZ19	151° 37' 30,0" E	17° 30' 40,0" N	151° 37' 30,0" E	17° 33' 00,0" N	151° 40' 00,0" E	17° 33' 00,0" N	151° 40' 00,0" E	17° 30' 40,0" N
BA19	151° 40' 00,0" E	17° 30' 40,0" N	151° 40' 00,0" E	17° 33' 00,0" N	151° 42' 30,0" E	17° 33' 00,0" N	151° 42' 30,0" E	17° 30' 40,0" N
<b>Alba Guyot</b>								
DF28	154° 02' 30,0" E	17° 09' 40,0" N	154° 02' 30,0" E	17° 12' 00,0" N	154° 05' 00,0" E	17° 12' 00,0" N	154° 05' 00,0" E	17° 09' 40,0" N
DF29	154° 02' 30,0" E	17° 07' 20,0" N	154° 02' 30,0" E	17° 09' 40,0" N	154° 05' 00,0" E	17° 09' 40,0" N	154° 05' 00,0" E	17° 07' 20,0" N
DF30	154° 02' 30,0" E	17° 05' 00,0" N	154° 02' 30,0" E	17° 07' 20,0" N	154° 05' 00,0" E	17° 07' 20,0" N	154° 05' 00,0" E	17° 05' 00,0" N
DG31	154° 05' 00,0" E	17° 02' 40,0" N	154° 05' 00,0" E	17° 05' 00,0" N	154° 07' 30,0" E	17° 05' 00,0" N	154° 07' 30,0" E	17° 02' 40,0" N
DG32	154° 05' 00,0" E	17° 00' 20,0" N	154° 05' 00,0" E	17° 02' 40,0" N	154° 07' 30,0" E	17° 02' 40,0" N	154° 07' 30,0" E	17° 00' 20,0" N

DG33	154° 05' 00,0" E	16° 58' 00,0" N	154° 05' 00,0" E	17° 00' 20,0" N	154° 07' 30,0" E	17° 00' 20,0" N	154° 07' 30,0" E	16° 58' 00,0" N
DG34	154° 05' 00,0" E	16° 55' 40,0" N	154° 05' 00,0" E	16° 58' 00,0" N	154° 07' 30,0" E	16° 58' 00,0" N	154° 07' 30,0" E	16° 55' 40,0" N
DF35	154° 02' 30,0" E	16° 53' 20,0" N	154° 02' 30,0" E	16° 55' 40,0" N	154° 05' 00,0" E	16° 55' 40,0" N	154° 05' 00,0" E	16° 53' 20,0" N
DE36	154° 00' 00,0" E	16° 51' 00,0" N	154° 00' 00,0" E	16° 53' 20,0" N	154° 02' 30,0" E	16° 53' 20,0" N	154° 02' 30,0" E	16° 51' 00,0" N
DF36	154° 02' 30,0" E	16° 51' 00,0" N	154° 02' 30,0" E	16° 53' 20,0" N	154° 05' 00,0" E	16° 53' 20,0" N	154° 05' 00,0" E	16° 51' 00,0" N
DO32	154° 25' 00,0" E	17° 00' 20,0" N	154° 25' 00,0" E	17° 02' 40,0" N	154° 27' 30,0" E	17° 02' 40,0" N	154° 27' 30,0" E	17° 00' 20,0" N
DO33	154° 25' 00,0" E	16° 58' 00,0" N	154° 25' 00,0" E	17° 00' 20,0" N	154° 27' 30,0" E	17° 00' 20,0" N	154° 27' 30,0" E	16° 58' 00,0" N
DO34	154° 25' 00,0" E	16° 55' 40,0" N	154° 25' 00,0" E	16° 58' 00,0" N	154° 27' 30,0" E	16° 58' 00,0" N	154° 27' 30,0" E	16° 55' 40,0" N
DO35	154° 25' 00,0" E	16° 53' 20,0" N	154° 25' 00,0" E	16° 55' 40,0" N	154° 27' 30,0" E	16° 55' 40,0" N	154° 27' 30,0" E	16° 53' 20,0" N
DO36	154° 25' 00,0" E	16° 51' 00,0" N	154° 25' 00,0" E	16° 53' 20,0" N	154° 27' 30,0" E	16° 53' 20,0" N	154° 27' 30,0" E	16° 51' 00,0" N
Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
DN36	154° 22' 30,0" E	16° 51' 00,0" N	154° 22' 30,0" E	16° 53' 20,0" N	154° 25' 00,0" E	16° 53' 20,0" N	154° 25' 00,0" E	16° 51' 00,0" N
DN37	154° 22' 30,0" E	16° 48' 40,0" N	154° 22' 30,0" E	16° 51' 00,0" N	154° 25' 00,0" E	16° 51' 00,0" N	154° 25' 00,0" E	16° 48' 40,0" N
DO37	154° 25' 00,0" E	16° 48' 40,0" N	154° 25' 00,0" E	16° 51' 00,0" N	154° 27' 30,0" E	16° 51' 00,0" N	154° 27' 30,0" E	16° 48' 40,0" N
DN38	154° 22' 30,0" E	16° 46' 20,0" N	154° 22' 30,0" E	16° 48' 40,0" N	154° 25' 00,0" E	16° 48' 40,0" N	154° 25' 00,0" E	16° 46' 20,0" N
DO39	154° 25' 00,0" E	16° 44' 00,0" N	154° 25' 00,0" E	16° 46' 20,0" N	154° 27' 30,0" E	16° 46' 20,0" N	154° 27' 30,0" E	16° 44' 00,0" N
DP39	154° 27' 30,0" E	16° 44' 00,0" N	154° 27' 30,0" E	16° 46' 20,0" N	154° 30' 00,0" E	16° 46' 20,0" N	154° 30' 00,0" E	16° 44' 00,0" N
DO40	154° 25' 00,0" E	16° 41' 40,0" N	154° 25' 00,0" E	16° 44' 00,0" N	154° 27' 30,0" E	16° 44' 00,0" N	154° 27' 30,0" E	16° 41' 40,0" N
DP40	154° 27' 30,0" E	16° 41' 40,0" N	154° 27' 30,0" E	16° 44' 00,0" N	154° 30' 00,0" E	16° 44' 00,0" N	154° 30' 00,0" E	16° 41' 40,0" N
DO41	154° 25' 00,0" E	16° 39' 20,0" N	154° 25' 00,0" E	16° 41' 40,0" N	154° 27' 30,0" E	16° 41' 40,0" N	154° 27' 30,0" E	16° 39' 20,0" N
DP41	154° 27' 30,0" E	16° 39' 20,0" N	154° 27' 30,0" E	16° 41' 40,0" N	154° 30' 00,0" E	16° 41' 40,0" N	154° 30' 00,0" E	16° 39' 20,0" N
DP42	154° 27' 30,0" E	16° 37' 00,0" N	154° 27' 30,0" E	16° 39' 20,0" N	154° 30' 00,0" E	16° 39' 20,0" N	154° 30' 00,0" E	16° 37' 00,0" N
DP43	154° 27' 30,0" E	16° 34' 40,0" N	154° 27' 30,0" E	16° 37' 00,0" N	154° 30' 00,0" E	16° 37' 00,0" N	154° 30' 00,0" E	16° 34' 40,0" N
DO44	154° 25' 00,0" E	16° 32' 20,0" N	154° 25' 00,0" E	16° 34' 40,0" N	154° 27' 30,0" E	16° 34' 40,0" N	154° 27' 30,0" E	16° 32' 20,0" N
DO45	154° 25' 00,0" E	16° 30' 00,0" N	154° 25' 00,0" E	16° 32' 20,0" N	154° 27' 30,0" E	16° 32' 20,0" N	154° 27' 30,0" E	16° 30' 00,0" N
DO46	154° 25' 00,0" E	16° 27' 40,0" N	154° 25' 00,0" E	16° 30' 00,0" N	154° 27' 30,0" E	16° 30' 00,0" N	154° 27' 30,0" E	16° 27' 40,0" N

DM43	154° 20' 00,0" E	16° 34' 40,0" N	154° 20' 00,0" E	16° 37' 00,0" N	154° 22' 30,0" E	16° 37' 00,0" N	154° 22' 30,0" E	16° 34' 40,0" N
DN43	154° 22' 30,0" E	16° 34' 40,0" N	154° 22' 30,0" E	16° 37' 00,0" N	154° 25' 00,0" E	16° 37' 00,0" N	154° 25' 00,0" E	16° 34' 40,0" N
DM44	154° 20' 00,0" E	16° 32' 20,0" N	154° 20' 00,0" E	16° 34' 40,0" N	154° 22' 30,0" E	16° 34' 40,0" N	154° 22' 30,0" E	16° 32' 20,0" N
DN44	154° 22' 30,0" E	16° 32' 20,0" N	154° 22' 30,0" E	16° 34' 40,0" N	154° 25' 00,0" E	16° 34' 40,0" N	154° 25' 00,0" E	16° 32' 20,0" N
DM45	154° 20' 00,0" E	16° 30' 00,0" N	154° 20' 00,0" E	16° 32' 20,0" N	154° 22' 30,0" E	16° 32' 20,0" N	154° 22' 30,0" E	16° 30' 00,0" N
Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
<b>Kotsebu Guyot</b>								
BW18	152° 35' 00,0" E	17° 33' 00,0" N	152° 35' 00,0" E	17° 35' 20,0" N	152° 37' 30,0" E	17° 35' 20,0" N	152° 37' 30,0" E	17° 33' 00,0" N
BW19	152° 35' 00,0" E	17° 30' 40,0" N	152° 35' 00,0" E	17° 33' 00,0" N	152° 37' 30,0" E	17° 33' 00,0" N	152° 37' 30,0" E	17° 30' 40,0" N
BX19	152° 37' 30,0" E	17° 30' 40,0" N	152° 37' 30,0" E	17° 33' 00,0" N	152° 40' 00,0" E	17° 33' 00,0" N	152° 40' 00,0" E	17° 30' 40,0" N
BX20	152° 37' 30,0" E	17° 28' 20,0" N	152° 37' 30,0" E	17° 30' 40,0" N	152° 40' 00,0" E	17° 30' 40,0" N	152° 40' 00,0" E	17° 28' 20,0" N
BY20	152° 40' 00,0" E	17° 28' 20,0" N	152° 40' 00,0" E	17° 30' 40,0" N	152° 42' 30,0" E	17° 30' 40,0" N	152° 42' 30,0" E	17° 28' 20,0" N
BW20	152° 35' 00,0" E	17° 28' 20,0" N	152° 35' 00,0" E	17° 30' 40,0" N	152° 37' 30,0" E	17° 30' 40,0" N	152° 37' 30,0" E	17° 28' 20,0" N
BW21	152° 35' 00,0" E	17° 26' 00,0" N	152° 35' 00,0" E	17° 28' 20,0" N	152° 37' 30,0" E	17° 28' 20,0" N	152° 37' 30,0" E	17° 26' 00,0" N
BV22	152° 32' 30,0" E	17° 23' 40,0" N	152° 32' 30,0" E	17° 26' 00,0" N	152° 35' 00,0" E	17° 26' 00,0" N	152° 35' 00,0" E	17° 23' 40,0" N
BW22	152° 35' 00,0" E	17° 23' 40,0" N	152° 35' 00,0" E	17° 26' 00,0" N	152° 37' 30,0" E	17° 26' 00,0" N	152° 37' 30,0" E	17° 23' 40,0" N
BV23	152° 32' 30,0" E	17° 21' 20,0" N	152° 32' 30,0" E	17° 23' 40,0" N	152° 35' 00,0" E	17° 23' 40,0" N	152° 35' 00,0" E	17° 21' 20,0" N
CC21	152° 50' 00,0" E	17° 26' 00,0" N	152° 50' 00,0" E	17° 28' 20,0" N	152° 52' 30,0" E	17° 28' 20,0" N	152° 52' 30,0" E	17° 26' 00,0" N
CB22	152° 47' 30,0" E	17° 23' 40,0" N	152° 47' 30,0" E	17° 26' 00,0" N	152° 50' 00,0" E	17° 26' 00,0" N	152° 50' 00,0" E	17° 23' 40,0" N
CC22	152° 50' 00,0" E	17° 23' 40,0" N	152° 50' 00,0" E	17° 26' 00,0" N	152° 52' 30,0" E	17° 26' 00,0" N	152° 52' 30,0" E	17° 23' 40,0" N
BZ22	152° 42' 30,0" E	17° 23' 40,0" N	152° 42' 30,0" E	17° 26' 00,0" N	152° 45' 00,0" E	17° 26' 00,0" N	152° 45' 00,0" E	17° 23' 40,0" N
CA23	152° 45' 00,0" E	17° 21' 20,0" N	152° 45' 00,0" E	17° 23' 40,0" N	152° 47' 30,0" E	17° 23' 40,0" N	152° 47' 30,0" E	17° 21' 20,0" N
BX24	152° 37' 30,0" E	17° 19' 00,0" N	152° 37' 30,0" E	17° 21' 20,0" N	152° 40' 00,0" E	17° 21' 20,0" N	152° 40' 00,0" E	17° 19' 00,0" N
BY24	152° 40' 00,0" E	17° 19' 00,0" N	152° 40' 00,0" E	17° 21' 20,0" N	152° 42' 30,0" E	17° 21' 20,0" N	152° 42' 30,0" E	17° 19' 00,0" N
BZ24	152° 42' 30,0" E	17° 19' 00,0" N	152° 42' 30,0" E	17° 21' 20,0" N	152° 45' 00,0" E	17° 21' 20,0" N	152° 45' 00,0" E	17° 19' 00,0" N
CA24	152° 45' 00,0" E	17° 19' 00,0" N	152° 45' 00,0" E	17° 21' 20,0" N	152° 47' 30,0" E	17° 21' 20,0" N	152° 47' 30,0" E	17° 19' 00,0" N
BW25	152° 35' 00,0" E	17° 16' 40,0" N	152° 35' 00,0" E	17° 19' 00,0" N	152° 37' 30,0" E	17° 19' 00,0" N	152° 37' 30,0" E	17° 16' 40,0" N

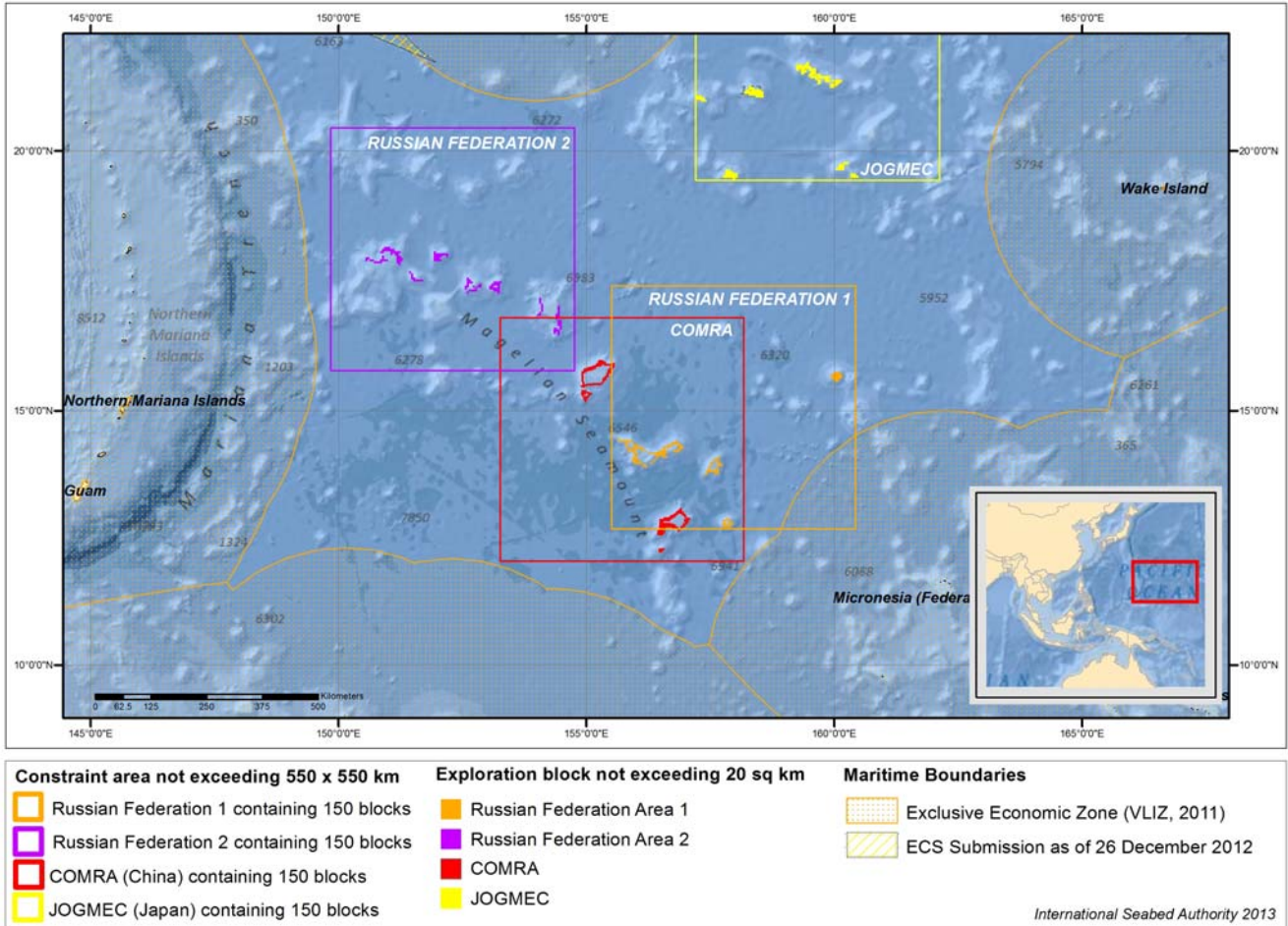
Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
CJ20	153° 07' 30,0" E	17° 28' 20,0" N	153° 07' 30,0" E	17° 30' 40,0" N	153° 10' 00,0" E	17° 30' 40,0" N	153° 10' 00,0" E	17° 28' 20,0" N
CI21	153° 05' 00,0" E	17° 26' 00,0" N	153° 05' 00,0" E	17° 28' 20,0" N	153° 07' 30,0" E	17° 28' 20,0" N	153° 07' 30,0" E	17° 26' 00,0" N
CJ21	153° 07' 30,0" E	17° 26' 00,0" N	153° 07' 30,0" E	17° 28' 20,0" N	153° 10' 00,0" E	17° 28' 20,0" N	153° 10' 00,0" E	17° 26' 00,0" N
CK21	153° 10' 00,0" E	17° 26' 00,0" N	153° 10' 00,0" E	17° 28' 20,0" N	153° 12' 30,0" E	17° 28' 20,0" N	153° 12' 30,0" E	17° 26' 00,0" N
CI22	153° 05' 00,0" E	17° 23' 40,0" N	153° 05' 00,0" E	17° 26' 00,0" N	153° 07' 30,0" E	17° 26' 00,0" N	153° 07' 30,0" E	17° 23' 40,0" N
CK20	153° 10' 00,0" E	17° 28' 20,0" N	153° 10' 00,0" E	17° 30' 40,0" N	153° 12' 30,0" E	17° 30' 40,0" N	153° 12' 30,0" E	17° 28' 20,0" N
CL20	153° 12' 30,0" E	17° 28' 20,0" N	153° 12' 30,0" E	17° 30' 40,0" N	153° 15' 00,0" E	17° 30' 40,0" N	153° 15' 00,0" E	17° 28' 20,0" N
CM20	153° 15' 00,0" E	17° 28' 20,0" N	153° 15' 00,0" E	17° 30' 40,0" N	153° 17' 30,0" E	17° 30' 40,0" N	153° 17' 30,0" E	17° 28' 20,0" N
CL21	153° 12' 30,0" E	17° 26' 00,0" N	153° 12' 30,0" E	17° 28' 20,0" N	153° 15' 00,0" E	17° 28' 20,0" N	153° 15' 00,0" E	17° 26' 00,0" N
CL22	153° 12' 30,0" E	17° 23' 40,0" N	153° 12' 30,0" E	17° 26' 00,0" N	153° 15' 00,0" E	17° 26' 00,0" N	153° 15' 00,0" E	17° 23' 40,0" N
CH22	153° 02' 30,0" E	17° 23' 40,0" N	153° 02' 30,0" E	17° 26' 00,0" N	153° 05' 00,0" E	17° 26' 00,0" N	153° 05' 00,0" E	17° 23' 40,0" N
CH23	153° 02' 30,0" E	17° 21' 20,0" N	153° 02' 30,0" E	17° 23' 40,0" N	153° 05' 00,0" E	17° 23' 40,0" N	153° 05' 00,0" E	17° 21' 20,0" N
CI23	153° 05' 00,0" E	17° 21' 20,0" N	153° 05' 00,0" E	17° 23' 40,0" N	153° 07' 30,0" E	17° 23' 40,0" N	153° 07' 30,0" E	17° 21' 20,0" N
CJ23	153° 07' 30,0" E	17° 21' 20,0" N	153° 07' 30,0" E	17° 23' 40,0" N	153° 10' 00,0" E	17° 23' 40,0" N	153° 10' 00,0" E	17° 21' 20,0" N
CK23	153° 10' 00,0" E	17° 21' 20,0" N	153° 10' 00,0" E	17° 23' 40,0" N	153° 12' 30,0" E	17° 23' 40,0" N	153° 12' 30,0" E	17° 21' 20,0" N
CL23	153° 12' 30,0" E	17° 21' 20,0" N	153° 12' 30,0" E	17° 23' 40,0" N	153° 15' 00,0" E	17° 23' 40,0" N	153° 15' 00,0" E	17° 21' 20,0" N
CJ24	153° 07' 30,0" E	17° 19' 00,0" N	153° 07' 30,0" E	17° 21' 20,0" N	153° 10' 00,0" E	17° 21' 20,0" N	153° 10' 00,0" E	17° 19' 00,0" N
CK24	153° 10' 00,0" E	17° 19' 00,0" N	153° 10' 00,0" E	17° 21' 20,0" N	153° 12' 30,0" E	17° 21' 20,0" N	153° 12' 30,0" E	17° 19' 00,0" N
CL24	153° 12' 30,0" E	17° 19' 00,0" N	153° 12' 30,0" E	17° 21' 20,0" N	153° 15' 00,0" E	17° 21' 20,0" N	153° 15' 00,0" E	17° 19' 00,0" N
CL25	153° 12' 30,0" E	17° 16' 40,0" N	153° 12' 30,0" E	17° 19' 00,0" N	153° 15' 00,0" E	17° 19' 00,0" N	153° 15' 00,0" E	17° 16' 40,0" N
Block number	Coordinates of corners of block							
	X <sub>1</sub>	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>	X <sub>3</sub>	Y <sub>3</sub>	X <sub>4</sub>	Y <sub>4</sub>
<b>Volcanologist Guyot</b>								
BG5	151° 55' 00,0" E	18° 03' 20,0" N	151° 55' 00,0" E	18° 05' 40,0" N	151° 57' 30,0" E	18° 05' 40,0" N	151° 57' 30,0" E	18° 03' 20,0" N

BG6	151° 55' 00,0" E	18° 01' 00,0" N	151° 55' 00,0" E	18° 03' 20,0" N	151° 57' 30,0" E	18° 03' 20,0" N	151° 57' 30,0" E	18° 01' 00,0" N
BH6	151° 57' 30,0" E	18° 01' 00,0" N	151° 57' 30,0" E	18° 03' 20,0" N	152° 00' 00,0" E	18° 03' 20,0" N	152° 00' 00,0" E	18° 01' 00,0" N
BG7	151° 55' 00,0" E	17° 58' 40,0" N	151° 55' 00,0" E	18° 01' 00,0" N	151° 57' 30,0" E	18° 01' 00,0" N	151° 57' 30,0" E	17° 58' 40,0" N
BH7	151° 57' 30,0" E	17° 58' 40,0" N	151° 57' 30,0" E	18° 01' 00,0" N	152° 00' 00,0" E	18° 01' 00,0" N	152° 00' 00,0" E	17° 58' 40,0" N
BI6	152° 00' 00,0" E	18° 01' 00,0" N	152° 00' 00,0" E	18° 03' 20,0" N	152° 02' 30,0" E	18° 03' 20,0" N	152° 02' 30,0" E	18° 01' 00,0" N
BI7	152° 00' 00,0" E	17° 58' 40,0" N	152° 00' 00,0" E	18° 01' 00,0" N	152° 02' 30,0" E	18° 01' 00,0" N	152° 02' 30,0" E	17° 58' 40,0" N
BJ7	152° 02' 30,0" E	17° 58' 40,0" N	152° 02' 30,0" E	18° 01' 00,0" N	152° 05' 00,0" E	18° 01' 00,0" N	152° 05' 00,0" E	17° 58' 40,0" N
BH8	151° 57' 30,0" E	17° 56' 20,0" N	151° 57' 30,0" E	17° 58' 40,0" N	152° 00' 00,0" E	17° 58' 40,0" N	152° 00' 00,0" E	17° 56' 20,0" N
BI8	152° 00' 00,0" E	17° 56' 20,0" N	152° 00' 00,0" E	17° 58' 40,0" N	152° 02' 30,0" E	17° 58' 40,0" N	152° 02' 30,0" E	17° 56' 20,0" N
BJ6	152° 02' 30,0" E	18° 01' 00,0" N	152° 02' 30,0" E	18° 03' 20,0" N	152° 05' 00,0" E	18° 03' 20,0" N	152° 05' 00,0" E	18° 01' 00,0" N
BK6	152° 05' 00,0" E	18° 01' 00,0" N	152° 05' 00,0" E	18° 03' 20,0" N	152° 07' 30,0" E	18° 03' 20,0" N	152° 07' 30,0" E	18° 01' 00,0" N
BL6	152° 07' 30,0" E	18° 01' 00,0" N	152° 07' 30,0" E	18° 03' 20,0" N	152° 10' 00,0" E	18° 03' 20,0" N	152° 10' 00,0" E	18° 01' 00,0" N
BM6	152° 10' 00,0" E	18° 01' 00,0" N	152° 10' 00,0" E	18° 03' 20,0" N	152° 12' 30,0" E	18° 03' 20,0" N	152° 12' 30,0" E	18° 01' 00,0" N
BM7	152° 10' 00,0" E	17° 58' 40,0" N	152° 10' 00,0" E	18° 01' 00,0" N	152° 12' 30,0" E	18° 01' 00,0" N	152° 12' 30,0" E	17° 58' 40,0" N
BG8	151° 55' 00,0" E	17° 56' 20,0" N	151° 55' 00,0" E	17° 58' 40,0" N	151° 57' 30,0" E	17° 58' 40,0" N	151° 57' 30,0" E	17° 56' 20,0" N
BG9	151° 55' 00,0" E	17° 54' 00,0" N	151° 55' 00,0" E	17° 56' 20,0" N	151° 57' 30,0" E	17° 56' 20,0" N	151° 57' 30,0" E	17° 54' 00,0" N
BH9	151° 57' 30,0" E	17° 54' 00,0" N	151° 57' 30,0" E	17° 56' 20,0" N	152° 00' 00,0" E	17° 56' 20,0" N	152° 00' 00,0" E	17° 54' 00,0" N
BI9	152° 00' 00,0" E	17° 54' 00,0" N	152° 00' 00,0" E	17° 56' 20,0" N	152° 02' 30,0" E	17° 56' 20,0" N	152° 02' 30,0" E	17° 54' 00,0" N
BJ9	152° 02' 30,0" E	17° 54' 00,0" N	152° 02' 30,0" E	17° 56' 20,0" N	152° 05' 00,0" E	17° 56' 20,0" N	152° 05' 00,0" E	17° 54' 00,0" N



**Annex II**

**Map of the general location of the proposed reserved area (area 1) and exploration area (area 2)**





## Council

Distr.: General  
9 September 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by UK Seabed Resources Ltd.**

#### **I. Introduction**

1. On 8 February 2013, the Secretary-General of the International Seabed Authority received an application from UK Seabed Resources Ltd. (UKSRL) for the approval of a plan of work for exploration for polymetallic nodules in the Area (see [ISBA/19/LTC/9](#)). The application was submitted pursuant to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area ([ISBA/6/A/18](#), annex).

2. In accordance with regulation 20, paragraph 1 (c), of the Regulations, by a note verbale dated 5 March 2013, the Secretary-General notified the members of the Authority of the receipt of the application and circulated information of a general nature concerning the application. The Secretary-General also placed consideration of the application on the agenda of the meeting of the Legal and Technical Commission held from 8 to 15 July 2013.

#### **II. Methodology for consideration of the application by the Legal and Technical Commission**

##### **A. General methodology applied by the Commission in consideration of the application**

3. In its consideration of the application, the Commission noted that, in keeping with the scheme established in article 6 of annex III to the United Nations Convention on the Law of the Sea, it was first required to make an objective determination as to whether the applicant had fulfilled the requirements contained in the Regulations, particularly with respect to the form of applications; whether the



applicant had provided the necessary undertakings and assurances specified in regulation 14; whether it had the necessary financial and technical capability to carry out the proposed plan of work for exploration; and, as appropriate, had satisfactorily discharged its obligations under any previous contract with the International Seabed Authority. The Commission is then required to determine, in accordance with regulation 21, paragraph 4, whether the proposed plan of work will provide for effective protection of human health and safety and effective protection and preservation of the marine environment and will ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity. Regulation 21, paragraph 5, provides that, if the Commission makes the determinations specified in paragraph 3 of regulation 21 and determines that the proposed plan of work for exploration meets the requirements of paragraph 4, the Commission shall recommend approval of the plan of work for exploration to the Council.

4. In considering the proposed plan of work for exploration for polymetallic nodules, the Commission took into account the principles, policies and objectives relating to activities in the Area as provided for in part XI and annex III of the Convention and in the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea, adopted in 1994.

## **B. Consideration of the application**

5. The Commission considered the application in closed meetings on 9, 10 and 11 July 2013 during the nineteenth session and on 4, 5, 6, 7 and 10 February 2014 during the twentieth session.

6. Prior to commencing a detailed examination of the application, the Commission invited the applicant's designated representative, Stephen Ball, Chief Executive of UKSRL, to make a presentation of the application. He was accompanied by Duncan Cunningham, Director, UKSRL; Charles Morgan, consultant; Chris Whomersley, Head of the delegation of the United Kingdom of Great Britain and Northern Ireland and Deputy Legal Adviser to the Foreign and Commonwealth Office of the United Kingdom; and Horacio Licon, United Kingdom Trade and Investment. The following observers were also present: Vikram Verma, Lockheed Martin; Jennifer Warren, Lockheed Martin; John Stevens, Legal Counsel, UKSRL, and Lockheed Martin UK; and Ralph Spickermann, Chief Engineer, UKSRL. Members of the Commission then asked questions to clarify certain aspects of the application before convening in closed session to examine the application in detail. Following its initial consideration, the Commission decided to request the Chair of the Commission to transmit a list of questions to the applicant in writing. Responses were received from the applicant; however, the Commission did not have time to complete its consideration of the application and decided to defer it, to be taken up as a matter of priority at its next meeting, in February 2014.

### **III. Summary of basic information regarding the application**

#### **A. Identification of the applicant**

7. The name and address of the applicant are as follows:
  - (a) Name: UK Seabed Resources Ltd. (UKSRL);
  - (b) Street address: Cunard House, 15 Regent Street, London, SW1Y 4LR, United Kingdom;
  - (c) Postal address: as above;
  - (d) Telephone number: 44(0) 20 7979 8020;
  - (e) Facsimile number: 44(0) 20 7979 8090.
8. The applicant's designated representative is:
  - (a) Name: Stephen Ball;
  - (b) Street and postal addresses: as above;
  - (c) Telephone number: as above;
  - (d) Facsimile number: as above;
  - (e) E-mail address: [stephen.ball@ukseabedresources.co.uk](mailto:stephen.ball@ukseabedresources.co.uk);
  - (f) Applicant's place of registration and principal place of business/domicile: United Kingdom.
9. The applicant stated that it was a wholly owned subsidiary of Lockheed Martin UK Holdings Ltd. (LMUK). Both UK Seabed Resources Ltd. and LMUK are companies formed under the laws of the United Kingdom and based in the United Kingdom.

#### **B. Sponsorship**

10. The sponsoring State is the United Kingdom.
11. The date of deposit of the sponsoring State's instrument of accession to the United Nations Convention on the Law of the Sea and the date of its ratification of the Agreement relating to the implementation of Part XI of the Convention is 25 July 1997.
12. The certificate of sponsorship is dated 8 February 2013; it was issued by Vincent Cable, Secretary of State for Business, Innovation and Skills of the United Kingdom.
13. The certificate of sponsorship states that the United Kingdom assumes responsibility for the activities of the applicant, in accordance with article 139 and paragraph 4 of article 153 of the Convention and paragraph 4 of article 4 of annex III to the Convention. The sponsoring State declares that the applicant is a duly incorporated and registered company under the laws of the United Kingdom, with its registered office in the United Kingdom; as such, it is a national of the United Kingdom. It also states that the Chairman is a national and resident of the United Kingdom and that the company will require a licence under the deep-sea

mining legislation of the United Kingdom. Accordingly, the sponsoring State declares that the company is subject to the effective control and supervision of the Government of the United Kingdom.

14. In a letter dated 8 February 2013, the applicant referred to domestic regulations as an important element of responsible sponsorship, as clarified in the Advisory Opinion rendered on 1 February 2011 by the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea. In this respect, the sponsoring State has enacted deep-sea mining legislation and has associated regulations in place, including the Deep Sea Mining (Temporary Provisions) Act 1981 and the Deep Sea Mining (Exploration Licences) Regulations 1984. In the aforementioned letter, the applicant stated that the sponsoring State had confirmed that UK Seabed Resources Ltd. met all requirements of an exploration licence under its domestic legislation, including requirements for technical and financial capability, effective control and environmentally responsible exploration. Consequently, the sponsoring State has granted an exploration licence to the applicant for the area under application, which will become effective upon the applicant entering into contract with the Authority.

### **C. Area of application**

15. The application area is in the eastern part of the Clarion-Clipperton zone. The application area is contiguous and divided into two parts, labelled part A and part B, which are contiguous and nested together. Part A comprises 74,919 km<sup>2</sup> and part B comprises 74,904 km<sup>2</sup>. The water depths in the area under application vary between about 2,100 and 5,200 m, with the average depth being 4,800 m, and a majority of the slopes below 2 degrees. The coordinates and general location of the areas under application are shown in the annex to the present document.

### **D. Other information**

16. The applicant has previously been awarded a contract with the Authority as follows:

(a) UK Seabed Resources Ltd. and the Authority signed a contract for exploration for polymetallic nodules in the Area on 8 February 2013;

(b) Given the recent date of signature of the contract, no reports have been required to date to be submitted to the Authority;

(c) The date of expiry of the contract is 7 February 2028.

17. In accordance with regulation 14, the application includes a written undertaking dated 8 February 2013 and signed by the applicant's designated representative.

18. The applicant has paid a fee of \$500,000 in accordance with regulation 19 of the Regulations.

#### **IV. Examination of information and technical data submitted by the applicant**

19. The following technical documents were provided:
  - (a) Information relating to the area under application:
    - (i) A list of geographical coordinates, in accordance with the World Geodetic System 1984, describing the boundaries of the area under application;
    - (ii) A chart of the location of the application area;
    - (iii) A list of the geographical coordinates of the boundary dividing the area into two parts of equal estimated commercial value;
    - (iv) Information, including data available to the applicant, to enable the Council to designate a reserved area based on the estimated commercial value of the two parts of the area under application, including:
      - a. Data on the location, survey and evaluation of the polymetallic nodules in the area under application, including:
        - i. A description of the technology related to the recovery and processing of polymetallic nodules;
        - ii. Maps of bathymetry and regional slope and information on the availability and reliability of the data shown on these maps;
        - iii. Data on the average density (abundance) of polymetallic nodules, with an associated abundance map showing the location of sampling sites;
        - iv. Data on the average elemental content of metals of economic interest (grade) based on chemical assays in (dry) weight per cent and associated grade maps;
        - v. Combined maps of abundance and grade of polymetallic nodules;
        - vi. Calculations to determine the equal estimated commercial value, expressed as recoverable metals in mineable areas, of the two parts of the application area;
        - vii. A description of the techniques used by the applicant;
      - b. Information on wind speed and direction; wave height, period and direction; current; water temperature and salinity; and biological communities;
      - c. A certificate of sponsorship issued by the sponsoring State;
      - d. Information to enable the Council to determine whether the applicant is financially capable of carrying out the proposed plan of work for exploration;
      - e. Information to enable the Council to determine whether the applicant is technically capable of carrying out the proposed plan of work for exploration;
      - f. Plan of work for exploration; and
      - g. Training programmes.

## **V. Consideration of financial and technical qualifications of the applicant**

### **A. Financial capacity**

20. Given that the applicant is a newly formed entity, the Commission was provided with a certified pro forma balance sheet in order to inform its evaluation of the financial capacity of the applicant, in accordance with regulation 12, paragraph 5. The pro forma sheet was certified by the applicant's designated representative. The applicant also submitted the audited consolidated financial statements of LMUK, the applicant's parent company, in accordance with regulation 12, paragraph 7. In a letter describing the financial capabilities of the applicant, its designated representative stated that, should it be necessary, the applicant may seek to draw upon funds from Lockheed Martin Corporation (LMC), of which LMUK is a component.

### **B. Technical capacity**

21. The applicant stated that it holds rights granting it access to certain data, resources and subject matter expertise of LMC related to polymetallic nodule resource surveying, analysis and recovery methods. The applicant notes that LMC was the prime contractor and the technology provider for the Ocean Minerals Company consortium, which was one of the leading participants in seabed minerals efforts in the 1970s and 1980s. In addition, LMC has more than 50 years of experience in large-scale ocean systems design and development, including multiple deep-water efforts. Therefore, the applicant may seek to capitalize upon the company's extensive experience with polymetallic nodule mining and its technical capabilities, developed through its historical work, recent analyses and ongoing efforts.

22. In evaluating the technical capacity of the applicant, the Commission noted that the applicant had provided information related to its previous experience, knowledge, skills, technical qualifications and expertise relevant to the proposed plan of work, and related to the equipment, methods and technology needed in order to carry out the proposed plan of exploration. In addition, the applicant stated that, in relation to the previously awarded contract, it had assembled a team of leading scientific experts to perform a baseline study of benthic biological communities during the first contract year. The applicant also indicated that an expedition planning workshop, that would include experts from industry and academia, had been scheduled to review and recommend tools and techniques for data collection and environmental baselining.

23. The applicant intends to complete its exploration activities within six years. However, if they are not completed by year 6, the applicant will adjust some of its activities to extend over some or all of the remaining years 7 to 15, in accordance with section 4 of annex IV. The applicant stated that the plan of work had a twofold objective: the identification of one or more sites as potential recovery sites that could be used for subsequent testing of commercial recovery systems; and the establishment of an environmental baseline for use in determining the environmental impact of the testing. The applicant provided extensive information about the programme of work to be performed in the first five years of the contract,

including details on the environmental activities to be conducted within a minimum of a 30 km x 30 km stratum on each cruise. The applicant stated that it would carry out environmental and surveying work on every cruise and that it intended to have biological and geophysical subject matter experts on every cruise, regardless of whether the cruise was focused on environmental or surveying work. Once a suitable site for preliminary testing of mining equipment has been located, after the third or fourth year of the plan of work, the applicant intends to collect local data on the water column, including its physics, chemistry and biological communities. The objectives of the survey cruises will be to obtain ore body delineation and prioritize commercial recovery operations. The applicant stated that any activities beyond the initial five-year period would not proceed without the necessary environmental studies and consultation. In addition, any at-sea testing of proposed commercial recovery systems will not occur without the approvals from the Authority and the sponsoring State or the regulatory transition from exploration to exploitation, as defined by the Authority.

24. The applicant provided information related to the prevention, reduction and control of hazards and possible impacts to the marine environment and stated that all proposed activities in the initial five-year period of the plan of work would be environmentally benign, with no potential for causing serious harm to the marine environment, and would not require environmental impact assessment. The applicant stated that, during the first five years of the plan of work, selected environmental data would be compiled for use in decisions regarding environmental safeguards and monitoring activities pertinent to subsequent exploration activities and commercial resource recovery.

## **VI. Consideration of data and information submitted for the designation of a reserved area and determination of equal estimated commercial value**

25. The applicant indicated the coordinates dividing the area under application into two parts of equal estimated commercial value. The Council, on the recommendation of the Commission, shall designate one of these parts as the area reserved for the Authority. The other part will become the applicant's exploration area. The calculation of the estimated commercial value was done by the applicant in several steps.

### **A. Methodology used by the applicant for the calculation of the estimated commercial value**

26. The applicant provided both raw data and kriged block average abundance and grade for the area under application. The applicant also provided the basis for calculating the kriged values and the variogram analysis. Preliminary economic evaluation of conceptual mining and processing systems suggest that the key factors for the evaluation of a mine site are nodule abundance and nickel concentration, as well as maximum seafloor slope.



## **B. Summary and conclusions relating to the determination of equal estimated commercial value**

27. The Commission accepted the methodology presented by the applicant to classify parts A and B as two parts of equal estimated commercial value. Nodule abundance and copper concentration are comparable in both areas. Nickel concentration in the analysed samples is slightly higher in part A, contrary to what is observed for the manganese content, the latter being significantly higher in part B. In addition, the number of analysed nodules is considerably higher in part B, which increases the level of confidence for metal-grade estimates. Finally, seabed morphology in part B is characterized by lower slopes than in part A. Accordingly, the Commission recommends part B as the reserved area for the Authority.

## **VII. Consideration of data and information submitted for approval of the plan of work for exploration**

28. In accordance with regulation 18, the application included the following information for approval of the plan of work for exploration:

(a) A general description and schedule of the proposed exploration programme, including the programme for the first five-year period, such as studies to be undertaken in respect of the environmental, technical, economic and other appropriate factors that must be taken into account in exploration;

(b) A description of the programme for oceanographic and environmental baseline studies, in accordance with the Regulations and any environmental rules, regulations or procedures established by the Authority that would enable an assessment of the potential environmental impact of the proposed exploration activities, taking into account any recommendations issued by the Legal and Technical Commission;

(c) A preliminary assessment of the possible impact of the proposed exploration activities on the marine environment;

(d) A description of proposed measures for the prevention, reduction and control of pollution and other hazards, as well as possible impacts, to the marine environment;

(e) Data necessary for the Council to make the determination it is required to make in accordance with regulation 12, paragraph 1; and

(f) A schedule of anticipated yearly expenditures in respect of the programme of activities for the first five-year period.

## **VIII. Training programmes**

29. The applicant provided details about the training programme, in accordance with regulation 27 and section 8 of annex IV. Over the duration of the proposed plan of work, the applicant will provide at least 10 trainees with valuable opportunities to participate in one of the following three training programmes: an at-sea exploration training programme (oceanographic, environmental, geological or geophysical

activities); a bursaries and fellowship programme (approximately 24 months each); and an engineering training programme (approximately 3 months). In addition, the applicant stated that, depending on the timing of the exploration programme and the qualifications of the candidate, other training opportunities may be available on land in the areas of metallurgy, marine engineering, marine biology, business, finance and other relevant related fields. The Commission highlighted that, in developing the training programmes, the applicant and the Secretary-General should ensure that the training programmes are in line with the Recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration, as developed by the Commission during the nineteenth session ([ISBA/19/LTC/14](#)).

## **IX. Conclusion and recommendations**

30. Having examined the particulars submitted by the applicant, which are summarized in sections III to VIII above, the Commission is satisfied that the application has been duly submitted in accordance with the Regulations and that the applicant:

- (a) Has complied with the provisions of the Regulations;
- (b) Has given the undertakings and assurances specified in regulation 14;
- (c) Possesses the financial and technical capability to carry out the proposed plan of work for exploration.

31. The Commission is satisfied that none of the conditions in regulation 21, paragraph 6, of the Regulations apply.

32. The Commission is satisfied that the proposed plan of work for exploration will:

- (a) Provide for effective protection of human health and safety;
- (b) Provide for effective protection and preservation of the marine environment;
- (c) Ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity.

33. Accordingly, pursuant to regulation 21, paragraph 5, of the Regulations, the Commission recommends to the Council approval of the plan of work for exploration submitted by UK Seabed Resources Ltd.

34. The Commission also recommends to the Council to designate part B within the application for approval of the plan of work for exploration as the area reserved for the Authority and to allocate part A to the applicant as its exploration area.

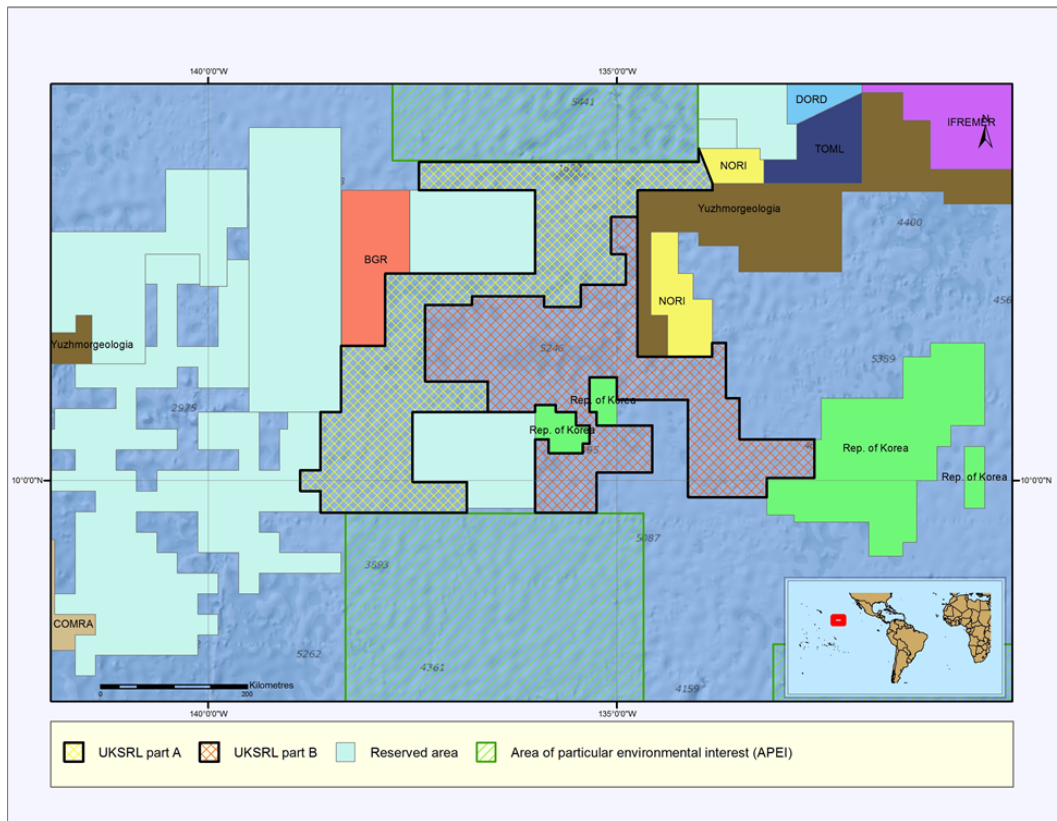
**Annex****A. List of coordinates of the reserved area (part B) and exploration area (part A) (in decimal degrees, in accordance with the World Geodetic System 1984)**

	<i>Turning point</i>	<i>Latitude North</i>	<i>Longitude West</i>
Part A	1	14.00000	134.00000
	2	13.58010	133.83300
	3	13.50000	133.83300
	4	13.50000	134.75000
	5	13.18000	134.75000
	6	13.18000	135.07000
	7	12.73000	135.07000
	8	12.73000	134.89000
	9	12.37000	134.89000
	10	12.37000	135.44000
	11	12.10000	135.44000
	12	12.10000	135.89000
	13	12.23000	135.89000
	14	12.23000	136.77000
	15	12.12500	136.77000
	16	12.12500	137.34600
	17	11.20000	137.34600
	18	11.20000	136.58000
	19	10.83330	136.58000
	20	10.83330	137.50000
	21	9.98330	137.50000
	22	9.98330	136.83300
	23	9.61000	136.83300
	24	9.61000	138.62500
	25	9.87500	138.62500
	26	9.87500	138.87500
	27	10.12500	138.87500
	28	10.12500	138.62500
	29	10.83330	138.62500
	30	10.83330	138.37400
	31	11.63330	138.37400
	32	11.63330	137.83330
	33	12.50000	137.83330
	34	12.50000	136.00000
	35	13.50000	136.00000

	<i>Turning point</i>	<i>Latitude North</i>	<i>Longitude West</i>
	36	13.50000	137.42000
	37	13.84000	137.42000
	38	13.84000	134.00000
Part B	1	13.18000	134.75000
	2	11.50000	134.75000
	3	11.50000	133.83333
	4	11.66667	133.83333
	5	11.66667	133.66667
	6	11.00000	133.66667
	7	11.00000	133.50000
	8	10.50000	133.50000
	9	10.50000	132.58333
	10	10.03333	132.58333
	11	10.03333	133.16667
	12	9.79750	133.16667
	13	9.79750	134.12930
	14	10.98000	134.12930
	15	10.98000	135.00000
	16	11.25000	135.00000
	17	11.25000	135.33333
	18	10.83333	135.33333
	19	10.83333	135.25000
	20	10.66667	135.25000
	21	10.66667	134.56800
	22	10.09967	134.56800
	23	10.09967	135.25000
	24	9.61000	135.25000
	25	9.61000	136.00000
	26	10.50000	136.00000
	27	10.50000	135.83333
	28	10.33333	135.83333
	29	10.33333	135.41667
	30	10.45000	135.41667
	31	10.45000	135.33333
	32	10.66667	135.33333
	33	10.66667	135.50000
	34	10.83333	135.50000
	35	10.83333	135.75000
	36	10.91667	135.75000
	37	10.91667	136.00000

<i>Turning point</i>	<i>Latitude North</i>	<i>Longitude West</i>
38	10.83330	136.00000
39	10.83330	136.58000
40	11.20000	136.58000
41	11.20000	137.34600
42	12.12500	137.34600
43	12.12500	136.77000
44	12.23000	136.77000
45	12.23000	135.89000
46	12.10000	135.89000
47	12.10000	135.44000
48	12.37000	135.44000
49	12.37000	134.89000
50	12.73000	134.89000
51	12.73000	135.07000
52	13.18000	135.07000

**B. Map of the general location of the proposed reserved area (part B) and exploration area (part A)**





## Council

Distr.: General  
25 February 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application by the Government of India for the approval of a plan of work for exploration for polymetallic sulphides**

#### **I. Introduction**

1. On 26 March 2013, the Secretary-General of the International Seabed Authority received an application for the approval of a plan of work for exploration for polymetallic sulphides in the Area. The application was submitted pursuant to the Regulations on prospecting and exploration for polymetallic sulphides in the Area ([ISBA/16/A/12/Rev.1](#), annex, “the Regulations”) by the Government of India.

2. On 11 April 2013, in accordance with regulation 22 (c) of the Regulations, the Secretary-General issued a note verbale by which he notified the members of the Authority of the receipt of the application and circulated information of a general nature concerning the application. The Secretary-General also placed consideration of the application as an item on the agenda of the meeting of the Legal and Technical Commission held from 8 to 15 July 2013.

#### **II. Methodology and consideration of the application by the Legal and Technical Commission**

##### **A. General methodology applied by the Commission in consideration of the application**

3. In its consideration of the application, the Commission noted that, in keeping with the scheme established in article 6 of annex III to the United Nations Convention on the Law of the Sea, it was first required to make an objective determination as to whether the applicant had fulfilled the requirements contained in the Regulations, particularly with respect to the form of applications; whether the



applicant had provided the necessary undertakings and assurances specified in regulation 15 of the Regulations; and whether it had the necessary financial and technical capability to carry out the proposed plan of work for exploration and, as appropriate, had satisfactorily discharged its obligations under any previous contract with the Authority. The Commission is then required to determine, in accordance with regulation 23, paragraph 4, of the Regulations and its procedures, whether the proposed plan of work will provide for effective protection of human health and safety, effective protection and preservation of the marine environment, and will ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity. Regulation 23, paragraph 5, of the Regulations goes on to provide that “If the Commission makes the determinations specified in paragraph 3 and determines that the proposed plan of work for exploration meets the requirements of paragraph 4, the Commission shall recommend approval of the plan of work for exploration to the Council”.

4. In considering the proposed plan of work for exploration for polymetallic sulphides, the Commission took into account the principles, policies and objectives relating to activities in the Area as provided for in Part XI and annex III of the Convention and in the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982.

## **B. Consideration of the application**

5. The Commission considered the application in closed meetings on 9 and 11 July 2013 during the nineteenth session, and on 4 and 6 February 2014 during the twentieth session.

6. Prior to commencing a detailed examination of the application, the Commission invited the applicant’s designated representative, the Chairman of the Earth System Science Organization and Secretary of the Ministry of Earth Sciences, Shailesh Nayak, accompanied by the Director of the National Centre for Antarctic and Ocean Research, S. Rajan, and the High Commissioner of India to Jamaica, H.E. Pratap Singh, to make a presentation of the application. Members of the Commission then asked questions with a view to clarifying certain aspects of the application before convening in closed session to examine the application in detail. Following its initial consideration, the Commission also decided to request the Chair of the Commission to transmit a list of questions to the applicant in writing through the Secretary-General. Responses were received from the applicant; however the Commission did not have sufficient time to complete consideration of the application. It decided to defer consideration of the application to its next meeting, in February 2014, at which it would be taken up as a matter of priority.



### **III. Summary of basic information regarding the application**

#### **A. Identification of the applicant**

7. The name and address of the applicant are as follows:

(a) Name: Earth System Science Organization, Ministry of Earth Sciences, Government of India;

(b) Street address: Ministry of Earth Sciences, Prithvi Bhavan, Lodi Road, New Delhi — 110003, India;

(c) Postal address: same as above;

(d) Telephone number: +91-11-24629771-2;

(e) Fax Number: +91-11-24629777;

(f) E-mail address: secretary@moes.gov.in

8. The applicant's designated representative is:

(a) Name: Shailesh Nayak, Chairman, Earth System Science Organization, Secretary to the Government of India, Ministry of Earth Sciences;

(b) Street address: same as above;

(c) Postal address: same as above;

(d) Telephone number: same as above;

(e) Fax number: same as above;

(f) E-mail address: same as above.

9. The applicant is a State party to the Convention.

10. The date of deposit by India of the instrument of ratification of the United Nations Convention on the Law of the Sea is 29 June 1995; the date of ratification of the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 is 29 June 1995.

#### **B. Area of application**

11. The area under application is located in the Central Indian Ocean and forms part of the Indian Ocean ridge. It consists of 100 blocks measuring approximately 10 km by 10 km each, but not exceeding 100 km<sup>2</sup>. The blocks are grouped into five clusters, each containing from 15 to 30 blocks. The application area is confined within a rectangular area not exceeding 300,000 km<sup>2</sup> in size and where the longest side does not exceed 1,000 km. The coordinates and general location of the area under application are shown in the annex to the present document. The application area is in the international seabed area.

### **C. Other information**

12. The applicant has been previously awarded a contract with the Authority as follows:

(a) The Government of India and the Authority signed a contract for exploration for polymetallic nodules in the Area on 25 March 2002;

(b) The reports submitted to the Authority in connection with the contract for exploration for polymetallic nodules are listed in the application;

(c) The date of expiration of the contract is 24 March 2017.

13. The applicant attached a written undertaking signed by the applicant's designated representative, in compliance with regulation 15 of the Regulations.

14. The applicant elects to offer an equity interest in a joint venture arrangement in accordance with regulation 19 of the Regulations.

15. The applicant has paid a fee of \$500,000 in accordance with regulation 21, paragraph 1 (a) of the Regulations.

### **IV. Examination of information and technical data submitted by the applicant**

16. The following technical documents and information were submitted in the application:

(a) Information relating to the area under application:

(i) Charts of the location of the clusters and blocks;

(ii) A list of the coordinates of the corners of 100 blocks under application;

(b) A certificate of sponsorship;

(c) Information to enable the Council to determine whether the applicant is financially capable of carrying out the proposed plan of work for exploration;

(d) Information to enable the Council to determine whether the applicant is technically capable of carrying out the proposed plan of work for exploration, including previous experience and expertise developed;

(e) Plan of work for exploration;

(f) Training programmes;

(g) Written undertakings by the applicant;

(h) Previous contracts.

## **V. Consideration of financial and technical qualifications of the applicant**

### **A. Financial capacity**

17. The Commission noted that the applicant provided a statement signed by its designated representative by which the applicant commits to undertaking all its responsibilities as prescribed in regulation 15 of the Regulations. The applicant stated that the necessary funds required for implementation of the proposed plan of work would be made available. The applicant committed to meeting its financial obligations to the Authority.

### **B. Technical capacity**

18. The Commission noted that the applicant referred to the experience gained as a pioneer investor and a contractor exploring nodules. The proposed activities are scheduled in three five-year phases and will include mapping, geological sampling and environmental baseline data collection and assessment. Activities related to resource assessment and environmental baseline studies will be carried out concurrently. The objectives are to analyse and evaluate the collected data in order to make relinquishments in accordance with the Regulations, to identify and select promising blocks and clusters for hydrothermal sulphide mineralization, and to establish environmental baselines. The programme for oceanographic and environmental baseline studies will be conducted in active and inactive hydrothermal sites in the area under application. During the initial phase, the proposed exploration activities will aim at surveying the seabed and sub-seabed morphology, structural characteristics and location of hydrothermal fields in and around the proposed exploration area. During the last five-year phase, the applicant proposes to undertake a pilot study to evaluate the impact on the environment of exploration activities, such as dredging, core drilling and box coring. The applicant also provided details on the equipment and instruments that will be used, together with a yearly schedule of survey and exploration, and environmental baseline data collection and assessment for the immediate five-year programme of activities.

19. The applicant stated that the proposed exploration activities were unlikely to create any serious disturbance on the seafloor and on the water column immediately above the seafloor. Those activities were classified as activities not requiring an environmental impact assessment by the Commission. However, applying a precautionary approach, the applicant would undertake a programme of oceanographic and environmental baseline studies over the three five-year phases of the plan of work, in order to assess any local disturbance that may be caused by sampling.

20. The parameters evaluated under the baseline environmental study would also be repeated during the entire 15-year period, in order to assess any effects on the watercolumn and benthic environment. This programme would aim at establishing environmental baselines, conducting monitoring programmes and assessing possible impacts of activities at both active and dormant hydrothermal sites in the area under application. The studies would cover both benthic and pelagic environments, including microbial components. The first ten years would focus on the collection of

baseline oceanographic and environmental data and at the end of the tenth year, the applicant would identify impact reference zones and preservation reference zones. The impact reference zones may be identified on the representativeness of environmental characteristics, including the biota, of the area to be subject to disturbances during exploration, particularly areas that are earmarked for physical sampling of rocks, sediments and minerals through dredging, coring, grab, etc. The preservation reference zones may be large enough in order not to be affected by the natural variations of local environmental conditions. Such an area was envisaged to be outside the sampling-induced disturbances area. During the last five-year phase, the applicant would carry out specific environmental impact studies in the identified impact reference zones after completion of sampling. The applicant would provide all data in a standardized format to the Authority. Applying a precautionary approach, the applicant would evaluate any impact caused by the oxidization of minerals collected during exploration.

21. The applicant provided information related to the prevention, reduction and control of hazards and possible impacts to the marine environment in the short and long term. That included the creation of a system for pollution and other hazard assessment, the conduct of harm assessment, the development of an emergency action plan and the constitution of a system of notification and information with a central crisis group and a crisis alert system, and the establishment of a support system for the adoption of decisions in emergency situations.

## **VI. Consideration of data and information submitted for approval of the plan of work for exploration**

22. In accordance with regulation 20 of the Regulations, the applicant submitted the following information for approval of the plan of work for exploration:

(a) A general description and schedule of the proposed exploration programme, including the programme of activities for the immediate five-year period;

(b) A description of the programme for oceanographic and environmental baseline studies in accordance with the Regulations and any environmental rules, regulations and procedures established by the Authority that would enable an assessment of the potential environmental impact, including, but not restricted to, the impact on biodiversity of the proposed exploration activities, taking into account any recommendations issued by the Legal and Technical Commission;

(c) A preliminary assessment of the possible impact of the proposed exploration activities on the marine environment;

(d) A description of proposed measures for the prevention, reduction and control of pollution and other hazards, as well as possible impacts, to the marine environment;

(e) Data necessary for the Council to make the determination, as required by regulation 13, paragraph 1;

(f) A schedule of anticipated yearly expenditures in respect of the programme of activities for the immediate five-year period.

## VII. Training programmes

23. The applicant proposed to offer training opportunities for three trainees. This would take place on board its research vessels and at three of its scientific institutions, namely: the National Centre for Antarctic and Ocean Research in Goa; the National Institute of Ocean Technology, in Chennai; and the Indian National Centre for Ocean Information Services, in Hyderabad. The applicant stated that, in accordance with regulation 29 and section 8 of annex 4 to the Regulations, the contractor would draw up detailed training programmes in consultation and cooperation with the Authority. The Commission emphasized that the applicant and the Secretary-General, in developing the training programmes, should ensure that they were in line with the Recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration, as developed by the Commission during its nineteenth session ([ISBA/19/LTC/14](#)).

## VIII. Conclusion and recommendations

24. Having examined the particulars submitted by the applicant, summarized in sections III to VII above, the Commission is satisfied that the application has been duly submitted in accordance with the Regulations and that the applicant is a qualified applicant within the meaning of annex III, article 4, of the Convention. The Commission is further satisfied that the applicant:

- (a) Has complied with the provisions of the Regulations;
- (b) Has given the undertakings and assurances specified in regulation 15 of the Regulations;
- (c) Possesses the financial and technical capability to carry out the proposed plan of work for exploration.

25. The Commission states that none of the conditions in regulation 23, paragraph 6 of the Regulations apply.

26. With respect to the proposed plan of work for exploration, the Commission is satisfied that the proposed plan of work for exploration will:

- (a) Provide for effective protection of human health and safety;
- (b) Provide for effective protection and preservation of the marine environment;
- (c) Ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity.

27. Accordingly, pursuant to regulation 23, paragraph 5, the Commission recommends to the Council approval of the plan of work for exploration for polymetallic sulphides submitted by the Government of India.

## Annex I

### A. List of coordinates of the area under application in decimal degrees following the World Geodetic System 1984 geographical projection system

#### Cluster A

<i>Block Number</i>	<i>Longitude E</i>	<i>Latitude S</i>
1	69.50222068	22.99760244
	69.50222068	23.08821326
	69.59985794	23.08821326
	69.59985794	22.99760244
2	69.40458174	23.08821326
	69.40458174	23.17826241
	69.50222068	23.17826241
	69.50222068	23.08821326
3	69.50222068	23.08821326
	69.50222068	23.17826241
	69.59985794	23.17826241
	69.59985794	23.08821326
4	69.20944032	23.17826241
	69.20944032	23.26909546
	69.30714708	23.26909546
	69.30714708	23.17826241
5	69.30714708	23.17826241
	69.30714708	23.26909546
	69.40458174	23.26909546
	69.40458174	23.17826241
6	69.40458174	23.17826241
	69.40458174	23.26909546
	69.50222068	23.26909546
	69.50222068	23.17826241
7	69.50222068	23.17826241
	69.50222068	23.26909546
	69.59985794	23.26909546
	69.59985794	23.17826241
8	69.01403446	23.26909546
	69.01403446	23.35968723
	69.11180804	23.35968723
	69.11180804	23.26909546

<i>Block Number</i>	<i>Longitude E</i>	<i>Latitude S</i>
9	69.11180804	23.26909546
	69.11180804	23.35968723
	69.20944032	23.35968723
	69.20944032	23.26909546
10	69.20944032	23.26909546
	69.20944032	23.35968723
	69.30714708	23.35968723
	69.30714708	23.26909546
11	69.30714708	23.26909546
	69.30714708	23.35968723
	69.40458174	23.35968723
	69.40458174	23.26909546
12	69.40458174	23.26909546
	69.40458174	23.35968723
	69.50222068	23.35968723
	69.50222068	23.26909546
13	69.50222068	23.26909546
	69.50222068	23.35968723
	69.59985794	23.35968723
	69.59985794	23.26909546
14	69.01403446	23.35968723
	69.01403446	23.45001688
	69.11180804	23.45001688
	69.11180804	23.35968723
15	69.11180804	23.35968723
	69.11180804	23.45001688
	69.20944032	23.45001688
	69.20944032	23.35968723
16	69.20944032	23.35968723
	69.20944032	23.45001688
	69.30714708	23.45001688
	69.30714708	23.35968723
17	69.30714708	23.35968723
	69.30714708	23.45001688
	69.40458174	23.45001688
	69.40458174	23.35968723
18	69.40458174	23.35968723
	69.40458174	23.45001688
	69.50222068	23.45001688

<i>Block Number</i>	<i>Longitude E</i>	<i>Latitude S</i>
	69.50222068	23.35968723
19	69.50222068	23.35968723
	69.50222068	23.45001688
	69.59985794	23.45001688
	69.59985794	23.35968723
20	69.01403446	23.45001688
	69.01403446	23.54019250
	69.11180804	23.54019250
	69.11180804	23.45001688
21	69.11180804	23.45001688
	69.11180804	23.54019250
	69.20944032	23.54019250
	69.20944032	23.45001688
22	69.20944032	23.45001688
	69.20944032	23.54019250
	69.30714708	23.54019250
	69.30714708	23.45001688
23	69.30714708	23.45001688
	69.30714708	23.54019250
	69.40458174	23.54019250
	69.40458174	23.45001688
24	69.40458174	23.45001688
	69.40458174	23.54019250
	69.50222068	23.54019250
	69.50222068	23.45001688
25	69.50222068	23.45001688
	69.50222068	23.54019250
	69.59985794	23.54019250
	69.59985794	23.45001688
26	69.01403446	23.54019250
	69.01403446	23.63021861
	69.11180804	23.63021861
	69.11180804	23.54019250
27	69.11180804	23.54019250
	69.11180804	23.63021861
	69.20944032	23.63021861
	69.20944032	23.54019250
28	69.20944032	23.54019250
	69.20944032	23.63021861
	69.30714708	23.63021861



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<i>Block Number</i>	<i>Longitude E</i>	<i>Latitude S</i>
	69.30714708	23.54019250
29	69.30714708	23.54019250
	69.30714708	23.63021861
	69.40458174	23.63021861
	69.40458174	23.54019250
30	69.40458174	23.54019250
	69.40458174	23.63021861
	69.50222068	23.63021861
	69.50222068	23.54019250

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**Cluster B**

<i>Block Number</i>	<i>Longitude E</i>	<i>Latitude S</i>
31	69.80937441	24.72886074
	69.80937441	24.81859711
	69.90834694	24.81859711
	69.90834694	24.72886074
32	69.90834694	24.72886074
	69.90834694	24.81859711
	70.00728649	24.81859711
	70.00728649	24.72886074
33	70.00728649	24.72886074
	70.00728649	24.81859711
	70.10622249	24.81859711
	70.10622249	24.72886074
34	69.80937441	24.81859711
	69.80937441	24.90889827
	69.90834694	24.90889827
	69.90834694	24.81859711
35	69.90834694	24.81859711
	69.90834694	24.90889827
	70.00728649	24.90889827
	70.00728649	24.81859711
36	70.00728649	24.81859711
	70.00728649	24.90889827
	70.10622249	24.90889827
	70.10622249	24.81859711
37	69.80937441	24.90889827
	69.80937441	24.99919833
	69.90834694	24.99919833
	69.90834694	24.90889827
38	69.90834694	24.90889827
	69.90834694	24.99919833
	70.00728649	24.99919833
	70.00728649	24.90889827
39	70.00728649	24.90889827
	70.00728649	24.99919833
	70.10622249	24.99919833
	70.10622249	24.90889827
40	69.80937441	24.99919833
	69.80937441	25.08949727
	69.90834694	25.08949727

<i>Block Number</i>	<i>Longitude E</i>	<i>Latitude S</i>
	69.90834694	24.99919833
41	69.90834694	24.99919833
	69.90834694	25.08949727
	70.00728649	25.08949727
	70.00728649	24.99919833
42	70.00728649	24.99919833
	70.00728649	25.08949727
	70.10622249	25.08949727
	70.10622249	24.99919833
43	69.80937441	25.08949727
	69.80937441	25.17979509
	69.90834694	25.17979509
	69.90834694	25.08949727
44	69.90834694	25.08949727
	69.90834694	25.17979509
	70.00728649	25.17979509
	70.00728649	25.08949727
45	70.00728649	25.08949727
	70.00728649	25.17979509
	70.10622249	25.17979509
	70.10622249	25.08949727
46	69.80937441	25.17979509
	69.80937441	25.27009180
	69.90834694	25.27009180
	69.90834694	25.17979509
47	69.90834694	25.17979509
	69.90834694	25.27009180
	70.00728649	25.27009180
	70.00728649	25.17979509
48	70.00728649	25.17979509
	70.00728649	25.27009180
	70.10622249	25.27009180
	70.10622249	25.17979509
49	69.80937441	25.27009180
	69.80937441	25.36038739
	69.90834694	25.36038739
	69.90834694	25.27009180
50	69.90834694	25.27009180
	69.90834694	25.36038739
	70.00728649	25.36038739
	70.00728649	25.27009180

## Cluster C

<i>Block Number</i>	<i>Longitude E</i>	<i>Latitude S</i>
51	67.78652639	26.19113583
	67.78652639	26.28111250
	67.88547806	26.28111250
	67.88547806	26.19113583
52	67.68723944	26.28111250
	67.68723944	26.37048472
	67.78652639	26.37048472
	67.78652639	26.28111250
53	67.78652639	26.28111250
	67.78652639	26.37048472
	67.88547806	26.37048472
	67.88547806	26.28111250
54	67.48283889	26.37048472
	67.48283889	26.45899833
	67.58312083	26.45899833
	67.58312083	26.37048472
55	67.58312083	26.37048472
	67.58312083	26.45899833
	67.68723944	26.45899833
	67.68723944	26.37048472
56	67.37801806	26.45899833
	67.37801806	26.54594917
	67.48283889	26.54594917
	67.48283889	26.45899833
57	67.48283889	26.45899833
	67.48283889	26.54594917
	67.58312083	26.54594917
	67.58312083	26.45899833
58	67.17672361	26.54594917
	67.17672361	26.63737917
	67.27626694	26.63737917
	67.27626694	26.54594917
59	67.27626694	26.54594917
	67.27626694	26.63737917
	67.37801806	26.63737917
	67.37801806	26.54594917
60	67.07725139	26.63737917
	67.07725139	26.72386611

<i>Block Number</i>	<i>Longitude E</i>	<i>Latitude S</i>
	67.17672361	26.72386611
	67.17672361	26.63737917
61	66.87460750	26.72386611
	66.87460750	26.81122611
	66.97676528	26.81122611
	66.97676528	26.72386611
62	66.97676528	26.72386611
	66.97676528	26.81122611
	67.07725139	26.81122611
	67.07725139	26.72386611
63	66.7781825	26.81122611
	66.7781825	26.90293194
	66.8746075	26.90293194
	66.8746075	26.81122611
64	66.87460750	26.81122611
	66.87460750	26.90293194
	66.97676528	26.90293194
	66.97676528	26.81122611
65	66.7781825	26.90293194
	66.7781825	26.99733972
	66.8746075	26.99733972
	66.8746075	26.90293194

## Cluster D

<i>Block Number</i>	<i>Longitude E</i>	<i>Latitude S</i>
66	67.98350278	26.55269250
	67.98350278	26.64296917
	68.08388556	26.64296917
	68.08388556	26.55269250
67	68.08388556	26.55269250
	68.08388556	26.64296917
	68.18363139	26.64296917
	68.18363139	26.55269250
68	67.78179333	26.64296917
	67.78179333	26.73393111
	67.88136611	26.73393111
	67.88136611	26.64296917
69	67.88136611	26.64296917
	67.88136611	26.73393111
	67.98350278	26.73393111
	67.98350278	26.64296917
70	67.98350278	26.64296917
	67.98350278	26.73393111
	68.08388556	26.73393111
	68.08388556	26.64296917
71	68.08388556	26.64296917
	68.08388556	26.73393111
	68.18363139	26.73393111
	68.18363139	26.64296917
72	67.57978167	26.73393111
	67.57978167	26.82102417
	67.67926083	26.82102417
	67.67926083	26.73393111
73	67.67926083	26.73393111
	67.67926083	26.82102417
	67.78179333	26.82102417
	67.78179333	26.73393111
74	67.78179333	26.73393111
	67.78179333	26.82102417
	67.88136611	26.82102417
	67.88136611	26.73393111
75	67.88136611	26.73393111
	67.88136611	26.82102417

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<i>Block Number</i>	<i>Longitude E</i>	<i>Latitude S</i>
	67.98350278	26.82102417
	67.98350278	26.73393111
76	67.47685167	26.82102417
	67.47685167	26.91030917
	67.57978167	26.91030917
	67.57978167	26.82102417
77	67.57978167	26.82102417
	67.57978167	26.91030917
	67.67926083	26.91030917
	67.67926083	26.82102417
78	67.67926083	26.82102417
	67.67926083	26.91030917
	67.77986861	26.91030917
	67.77986861	26.82102417
79	67.47685167	26.91030917
	67.47685167	27.00056778
	67.57978167	27.00056778
	67.57978167	26.91030917
80	67.57978167	26.91030917
	67.57978167	27.00056778
	67.67926083	27.00056778
	67.67926083	26.91030917

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## Cluster E

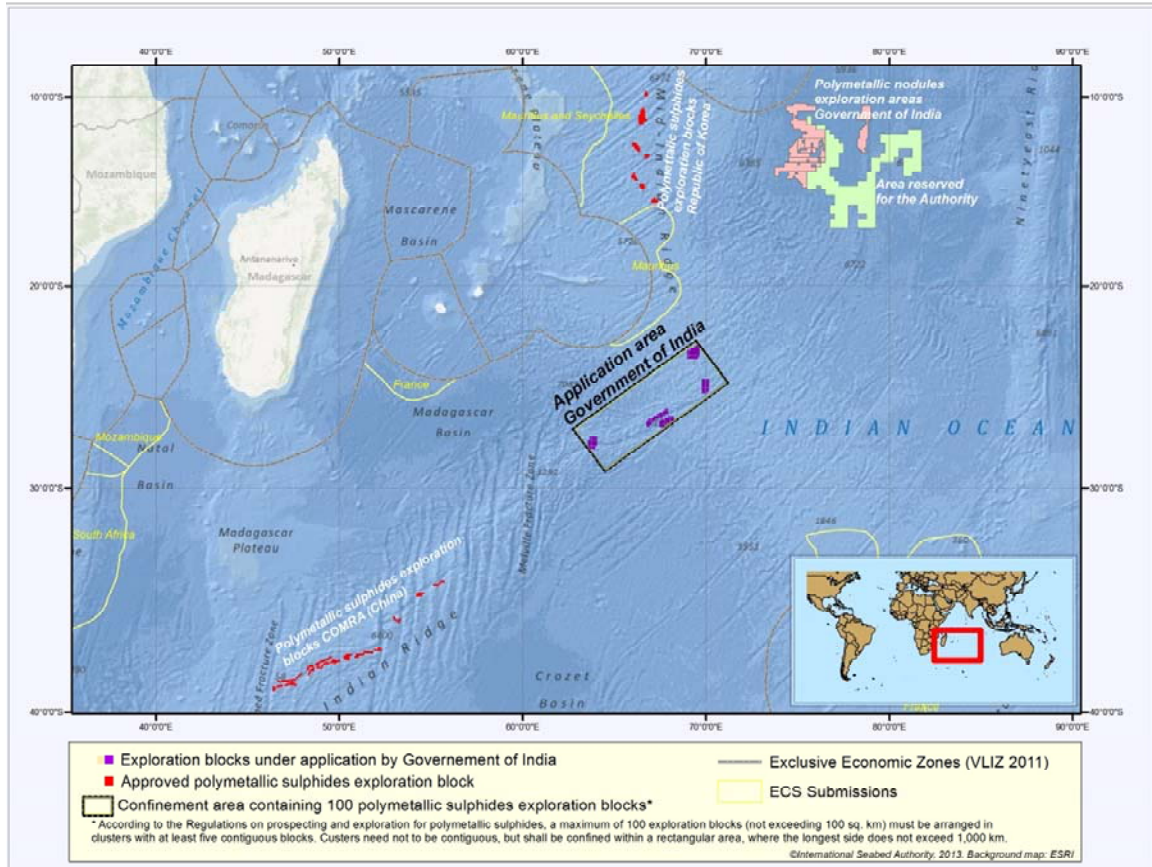
<i>Block Number</i>	<i>Longitude E</i>	<i>Latitude S</i>
81	63.70251417	27.56996528
	63.70251417	27.65968528
	63.80447111	27.65968528
	63.80447111	27.56996528
82	63.80447111	27.56996528
	63.80447111	27.65968528
	63.90584889	27.65968528
	63.90584889	27.56996528
83	63.90584889	27.56996528
	63.90584889	27.65968528
	64.00722333	27.65968528
	64.00722333	27.56996528
84	63.70251417	27.65968528
	63.70251417	27.75050667
	63.80447111	27.75050667
	63.80447111	27.65968528
85	63.80447111	27.65968528
	63.80447111	27.75050667
	63.90584889	27.75050667
	63.90584889	27.65968528
86	63.90584889	27.65968528
	63.90584889	27.75050667
	64.00722333	27.75050667
	64.00722333	27.65968528
87	63.60220250	27.75050667
	63.60220250	27.84077528
	63.70251417	27.84077528
	63.70251417	27.75050667
88	63.70251417	27.75050667
	63.70251417	27.84077528
	63.80447111	27.84077528
	63.80447111	27.75050667
89	63.80447111	27.75050667
	63.80447111	27.84077528
	63.90584889	27.84077528
	63.90584889	27.75050667
90	63.90584889	27.75050667
	63.90584889	27.84077528
	64.00722333	27.84077528



<i>Block Number</i>	<i>Longitude E</i>	<i>Latitude S</i>
	64.00722333	27.75050667
91	63.60220250	27.84077528
	63.60220250	27.93104306
	63.70251417	27.93104306
	63.70251417	27.84077528
92	63.70251417	27.84077528
	63.70251417	27.93104306
	63.80447111	27.93104306
	63.80447111	27.84077528
93	63.80447111	27.84077528
	63.80447111	27.93104306
	63.90584889	27.93104306
	63.90584889	27.84077528
94	63.90584889	27.84077528
	63.90584889	27.93104306
	64.00722333	27.93104306
	64.00722333	27.84077528
95	63.60220250	27.93104306
	63.60220250	28.02130944
	63.70251417	28.02130944
	63.70251417	27.93104306
96	63.70251417	27.93104306
	63.70251417	28.02130944
	63.80447111	28.02130944
	63.80447111	27.93104306
97	63.80447111	27.93104306
	63.80447111	28.02130944
	63.90584889	28.02130944
	63.90584889	27.93104306
98	63.60220250	28.02130944
	63.60220250	28.11157472
	63.70251417	28.11157472
	63.70251417	28.02130944
99	63.70251417	28.02130944
	63.70251417	28.11157472
	63.80447111	28.11157472
	63.80447111	28.02130944
100	63.80447111	28.02130944
	63.80447111	28.11157472
	63.90584889	28.11157472
	63.90584889	28.02130944

Annex II

Map of the general location of the area under application





## Council

Distr.: General  
25 February 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Report and recommendations to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration by Ocean Mineral Singapore Pte Ltd**

#### **I. Introduction**

1. On 19 April 2013, the Secretary-General of the International Seabed Authority received an application for the approval of a plan of work for exploration for polymetallic nodules in a reserved area. The application was submitted pursuant to the Regulations on prospecting and exploration for polymetallic nodules in the Area (ISBA/6/A/18, annex, “the Regulations”) by Ocean Mineral Singapore Pte Ltd. (OMS). The reserved area within the application was contributed by UK Seabed Resources Ltd. (UKSRL) pursuant to annex III, article 8, of the 1982 United Nations Convention on the Law of the Sea (the Convention).

2. On 24 April 2013, in accordance with regulation 20 (c) of the Regulations, the Secretary-General issued a note verbale by which he notified the members of the Authority of the receipt of the application and circulated general information concerning it. The Secretary-General also placed consideration of the application as an item on the agenda of the meeting of the Legal and Technical Commission held from 8 to 15 July 2013.

#### **II. Methodology for consideration of the application by the Legal and Technical Commission**

##### **A. General methodology applied by the Commission in consideration of the application**

3. In its consideration of the application, the Commission noted that, in keeping with the scheme established in article 6 of annex III to the Convention, it was first required to make an objective determination as to whether the applicant had fulfilled the requirements contained in the Regulations, particularly with respect to the form



of applications; whether the applicant had provided the necessary undertakings and assurances specified in regulation 14 of the Regulations; and whether it had the necessary financial and technical capability to carry out the proposed plan of work for exploration and, as appropriate, had satisfactorily discharged its obligations under any previous contract with the Authority. The Commission is then required to determine, in accordance with regulation 21, paragraph 4, of the Regulations and its procedures, whether the proposed plan of work will provide for effective protection of human health and safety, effective protection and preservation of the marine environment, and will ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity. Regulation 21, paragraph 5, of the Regulations goes on to provide that “If the Commission makes the determinations specified in paragraph 3 and determines that the proposed plan of work for exploration meets the requirements of paragraph 4, the Commission shall recommend approval of the plan of work for exploration to the Council.”

4. In considering the proposed plan of work for exploration for polymetallic nodules, the Commission took into account the principles, policies and objectives relating to activities in the Area as provided for in Part XI and annex III of the Convention and in the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea adopted in 1994 (“the Agreement”).

## **B. Consideration of the application**

5. The Commission considered the application in closed meetings on 10 and 11 July 2013 during the nineteenth session and on 4 and 6 February 2014 during the twentieth session.

6. Prior to commencing a detailed examination of the application, the Commission invited the head of delegation, Tommy Koh, Ambassador-at-large, and the designated representative of the applicant, Ye Kung Ong, Director of OMS, accompanied by Aziz Merchant, Director of OMS, and Charles Morgan, Adviser to OMS, to make a presentation of the application. Members of the Commission then asked questions in order to clarify certain aspects of the application before convening in closed session to examine the application in detail. Following its initial consideration, the Commission also decided to request its Chair to transmit a list of questions to the applicant in writing through the Secretary-General. Responses were received from the applicant; however the Commission did not have sufficient time to complete consideration of the application. It decided to defer consideration of it, to be taken up as a matter of priority at its next meeting in February 2014.

## **III. Summary of basic information regarding the application**

### **A. Identification of the applicant**

7. Name of applicant: Ocean Mineral Singapore Pte Ltd. (OMS).

8. Address of applicant:
  - (a) Street address: 1 Harbour Front Avenue, #18-01 Keppel Bay Tower, Singapore 098632
  - (b) Postal address: same as above.
  - (c) Telephone number: +65 6270 6666
  - (d) Facsimile number: +65 6413 6344
  - (e) E-mail address: none
9. Designated representative of the applicant:
  - (a) Name: Ye Kung Ong
  - (b) Street address: same as above.
  - (c) Telephone number: same as above.
  - (d) Facsimile number: same as above.
  - (e) E-mail address: yekung.ong@kepcorp.com / ee.tan@kepcorp.com
  - (f) Applicant's place of registration and principal place of business: 1 Harbour Front Avenue, #18-01 Keppel Bay Tower, Singapore 098632.

10. The applicant states that OMS is a subsidiary of Keppel Corporation Limited (KCL) which holds 78.1 per cent of the outstanding share capital of OMS. KCL is managed by, and has a board of directors that includes, Singaporean citizens. Both OMS and KCL are companies incorporated and based in Singapore. A copy of the certificate of incorporation of OMS has been submitted. The applicant stated that it had invited UKSRL to be a minority, non-controlling, shareholder. The Commission noted that any changes in the corporate structure, including shareholding, would be reported to the Secretary-General.

## **B. Sponsorship**

11. Sponsoring State: Republic of Singapore.
12. The date of deposit of Singapore's instrument of ratification of the Convention and of its consent to be bound by the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 is 17 November 1994.
13. The date of certificate of sponsorship is 28 February 2013, signed by the Minister for Trade and Industry, Lim Hng Kiang.
14. The certificate of sponsorship states that the applicant is a duly incorporated and registered corporation under the laws of Singapore and, as such, is a national of Singapore and is subject to the effective control of Singapore. The sponsoring State assumes responsibility in accordance with article 139, article 153, paragraph 4, and annex III, article 4, paragraph 4, of the Convention. In a letter dated 19 April 2013 addressed to the Secretary-General and included in the application, the applicant indicated that, in line with the sponsoring State's long-standing commitment to environmental stewardship and safety and the advisory opinion rendered on 1 February 2011 by the Seabed Disputes Chamber of the International Tribunal for

the Law of the Sea, the sponsoring State is planning to develop and enact domestic mining legislation and to regulate OMS based on the domestic legislations, once OMS enters into a contract with the Authority.

### **C. Area of application**

15. The area under application covers a surface area of 58,280 km<sup>2</sup> in the eastern part in the Clarion-Clipperton Zone in the Pacific Ocean. This is the reserved area contributed by UK Seabed Resources Ltd. (UKSRL). The area under application is adjacent to the UKSRL area under exploration contract.

### **D. Other information**

16. In accordance with regulation 14 of the Regulations, the application includes a written undertaking dated 19 April 2013 and signed by the applicant's designated representative.

17. The applicant has paid a fee of \$500,000, in accordance with regulation 19 of the Regulations.

## **IV. Examination of information and technical data submitted by the applicant**

18. The following technical documents were submitted in the application:

(a) Information relating to the application area:

(i) Boundaries of the area under application by a list of geographic coordinates in accordance with the World Geodetic System 1984 (WGS 84);

(ii) Chart of the area under application.

(b) Information to enable the Council to determine whether the applicant is financially capable of carrying out the proposed plan of work for exploration;

(c) Information to enable the Council to determine whether the applicant is technically capable of carrying out the proposed plan of work for exploration;

(d) Plan of work for exploration;

(e) Training programmes.

## **V. Consideration of financial and technical qualifications of the applicant**

### **A. Financial capacity**

19. In evaluating the financial capacity of the applicant, the Commission noted that the applicant provided a certified pro forma balance sheet. The applicant also submitted copies of audited consolidated financial statements of Keppel Corporation

Limited, the applicant's parent company. The applicant further provided a statement to the effect that it had the necessary financial resources to meet the estimated costs of the proposed plan of work for exploration. The statement also indicated that the applicant's parent company would provide funding support, be it direct or indirect, to the applicant for the implementation of the proposed plan of work for exploration for polymetallic nodules.

## **B. Technical capacity**

20. The Commission was provided with technical information in relation to the capabilities of the parent company, including its offshore and marine capabilities. The applicant also indicated that a key partner would be the Tropical Marine Science Institute of the National University of Singapore which has expertise in biodiversity and environmental research, including environmental impact assessment and monitoring. The applicant would also benefit from the experience in the marketing and risk management of commodities of its minority shareholder, Lion City Capital Partners Pte Ltd., which holds 2 per cent of the applicant's shares. The applicant also stated that it would leverage on the technical competencies of UKSRL, which it had invited to be a minority, non-controlling, shareholder. Given the fact that the area under application and the area under UKSRL exploration contract are adjacent and constitute an ecological and geological continuum, the applicant intends to collaborate with UKSRL for the execution of the proposed plan of work for exploration. Both the applicant and UKSRL see advantages to collaborating on their respective exploration plans of work, such as leveraging the shared data and results, equipment and resources, including through multipurpose cruises, and note that the area under application is the reserved area surrendered by UKSRL. The applicant stated that this was common practice in the oil and gas industry. The Commission noted that the applicant contemplated entering into a management services agreement with UKSRL (or its affiliate) or failing that, entering into a similar exploration services agreement with a third party, to carry out the proposed plan of work for exploration for the area under application. The applicant stated that the commencement of the proposed plan of work was therefore subject to entry into the management services agreement between the applicant and UKSRL (or its affiliate) or failing that, entry into a similar exploration services agreement with a third party.

21. The applicant provided details of environmental baseline studies and survey activities which are the two main activities to be performed in the first five years of the contract. Survey activities would identify potential commercial recovery sites and develop resource estimates for additional areas. The applicant would conduct two survey cruises which were scheduled for 2017 and 2018 to benefit from the findings of earlier survey cruises conducted by UKSRL in its area under exploration contract. The applicant stated that if UKSRL could conduct its survey more efficiently in its area under contract, OMS could result in those cruises being extended into the applicant's area before 2017. The environmental baseline studies would primarily focus on collection of environmental data (e.g., general benthic community characterization, baseline data collection and test monitoring), together with other relevant information for use in conducting seatests of commercial recovery equipment and monitoring the effects of those activities. This would serve in particular to complete a comprehensive environmental impact assessment for

commercial resource recovery, including a programme for monitoring commercial recovery operations. The applicant also stated that such activities would not occur without approval by the sponsoring State and the Authority and without knowledge of the requirements of the future regulations on exploitation by the Authority.

22. The Commission was provided with information relating to the prevention, reduction and control of hazards to and possible impacts on the marine environment. The applicant submitted a preliminary impact assessment of the anticipated activities during the initial five-year period, which involved non-disruptive sensing and the taking of samples in very small quantities.

23. Taking note of the working modalities outlined in the application, the Commission emphasized that each contractor with the Authority was required to report separately on the implementation of its activities under contract.

## **VI. Consideration of data and information submitted for approval of the plan of work for exploration for polymetallic nodules**

24. In accordance with regulation 18 of the Regulations, the application included the following information for approval of the plan of work for exploration:

(a) A general description and a schedule of the proposed exploration programme of activities to be undertaken in the first five-year period, such as studies to be undertaken in respect of the environmental, technical, economic and other appropriate factors that must be taken into account in exploration;

(b) A description of the programme for oceanographic and environmental baseline studies that would be carried out in accordance with the Regulations and environmental rules, regulations and procedures established by the Authority. Those baseline studies would enable an assessment to be made of the potential environmental impact of the proposed exploration activities, taking into account any recommendations issued by the Legal and Technical Commission;

(c) A preliminary assessment of the possible impact of the proposed exploration activities on the marine environment;

(d) A description of proposed measures for the prevention, reduction and control of pollution and other hazards to, and possible impacts on, the marine environment;

(e) Data necessary for the Council to make the determination it is required to make in accordance with regulation 12, paragraph 1 of the Regulations;

(f) A schedule of anticipated yearly expenditures in respect of the programme of activities for the first five-year period.

## **VII. Training programmes**

25. In accordance with regulation 27 and section 8 of annex 4 to the Regulations, the applicant provided information regarding an at-sea exploration training programme and an engineering training programme. These training programmes



would be open to at least five nationals of developing States who wish to specialize in engineering, marine biology, oceanography, geophysics and geology. The proposed programmes will be further detailed with the Authority should the applicant be granted a contract. The Commission highlighted that, in developing the training programmes, the applicant and the Secretary-General should ensure that the training programmes are in line with the Recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration, as developed by the Commission during the nineteenth session ([ISBA/19/LTC/14](#)).

## VIII. Conclusion and recommendations

26. Having examined the particulars submitted by the applicant, which are summarized in parts II to VII above, the Commission is satisfied that the application has been duly submitted in accordance with the Regulations and that the applicant is a qualified applicant, as defined in articles 4 and 9 of annex III to the Convention, and regulation 17 of the Regulations. The Commission is further satisfied that the applicant:

- (a) Has complied with the provisions of the Regulations;
- (b) Has given the undertakings and assurances specified in regulation 14 of the Regulations;
- (c) Possesses the financial and technical capability to carry out the proposed plan of work for exploration.

27. The Commission is satisfied that none of the conditions in regulation 21, paragraph 6, of the Regulations apply.

28. With respect to the proposed plan of work for exploration, the Commission is satisfied that the proposed plan of work for exploration will:

- (a) Provide for effective protection of human health and safety;
- (b) Provide for effective protection and preservation of the marine environment;
- (c) Ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity.

29. Accordingly, pursuant to regulation 21, paragraph 5 of the Regulations, the Commission recommends to the Council approval of the plan of work for exploration for polymetallic nodules submitted by Ocean Mineral Singapore Pte Ltd.

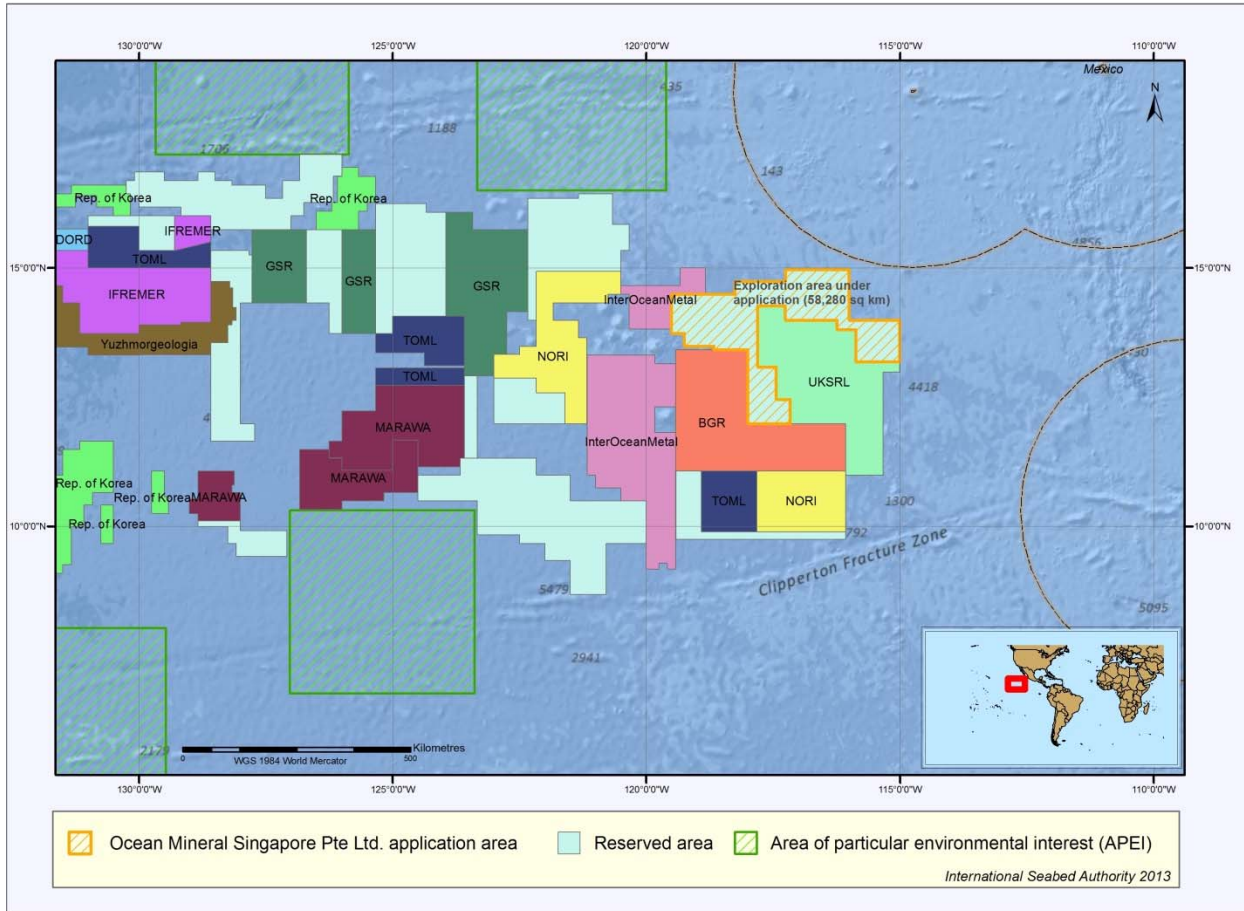
## Annex

### A. List of coordinates of the area under application

(in decimal degrees following the World Geodetic System 1984 geographical projection system)

<i>Turning point</i>	<i>Latitude (North)</i>	<i>Longitude (West)</i>
1	12.0000	117.1600
2	12.0000	118.0000
3	13.4333	118.0000
4	13.4333	118.6667
5	13.5000	118.6667
6	13.5000	119.2500
7	13.7500	119.2500
8	13.7500	119.5000
9	14.5000	119.5000
10	14.5000	118.2500
11	14.7500	118.2500
12	14.7500	117.2500
13	14.9667	117.2500
14	14.9667	116.0000
15	14.0000	116.0000
16	14.0000	115.0000
17	13.2000	115.0000
18	13.2000	115.8700
19	13.8200	115.8700
20	13.8200	116.2400
21	14.0000	116.2400
22	14.0000	117.2600
23	14.2800	117.2600
24	14.2800	117.8000
25	13.1000	117.8000
26	13.1000	117.4400
27	12.4700	117.4400
28	12.4700	117.1600

**B. Map of the general location of the area under application**





## Council

Distr.: General  
28 May 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Laws, regulations and administrative measures adopted by sponsoring States and other members of the International Seabed Authority with respect to the activities in the Area**

#### **Report of the Secretary-General**

1. It is recalled that, on 1 February 2011, the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea delivered its advisory opinion on the responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area. The Chamber affirmed that the Convention requires the sponsoring State to adopt, within its legal system, laws and regulations and to take administrative measures that have two distinct functions, namely, to ensure compliance by the contractor with its obligations and to exempt the sponsoring State from liability. The existence of such laws and regulations and administrative measures is not a condition for concluding a contract with the Authority; it is, however, a necessary requirement for compliance with the obligation of due diligence of the sponsoring State and for seeking its exemption from liability. The Chamber further indicated that the national measures, once adopted, may not be appropriate in perpetuity. Such measures should be kept under review so as to ensure that they meet current standards and that the contractor meets its obligations effectively without detriment to the common heritage of mankind.

2. At the seventeenth session of the International Seabed Authority, in 2011, the Council of the Authority adopted a decision in which it requested the Secretary-General to prepare a report on the laws, regulations and administrative measures adopted by sponsoring States and other members of the Authority with respect to the activities in the Area, and invited sponsoring States and other members of the Authority, as appropriate, to provide information on, or texts of, relevant national laws, regulations and administrative measures to the secretariat (see [ISBA/17/C/20](#)).

3. At the eighteenth session of the Authority, in 2012, in response to that request, the Secretary-General presented to the Council a report on the laws, regulations and administrative measures adopted by sponsoring States and other members of the Authority with respect to the activities in the Area ([ISBA/18/C/8](#) and Add.1). After consideration of the report, the Council requested the Secretary-General to update,



on an annual basis, the study of the laws, regulations and administrative measures adopted by sponsoring States and other members of the Authority with respect to activities in the Area, and to invite, for that purpose, sponsoring States and other members of the Authority to provide texts of relevant national laws, regulations and administrative measures to the secretariat (see [ISBA/18/C/21](#)).

4. At the nineteenth session of the Authority, in 2013, the Secretary-General presented to the Council an updated report on the matter ([ISBA/19/C/12](#)), which was considered by the Council. Several delegations expressed their appreciation to the secretariat for setting up an online database on national legislation. One delegation emphasized that the national legislation should be in conformity with the regulations. It was noted that, in July 2013, Fiji had promulgated the International Seabed Mineral Management Decree 2013, which is a law to govern Fiji's engagement in seabed mineral activities in the Area beyond national jurisdiction and for related matters.

5. Since the nineteenth session, Belgium has promulgated two laws, in July and August 2013, concerning prospecting, exploration for and exploitation of the commodities in the Area and subsoil beyond the limits of national jurisdiction.

6. On 10 March 2014, the secretariat circulated a note verbale further inviting sponsoring States and other members of the Authority to submit to the secretariat texts of their relevant national laws, regulations and administrative measures or related information. However, as at the end of May 2014, no further text or information had been received.

7. As of 30 May 2014, the following States had provided information on or texts of relevant national legislation: Belgium, China, the Cook Islands, the Czech Republic, Fiji, France, Germany, Guyana, Japan, Mexico, Nauru, the Netherlands, New Zealand, Oman, the Republic of Korea, Tonga, the United Kingdom of Great British and Northern Ireland, the United States of America and Zambia. A submission had also been received from the South Pacific Commission on behalf of the Pacific Islands region. Such information on or texts of national laws, regulations and administrative measures submitted by the above-mentioned States or members of the Authority are available on the Authority's website ([www.isa.org.jm/en/mcode/NatLeg](http://www.isa.org.jm/en/mcode/NatLeg)).

8. The secretariat will continue to keep the online database updated as new information is received. The secretariat is also undertaking a comparative study of the existing national legislation, with a view to analysing common elements that may be contained in such legislation, while keeping in mind the advisory opinion of the Chamber.

9. The Council is invited to take note of the present report.

## Annex

### List of the legislation

#### I. General

United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982. In force 16 November 1994. United Nations *Treaty Series*, vol. 1833, No. 1-31363, p. 397; 21 *International Legal Materials* 1261 (1982).

Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982. In force 28 July 1994. General Assembly resolution 48/263; 33 *International Legal Materials* 1309 (1994); United Nations *Treaty Series*, vol. 1836, No. 1-31364, p. 42.

Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area. Adopted 13 July 2000 (ISBA/6/A/18 dated 4 October 2000), and amended in 2013 (ISBA/19/C/17, annex, dated 22 July 2013).

Regulations on prospecting and exploration for polymetallic sulphides in the Area. Adopted 7 May 2010 (ISBA/16/A/12/Rev.1, dated 15 November 2010). Also reproduced in *Selected Decisions* 16, pp. 35-75.

Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area. Adopted 27 July 2012 (ISBA/18/A/11, dated 22 October 2012).

#### II. National legislation

##### Belgium

30 July 2013 — Act introducing into the Act of 17 August 2013, on prospecting and exploration for, and exploitation of, resources of the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction, provisions regulating the matters covered by Article 77 of the Constitution.

17 August 2013 — Act on prospecting and exploration for, and exploitation of, resources of the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction.

##### China

Mineral Resources Law of the People's Republic of China. Adopted at the 15th meeting of the Standing Committee of the Sixth National People's Congress on 19 March 1986. Revised in accordance with the Decision of the Standing Committee of the National People's Congress on Revising the Mineral Resources Law of the People's Republic of China adopted at the 21st meeting of the Standing Committee of the Eighth National People's Congress on 29 August 1996.

Rules for Implementation of the Mineral Resources Law of the People's Republic of China. Promulgated by Decree No. 152 of the State Council of the People's Republic of China on 26 March 1994. Effective as of the date of promulgation.

Marine Environmental Protection Law of the People's Republic of China. Adopted at the twenty-fourth session of the Standing Committee of the Fifth National People's Congress on 23 August 1982. Effective as of 1 March 1983. Revised at the thirteenth session of the Standing Committee of the Ninth National People's Congress on 25 December 1999, and further revised at the sixth session of the Standing Committee of the Twelfth National People's Congress on 28 December 2013.

Administrative Regulation on the Prevention and Treatment of the Pollution and Damage to the Marine Environment by Marine Engineering Construction Projects. Adopted at the 148th executive meeting of the State Council on 30 August 2006. In force as of 1 November 2006.

### **Cook Islands**

Seabed Minerals Act 2009.

Model Seabed Minerals Agreement of April 2011.

### **Czech Republic**

Prospecting, Exploration for and Exploitation of Mineral Resources from the Seabed beyond Limits of National Jurisdiction. Act No. 158/2000 of 18 May 2000.

### **Fiji**

International Seabed Mineral Management Decree 2013, Decree No. 21.

### **France**

Note verbale dated 22 March 2013 from the Embassy of France in Jamaica.

### **Germany**

Federal Maritime Responsibilities Act of 26 July 2002 (*Federal Law Gazette I*, p. 2876). Amended by article 4 of the Act of 2 June 2008 (*Federal Law Gazette* 2008 II, p. 520).

### **Guyana**

Maritime Zones Act 2010 — Act No. 18 of 2010. In force as of 18 September 2010.

### **Japan**

Law on Interim Measures for Deep Sea-bed Mining, 1982.

Mining Act. Adopted 20 December 1950. Amended 22 July 2011.

## **Mexico**

Report on the laws, regulations and administrative measures of Mexico on underwater mining. Submitted by the Embassy of Mexico in Jamaica on 21 December 2011.

Guide for the presentation of environmental impact statements for the mining sector and analysis of gaps and omissions in the conservation of marine biodiversity in Mexican oceans, coasts and islands of the Ministry of the Environment and Natural Resources of Mexico. Submitted by the Embassy of Mexico in Jamaica on 21 December 2011.

General Law on Ecological Balance and the Protection of the Environment. *Official Gazette*, 28 January 1988. Reform and update of 4 June 2012.

Regulations of the General Law on Ecological Balance and the Protection of the Environment on Environmental Impact Assessment. *Official Gazette*, 30 May 2000. Reform and update of 26 April 2012.

Mining Law. *Official Gazette*, 26 June 1992. Amended 28 April 2005.

National environmental policy for the sustainable development of Mexico's oceans and coasts: strategies for their conservation and sustainable use (see [A/61/372](#), annex).

## **Nauru**

See Pacific Islands region.

## **Netherlands**

Note verbale dated 26 March 2013 from the Permanent Mission of the Netherlands.

## **New Zealand**

United Nations Convention on the Law of the Sea Act 1996.

## **Oman**

Royal Decree No. 2011/8 regulating oil and gas exploration; and Royal Decree No. 2003/27 and Ministerial Decree No. 2011/77 regulating mineral exploration (Regulations of the Mining Act).

## **Pacific Islands region**

Pacific-ACP States Regional Legislative and Regulatory Framework for Deep Sea Minerals Exploration and Exploitation. Secretariat of the Pacific Community-European Union Deep Sea Minerals Project, 18 April 2012.



## **Republic of Korea**

Note verbale dated 2 April 2013 from the Permanent Mission of the Republic of Korea.

Status of legislation related to Deep Seabed Activity by the Government of the Republic of Korea.

## **Tonga**

See Pacific Islands region.

## **United Kingdom of Great Britain and Northern Ireland**

Deep Sea Mining (Temporary Provisions) Act 1981 (Isle of Man) Order 2000, No. 1112. In operation on 1 May 2000.

## **Zambia**

Environmental Protection and Pollution Control Act (No. 12 of 1990); and (Amendment) Act 1999 (No. 12 of 1999) — Cap 204 of the Law of Zambia.

### **III. Reciprocating States legislation**

France. Law on the Exploration and Exploitation of Mineral Resources on the Deep Sea-bed 1981, Law No. 81-1135 of 23 December 1981.

Germany. Act on Interim Regulation of Deep Seabed Mining 1980, dated 16 August 1980 (English translation) (1981). *International Legal Materials*, XX, p. 393.

Italy. Regulations on the Exploration and Exploitation of the Mineral Resources of the Deep Seabed, Law No. 41 of 20 February 1985.

Japan. Law on Interim Measures for Deep Sea-bed Mining, 1982. *International Legal Materials*, 22 (1) (1983), pp. 102-122.

New Zealand. Continental Shelf Act 1964.

Union of Soviet Socialist Republics. [Edict on] Provisional Measures to Regulate the Activity of Soviet Enterprises relating to the Exploration and Exploitation of Mineral Resources of Sea-bed Areas beyond the Limits of the Continental Shelf, 17 April 1982.

United Kingdom. Deep Sea Mining (Temporary Provisions) Act, 1981. 1981, chapter 53, 28 July 1981.

United Kingdom. Deep Sea Mining (Exploration Licences) (Applications) Regulations 1982, No. 58. Effective 25 January 1982.

United Kingdom. Deep Sea Mining (Exploration Licences) Regulations 1984, No. 1230. In operation on 3 September 1984.

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United States. Deep Seabed Hard Mineral Resources Act, 1980. Public Law 96-283, 28 June 1980, 94 Stat. 553 (30 U.S.C. 1401 et seq.), as amended to 1 July 2000.

#### **IV. National legislation of an observer State**

##### **United States of America**

Deep Seabed Hard Mineral Resources Act, 1980. Public Law 96-283, 28 June 1980, 94 Stat. 553 (30 U.S.C. 1401 et seq.), as amended to 1 July 2000.

Deep Seabed Mining Regulations Affecting Pre-enactment Explorers. 45 Fed. Reg. 226 (20 November 1980), pp. 76661-76663.

Deep Seabed Mining Regulations for Exploration Licenses 1980. 46 Fed. Reg. 45896 (15 September 1981); 15 Code of Federal Regulations, Part 970.

Deep Seabed Mining Regulations for Commercial Recovery Permits, 54 Fed. Reg. 525 (6 January 1989); 15 Code of Federal Regulations, Part 971.

Guidelines for Obtaining Minerals other than Oil, Gas and Sulphur on the Outer Continental Shelf of the United States Department of the Interior, Minerals Management Service (MMS) (Public Law 103-426, enacted 31 October 1994; 108 Stat. 4371). OCS Report. MMS 99-0070 (December 1999).



## Council

Distr.: General  
9 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Laws, regulations and administrative measures adopted by sponsoring States and other members of the International Seabed Authority with respect to the activities in the Area**

#### **Report of the Secretary-General**

##### **Addendum**

1. On 4 July 2014, the Secretary-General of the International Seabed Authority received a note verbale from the Legal Directorate of the Foreign and Commonwealth Office of the United Kingdom of Great Britain and Northern Ireland, informing the Authority that on 14 May 2014, Royal Assent was given to the Deep Sea Mining Act 2014, which shall enter into force in the United Kingdom on 14 July 2014.

2. The Authority was further informed that the Deep Sea Mining Act 2014 amends the Deep Sea Mining (Temporary Provisions) Act 1981, which was enacted prior to the adoption of the United Nations Convention on the Law of the Sea. The 1981 Act was sufficient for the Government of the United Kingdom to exercise effective control over a licensee involved in exploration or exploitation of the deep sea, as required of sponsoring States under the Convention, however only in relation to polymetallic nodules. The legislation also needed to be updated to ensure consistency with the Convention and the Implementation Agreement. The 1981 Act was based upon the idea that there would be a number of States which would sponsor the activities of their nationals, and that each such State would reciprocally recognize the activities of companies of the other States; whereas under the Convention and the Implementation Agreement, regulation is ensured through the Authority. Furthermore, under the Convention there are two provisions requiring recognition of judicial and arbitral decisions. The Deep Sea Mining Act 2014 makes amendments to the 1981 Act in order to implement provisions within the United Kingdom in respect of the Convention and the Implementation Agreement.

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\* Reissued for technical reasons on 9 July 2014.



3. The full text of the Deep Sea Mining Act 2014 is available on the website of the Authority.
4. The information regarding the national legislation of the United Kingdom of Great Britain and Northern Ireland contained in part II of the annex to document [ISBA/20/C/11](#) should be replaced by the following:

**United Kingdom of Great Britain and Northern Ireland**

Deep Sea Mining (Temporary Provisions) Act, 1981, as amended by Deep Sea Mining Act 2014, effective 14 July 2014.

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## Council

Distr.: General  
18 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Laws, regulations and administrative measures adopted by sponsoring States and other members of the International Seabed Authority with respect to the activities in the Area**

#### **Report of the Secretary-General**

##### **Corrigendum**

**Annex.** List of the legislation

##### II. National legislation

“Germany

Federal Maritime Responsibilities Act of 26 July 2002 (*Federal Law Gazette I*, p. 2876). Amended by article 4 of the Act of 2 June 2008 (*Federal Law Gazette 2008 II*, p. 520).”

*Should read*

“Germany

Seabed Mining Act of 6 June 1995 (the Act). Amended by article 74 of the Act of 8 December 2010 (*Federal Law Gazette I*, p. 1864).”





## Council

Distr.: General  
2 June 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Status of prospecting and of contracts for exploration for polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts in the Area**

#### **Report of the Secretary-General**

1. The present report provides members of the Council with information on the status of prospecting, and of contracts for exploration in the Area. Exploration contracts currently cover three different types of mineral resource: polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts. The report also includes information on the status of the periodic review of the implementation of the plan of work for exploration pursuant to the contract for exploration for polymetallic nodules between the International Seabed Authority and the Government of India. Lastly, the report provides information on the status of implementation of the decision of the Assembly of 25 July 2013 ([ISBA/19/A/12](#)) relating to the establishment of an overhead charge to reflect the cost of administration and supervision of contracts. The information contained in the present report is up to date as at 27 May 2014.

#### **Status of prospecting**

2. On 6 September 2011, pursuant to regulation 4, paragraph 2, of the Regulations on Prospecting and Exploration for Polymetallic Sulphides ([ISBA/16/A/12/Rev.1](#), annex), the Federal Institute for Geosciences and Natural Resources of Germany (BGR) notified the Secretary-General of its intention to engage in prospecting for polymetallic sulphides in the area of the Southern Central Indian Ridge and the Northern Southeast Indian Ridge. This notification was duly recorded and the prospector was informed accordingly.

3. Pursuant to regulation 6, prospectors are required to submit an annual report on the status of prospecting and the results obtained. The first such report was due from BGR in 2013. It was duly received on 23 December 2013 and was submitted to the Commission at its meetings in February 2014. The Commission took note of the report. The second annual report was received from BGR on 22 May 2014 and will be placed before the Commission in July 2014.



**Status of exploration contracts**

4. As at 27 May 2014, 16 contracts for exploration are in force. This includes 12 contracts for exploration for polymetallic nodules, 2 contracts for exploration for polymetallic sulphides and 2 contracts for exploration for cobalt crusts. A complete list of contracts, including details of the contractor and date of entry into force of each contract, is provided in annex I to the present report.

5. Since the nineteenth session, two plans of work for exploration for cobalt-rich ferromanganese crusts that had been approved by the Council in July 2013 (see [ISBA/19/C/13](#) and [ISBA/19/C/15](#)) were prepared in the form of contracts. On 27 January 2014 a contract with Japan Oil, Gas and Metals National Corporation (JOGMEC) was concluded in Tokyo. The contract with the China Ocean Mineral Resources Research and Development Association (COMRA) was signed in Beijing on 29 April 2014.

6. Three of the plans of work for exploration that had been approved by the Council during the eighteenth session remain to be concluded in the form of a contract. The plans were submitted by the Government of the Republic of Korea (sulphides), by the Institut français de recherche pour l'exploitation de la mer (IFREMER) (sulphides) and by Marawa Research and Exploration Ltd. (nodules). It is anticipated that the contract with the Government of the Republic of Korea will be signed prior to the twentieth session, to be held in July 2014. In the case of IFREMER, consultations are ongoing with respect to the incorporation of the new standard clauses and other terms of the contract have been agreed on (see below). In the case of Marawa Research and Exploration Ltd., good progress has been made towards the finalization of the contract, including the new standard clauses, which is now pending final agreement.

7. A further seven applications are under consideration by the Legal and Technical Commission.<sup>1</sup> If all of the applications are approved by the Council in July 2014, it will bring the number of exploration contracts to 26. That means that the Commission may need to devote more time to supervising the activities of contractors.

**Periodic review of the implementation of the plan of work for exploration by the Government of India**

8. Each contract for exploration has a fixed duration of 15 years, which is implemented in three five-year periods. For each five-year period, the contractor is required to provide a detailed programme of activities, including a schedule of anticipated yearly expenditures, to be incorporated into the contract as schedule 2. Every five years, the contractor and the Secretary-General jointly undertake a review of the implementation of the plan of work for exploration. In the light of the review, the contractor makes adjustments, as necessary, to its previous programme

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<sup>1</sup> In February 2014, the Commission recommended to the Council the approval of four applications. These were submitted by the Ministry of Natural Resources and the Environment of the Russian Federation (cobalt crusts), UK Seabed Resources Ltd. (nodules), the Government of India (sulphides) and Ocean Mineral Singapore Pte Ltd. (nodules). Three applications are pending for consideration by the Commission in July 2014. These were received from the Federal Institute for Geosciences and Natural Resources of Germany (sulphides), Cook Islands Investment Corporation (nodules) and Companhia de Pesquisa de Recursos Minerais S.A. (cobalt-rich ferromanganese crusts).

of activities and submits a proposed programme of activities for the following five-year period. The parties to the contract must then formally agree, through an exchange of letters, on the incorporation of the new programme of activities for the next five-year period into the contract.

9. As reported previously (ISBA/19/C/9/Rev.1), with respect to the contract for exploration for polymetallic nodules with the Government of India (concluded on 25 March 2002), the second five-year period of the contract came to an end on 24 March 2012. The contractor submitted a proposed programme of activities in April 2012. This was reviewed during a series of bilateral meetings between the contractor and the Secretary-General held during the eighteenth and nineteenth sessions of the Authority in Kingston and in October 2013 in India, which also took into account discussions in the Legal and Technical Commission relating to the contractor's programme of work. Following further exchanges of views between the parties, the review process was formally concluded by an exchange of letters dated 6 March 2014.

#### **Status of consultations regarding the implementation of the decision ISBA/19/A/12**

10. By its decision of 25 July 2013 (ISBA/19/A/12), the Assembly established an annual overhead charge of US \$47,000 to reflect the cost of administration and supervision of contracts with the Authority. That charge is to be paid in respect of each exploration contract and is due by 31 March each year. The decision is implemented by amendments to the standard clauses for exploration contracts contained in annex 4 to the Regulations on Prospecting and Exploration for Polymetallic Sulphides so as to introduce two new clauses, section 10.5 and 10.6. The decision also indicates the date of its entry into force and includes special provisions regarding its effect as regards existing contracts and pending and approved applications submitted prior to the date of its entry into force.

#### *Applications submitted after 25 July 2013*

11. The decision of the Assembly takes effect from the date of its adoption, that is, 25 July 2013. Consequently, the new standard clauses 10.5 and 10.6 will apply automatically to any contract entered into as a result of applications for approval of plans of work for exploration submitted after 25 July 2013. The applications submitted by BGR, Cook Islands Investment Corporation (CIIC) and the Companhia de Pesquisa de Recursos Minerais S.A. (CPRM) are in this category. Subject to their approval by the Council in July 2014, the new standard clauses will automatically be incorporated.

#### *Existing contracts*

12. With respect to those exploration contracts already in existence as at 25 July 2013, the Assembly urged the Secretary-General to consult as soon as possible with each contractor, in accordance with section 24.2 of the standard clauses, with a view to amending those contracts, in order to include the new provisions. Accordingly, the Secretary-General wrote to 14 contractors in July 2013 proposing amendments to the standard clauses in line with the decision of the Assembly. Bilateral consultations were also held with Deep Ocean Resources Development Ltd. (DORD) in January 2014, UK Seabed Resources Ltd. (UKSRL) in March 2014, BGR in March 2014, COMRA in April 2014 and the Government of the Republic of



Korea in May 2014. As at May 2014, DORD, G-TEC Sea Mineral Resources NV, Tonga Offshore Mining Limited (TOML) and BGR had agreed in writing to amend their contracts to include the new standard clauses. Consultations with the other contractors are ongoing. The status of responses is detailed in annex II to the present report.

*Applications submitted prior to 25 July 2013*

13. With respect to applications for approval of plans of work for exploration submitted prior to 25 July 2013, the Assembly had requested the Secretary-General to consult with the applicants concerned prior to the signature of their contracts, with a view to incorporating the new provisions. This concerns two categories of applications, namely, those that had been approved before 25 July 2013 and those that had already been submitted but were still under consideration by the Legal and Technical Commission or the Council as at that date.

14. On 25 and 26 July 2013, the Secretary-General wrote to five applicants whose plans of work had been approved in 2012 and in 2013. These were JOGMEC, COMRA, the Government of the Republic of Korea, Marawa Research and Exploration Ltd. and IFREMER. JOGMEC, COMRA and the Government of the Republic of Korea agreed to incorporate the new standard clauses in their contracts and this is reflected in the contracts signed with JOGMEC and COMRA and in the contract to be signed with the Government of the Republic of Korea in 2014. In March 2014, IFREMER indicated that it was not in a position to accept the proposed additional clauses in the contract. In response, the Secretary-General wrote to IFREMER proposing further consultations with the applicant and the sponsoring State prior to signature of the contract in order to try to find a mutually acceptable solution. The secretariat has been working with Marawa Research and Exploration Ltd. to try to finalize the content of the contract, including new standard clauses 10.5 and 10.6, although the prospective contractor has indicated that it has difficulty in accepting the new clauses.

15. Applications by the Ministry of Natural Resources of the Russian Federation (crusts), UK Seabed Resources Ltd. (nodules), the Government of India (sulphides) and Ocean Mineral Singapore Pte Ltd. (nodules), were submitted prior to 25 July 2013. Assuming that those applications are approved by the Council in July 2014, consultations will take place with each applicant concerning the incorporation of the new standard clauses in the respective contracts.

16. The Council is invited to take note of the present report and to provide direction as may be necessary with regard to the implementation of the decision of the Assembly in [ISBA/19/A/12](#).

## Annex I

### Status of contracts for exploration for polymetallic nodules, for polymetallic sulphides and for cobalt-crusts

#### A. Contracts for exploration for polymetallic nodules

<i>Contractor</i>	<i>Date of entry into force of contract</i>	<i>Sponsoring State or States</i>	<i>General location of the exploration area under contract</i>	<i>Date of expiry of contract</i>
Interoceanmetal Joint Organization	29 March 2001	Bulgaria, Cuba, Czech Republic, Poland, Russian Federation and Slovakia	Clarion-Clipperton Fracture Zone	28 March 2016
Yuzhmorgeologiya	29 March 2001	Russian Federation	Clarion-Clipperton Fracture Zone	28 March 2016
Government of the Republic of Korea	27 April 2001		Clarion-Clipperton Fracture Zone	26 April 2016
China Ocean Mineral Resources Research and Development Association	22 May 2001	China	Clarion-Clipperton Fracture Zone	21 May 2016
Deep Ocean Resources Development Ltd.	20 June 2001	Japan	Clarion-Clipperton Fracture Zone	19 June 2016
Institut français de recherche pour l'exploitation de la mer	20 June 2001	France	Clarion-Clipperton Fracture Zone	19 June 2016
Government of India	25 March 2002		Central Indian Ocean Basin	24 March 2017
Federal Institute for Geosciences and Natural Resources of Germany	19 July 2006	Germany	Clarion-Clipperton Fracture Zone	18 July 2021
Nauru Ocean Resources Inc.	22 July 2011	Nauru	Clarion-Clipperton Fracture Zone (reserved area)	21 July 2026
Tonga Offshore Mining Limited	11 January 2012	Tonga	Clarion-Clipperton Fracture Zone (reserved area)	10 January 2027
Marawa Research and Exploration Ltd.	To be signed	Kiribati	Clarion-Clipperton Fracture Zone (reserved area)	

<i>Contractor</i>	<i>Date of entry into force of contract</i>	<i>Sponsoring State or States</i>	<i>General location of the exploration area under contract</i>	<i>Date of expiry of contract</i>
UK Seabed Resources Ltd.	8 February 2013	United Kingdom of Great Britain and Northern Ireland	Clarion-Clipperton Fracture Zone	7 February 2028
G-TEC Sea Mineral Resources NV	14 January 2013	Belgium	Clarion-Clipperton Fracture Zone	13 January 2028

### **B. Contracts for exploration for polymetallic sulphides**

<i>Contractor</i>	<i>Date of entry into force of contract</i>	<i>Sponsoring State or States</i>	<i>General location of the exploration area under contract</i>	<i>Date of expiry of contract</i>
China Ocean Mineral Resources Research and Development Association	18 November 2011	China	Southwest Indian Ridge	17 November 2026
Government of the Russian Federation	29 October 2012		Mid-Atlantic Ridge	28 October 2027
Government of the Republic of Korea	To be signed		Central Indian Ocean	
Institut français de recherche pour l'exploitation de la mer	To be signed	France	Mid-Atlantic Ridge	

### **C. Contracts for exploration for cobalt-rich ferromanganese crusts**

<i>Contractors</i>	<i>Date of entry into force of contract</i>	<i>Sponsoring State or States</i>	<i>General location of the exploration area under contract</i>	<i>Date of expiry of contract</i>
Japan Oil, Gas and Metals National Corporation	27 January 2014	Japan	Western Pacific Ocean	26 January 2029
China Ocean Mineral Resources Research and Development Association	29 April 2014	China	Western Pacific Ocean	28 April 2029

## Annex II

### Status of consultations with respect to the revision of exploration contracts existing at 25 July 2013

<i>Contractors</i>	<i>Status</i>
Government of the Russian Federation (sulphides)	Under consideration
China Ocean Mineral Resources Research and Development Association (sulphides)	Under consideration
Tonga Offshore Mining Limited	Accepted on 18 February 2014
Nauru Ocean Resources Inc.	No response
Institut français de recherche pour l'exploitation de la mer	Under consideration
G-TEC Sea Mineral Resources NV	Accepted on 19 December 2013
China Ocean Mineral Resources Research and Development Association (nodules)	Under consideration
Yuzhmorgeologiya	Under consideration
Government of India	Under consideration
Government of the Republic of Korea	Under consideration
Federal Institute for Geosciences and Natural Resources of Germany	Accepted on 21 March 2014
Deep Ocean Resources Development Ltd.	Accepted on 9 January 2014
Interoceanmetal Joint Organization	Responded December 2013 asking for formal proposal to be submitted for consideration by governing bodies in 2014. Formal proposal submitted to Interoceanmetal Joint Organization on 14 January 2014
UK Seabed Resources Ltd.	Under consideration



## Council

Distr.: General  
24 June 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Status of prospecting and of contracts for exploration for polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts in the Area**

#### **Report of the Secretary-General**

##### **Addendum**

1. The present addendum provides an update to developments relating to exploration contracts since the report of the Council dated 2 June 2014 ([ISBA/20/C/12](#)).

##### **Status of exploration contracts**

2. With respect to the approved plan of work for exploration for polymetallic sulphides in the Area by the Government of the Republic of Korea, the contract was signed on 15 June 2014 at Seoul and on 24 June 2014 at Kingston. That brings the number of exploration contracts issued by the International Seabed Authority to 17. Annex I to the above-mentioned report shall be read accordingly.

##### **Status of consultations regarding the implementation of the decision [ISBA/19/A/12](#)**

3. On 17 June 2014, the Government of the Republic of Korea agreed in writing to revise appendix II to the contract for exploration for polymetallic nodules in the Area between the Authority and the Government of the Republic of Korea, by incorporating standard clauses 10.5 and 10.6. Annex II to the above-mentioned report shall be read accordingly.





## Council

Distr.: General  
9 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic sulphides by the Federal Institute for Geosciences and Natural Resources on behalf of the Federal Republic of Germany**

#### **I. Introduction**

1. On 17 December 2013, the Secretary-General of the International Seabed Authority received an application for the approval of a plan of work for exploration for polymetallic sulphides in the Area. The application was submitted, pursuant to the Regulations on prospecting and exploration for polymetallic sulphides in the Area ([ISBA/16/A/12/Rev.1](#), annex), by the Federal Institute for Geosciences and Natural Resources on behalf of the Federal Republic of Germany.
2. On 19 December 2013, in accordance with regulation 22 (c) of the Regulations, the Secretary-General issued a note verbale to notify the members of the Authority of the receipt of the application and circulated information of a general nature concerning the application. The Secretary-General also placed consideration of the application as an item on the agenda of the Legal and Technical Commission at its meeting held from 3 to 13 February 2014.
3. On 28 June 2014, the applicant submitted to the Secretary-General of the Authority amendments to the application which modified the area under application.



## **II. Methodology and consideration of the application by the Legal and Technical Commission**

### **A. General methodology applied by the Commission in consideration of the application**

4. In its consideration of the application, the Commission noted that, in keeping with the scheme established in article 6 of annex III to the United Nations Convention on the Law of the Sea, it was first required to make an objective determination as to whether the applicant had fulfilled the requirements contained in the Regulations, particularly with respect to the form of applications; whether the applicant had provided the necessary undertakings and assurances specified in regulation 15 of the Regulations; and whether it had the necessary financial and technical capability to carry out the proposed plan of work for exploration and, as appropriate, had satisfactorily discharged its obligations under any previous contract with the Authority. The Commission is then required to determine, in accordance with regulation 23 (4) of the Regulations and its procedures, whether the proposed plan of work will provide for effective protection of human health and safety, effective protection and preservation of the marine environment, and ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity. Regulation 23 (5) of the Regulations goes on to provide that if the Commission makes the determinations specified in paragraph 3 and determines that the proposed plan of work for exploration meets the requirements of paragraph 4, the Commission shall recommend approval of the plan of work for exploration to the Council.

5. In considering the proposed plan of work for exploration for polymetallic sulphides, the Commission took into account the principles, policies and objectives relating to activities in the Area as provided for in Part XI of and annex III to the Convention and in the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982.

### **B. Consideration of the application**

6. The Commission considered the application in closed meetings on 5, 6 and 7 February 2014, and on 7 and 8 July 2014.

7. Prior to commencing a detailed examination of the application, the Commission invited the head of delegation, Ambassador and Permanent Representative of Germany to the Authority, Josef Beck, and the representatives of the applicant, Ulrich Schwarz-Schampera, geologist, accompanied by Michael Wiedicke-Hombach, geologist, to make a presentation of the application. Members of the Commission then asked questions to obtain clarification on certain aspects of the application before convening in closed session to examine the application in detail. Following its initial consideration, the Commission decided to request the Chair of the Commission to transmit a list of questions to the applicant in writing through the Secretary-General. Responses were received from the applicant; however the Commission did not have time to complete consideration of the application and decided to defer consideration of it and to take it up as a matter of

priority at its next meeting in July 2014. The written responses provided by the applicant, which supplemented the equivalent parts of the originally submitted application, together with the amendments to the area under application, were taken into account by the Commission in its subsequent consideration of the application at its session in July.

### **III. Summary of basic information regarding the application**

#### **A. Identification of the applicant**

8. Name of the applicant: Federal Institute for Geosciences and Natural Resources, on behalf of the Federal Republic of Germany.

9. Address of the applicant:

- (a) Street address: Stilleweg 2, D-30655 Hannover, Germany;
- (b) Postal address: Postfach 51 01 53, D-30631 Hannover, Germany;
- (c) Telephone number: +49.511.643-0;
- (d) Fax Number: +49.511.643-23 04;
- (e) E-mail address: poststelle@bgr.de.

10. The applicant's designated representative is:

- (a) Name: Hans-Joachim Kümpel;
- (b) Street address: same as above in paragraph 9 (a);
- (c) Postal address: same as above in paragraph 9 (b);
- (d) Telephone number: +49.511.643-2244;
- (e) Fax number: +49.511.643-3676;
- (f) E-mail address: Hans-Joachim.kuempel@bgr.de.

11. The applicant is the central geoscientific institution of the Government of the Federal Republic of Germany.

#### **B. Sponsorship**

12. The sponsoring State is the Federal Republic of Germany.

13. The date of deposit of the instrument of ratification of the 1982 United Nations Convention on the Law of the Sea and of consent to be bound by the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 is 14 October 1994.

14. The certificate of sponsorship is dated 28 November 2013 and signed by Knut Brünjes, Director General of the Federal Ministry of Economics and Technology.

15. The certificate of sponsorship states that the applicant is the geoscientific research and advisory agency of the German Federal Government. As part of the German federal administration, the applicant is organized under German public law



and is subject to the effective control and supervision of the German Federal Ministry of Economics and Technology; in that certificate, the sponsoring State declares that it assumes responsibility in accordance with article 139, article 153, paragraph 4, and annex III, article 4, paragraph 4, of the United Nations Convention on the Law of the Sea. The certificate of sponsorship refers to the domestic legislation which governs prospecting and activities in the Area which are conducted by natural or legal persons subject to German law.

### **C. Area of application**

16. The area under application is located in the Central Indian Ocean. It consists of 100 blocks measuring approximately 10 km by 10 km each, with an area of 100 km<sup>2</sup>. As amended by the applicant, the blocks are arranged in 12 non-contiguous clusters, with a minimum of 5 blocks per cluster. The blocks in each cluster are contiguous. The 12 clusters are confined with a rectangular area. The confining rectangle has a length (NW-SE) of 949.8 km and a width of 228.7 km. The covered area is approximately 217,500 km<sup>2</sup> in size. This complies with regulation 12. The coordinates and general location of the area under application are shown in the annex to the present document.

### **D. Other information**

17. The Federal Institute for Geosciences and Natural Resources and the Authority signed a contract for exploration for polymetallic nodules on 19 July 2006. The applicant provided a list of reports which have been submitted to the Authority in connection with the contract.

18. The applicant attached a written undertaking signed by the applicant's designated representative, in compliance with regulation 15 of the Regulations.

19. The applicant elects to offer an equity interest in a joint venture arrangement in accordance with regulation 19 of the Regulations.

20. The applicant has paid a fee of \$500,000 in accordance with regulation 21 (1) (a) of the Regulations.

## **IV. Examination of information and technical data submitted by the applicant**

21. The following technical documents and information were submitted in the application:

- (a) Information relating to the area under application:
  - (i) Charts of the location of the blocks;
  - (ii) A list of the coordinates of the corners of blocks under application in accordance with the World Geodetic System 1984;
- (b) A certificate of sponsorship;

- (c) Information to enable the Council to determine whether the applicant is financially capable of carrying out the proposed plan of work for exploration;
- (d) Information to enable the Council to determine whether the applicant is technically capable of carrying out the proposed plan of work for exploration;
- (e) Plan of work for exploration;
- (f) Training programme;
- (g) Written undertakings by the applicant.

## **V. Consideration of financial and technical qualifications of the applicant**

### **A. Financial capacity**

22. The applicant stated that it had the necessary financial resources to meet the estimated costs of the proposed plan of work for exploration and is financially capable of responding to any incident or activity of the proposed exploration which might cause harm to the marine environment. The applicant also indicated expenditures related to the exploration of polymetallic sulphides and their environmental characteristics, along with costs related to German research cruises to the area under application since the first cruises in the early 1980s.

### **B. Technical capacity**

23. In evaluating the technical capacity of the applicant, the Commission took note of the scope of responsibilities of the Federal Institute for Geosciences and Natural Resources, as well as information in relation to its marine expertise, particularly in the exploration of polymetallic nodules and polymetallic sulphides. The applicant has a well-experienced and well-equipped marine research section which covers all geo-scientific disciplines. Since its foundation in 1958, the applicant has conducted more than 100 marine research projects in oceans around the world and has a suite of in-house geochemical, mineralogical and micro-analytical laboratories and equipment of an international standard. In addition, the applicant currently holds an exploration contract with the Authority since 2006. With respect to polymetallic sulphides, more particularly, the applicant has a long record of scientific and prospecting work in the southern Central and the northernmost South-east Indian Ridge which has resulted in a well-established database for the proposed exploration activities. From 1983 to 2012, the applicant and two German universities sampled extensively and collected data to prepare the prospecting programme, as reported to and duly recorded by the Authority in September 2011, and in the submission of the present application. The applicant stated that it would provide all available data from the former research cruises, as well as from the prospecting activities during cruises INDEX 2011, INDEX 2012 and INDEX 2013.

24. The applicant provided information regarding the planned operation in carrying out the proposed plan of work for exploration, as well as on the methods and instruments to be used for that purpose, including a detailed list of equipment to be deployed each year for the first five-year programme of activities. The methods

and instruments include the research vessel RV *Sonne*, geophysical profiling, photo profiling, bottom sampling, water column sampling, environmental monitoring and new methods for optimizing the exploration results.

25. The applicant provided information related to the prevention, reduction and control of hazards to and possible impacts on the marine environment. The applicant states that exploration activities are designed to avoid any serious, lasting or permanent harm to the marine environment. In the very unlikely case of environmental pollution during exploration, vessels for accident control can be made available. Vessels to be used will conform to the international standards regarding safety and environmental practice, including the International Convention for the Prevention of Pollution from Ships, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). The applicant will comply with the rules, regulations and procedures of the Authority and with the complementary German laws and regulations for the prevention, reduction and control of pollution of the marine environment. The applicant further states that, in terms of the impact of the suggested cruises on the environment, they are considered not to have a significant impact on the seabed. Environmental impact assessments and monitoring of activities that may have adverse impacts on the environment will be conducted. Internationally recognized experts will be invited to take part in the applicant's exploration cruises and international collaboration will be initiated to control such measures for the prevention of damage to the marine environment.

## **VI. Consideration of data and information submitted for approval of the plan of work for exploration**

26. In accordance with regulation 20 of the Regulations, the applicant submitted the following information for approval of the plan of work for exploration:

(a) A general description and schedule of the proposed exploration programme, including the programme of activities for the immediate five-year period;

(b) A description of the programme for oceanographic and environmental baseline studies in accordance with the Regulations and any environmental rules, regulations and procedures established by the Authority that would enable an assessment of the potential environmental impact, including, but not restricted to, the impact on biodiversity of the proposed exploration activities, taking into account any recommendations issued by the Legal and Technical Commission;

(c) A preliminary assessment of the possible impact of the proposed exploration activities on the marine environment;

(d) A description of proposed measures for the prevention, reduction and control of pollution and other hazards, as well as possible impacts on the marine environment;

(e) Data necessary for the Council to make the determination as required by regulation 13, paragraph 1;

(f) A schedule of anticipated yearly expenditures in respect of the programme of activities for the immediate five-year period.

## VII. Training programme

27. The Commission noted that the applicant's proposed training programme included six at-sea training opportunities and a four-month training course for two participants for the immediate five-year period. The applicant also provided detailed information on the objectives and content of the training opportunities. The Commission highlighted the fact that, in developing the training programme, the applicant and the Secretary-General should ensure that the training programme is in line with the Recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration, as developed by the Commission during the nineteenth session ([ISBA/19/LTC/14](#)).

## VIII. Conclusion and recommendations

28. Having examined the particulars submitted by the applicant, summarized in sections III to VII above, the Commission is satisfied that the application has been duly submitted in accordance with the Regulations and that the applicant is a qualified applicant within the meaning of annex III, article 4, of the Convention. The Commission is further satisfied that the applicant:

- (a) Has complied with the provisions of the Regulations;
- (b) Has given the undertakings and assurances specified in regulation 15 of the Regulations;
- (c) Possesses the financial and technical capability to carry out the proposed plan of work for exploration.

29. The Commission is satisfied that none of the conditions in regulation 23 (6) of the Regulations apply.

30. With respect to the proposed plan of work for exploration, the Commission is satisfied that the proposed plan of work for exploration will:

- (a) Provide for effective protection of human health and safety;
- (b) Provide for effective protection and preservation of the marine environment;
- (c) Ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity.

31. Accordingly, pursuant to regulation 23 (5) of the Regulations, the Commission recommends to the Council approval of the plan of work for exploration for polymetallic sulphides submitted by the Federal Institute for Geosciences and Natural Resources, on behalf of the Federal Republic of Germany.

## Annex I

### List of coordinates of the area under application

<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
1	68.57678895	-21.21955579
1	68.66154710	-21.17659568
1	68.62260634	-21.29904664
1	68.70740564	-21.25606681
2	68.66155601	-21.17659928
2	68.74626566	-21.13359583
2	68.70740564	-21.25606681
2	68.79214789	-21.21304113
3	68.56468890	-21.32838088
3	68.64951327	-21.28542839
3	68.69538993	-21.36489966
3	68.61053243	-21.40787443
4	68.64951327	-21.28542839
4	68.73428884	-21.24243231
4	68.78019833	-21.32188122
4	68.69538993	-21.36489966
5	68.73428884	-21.24243231
5	68.81901559	-21.19939290
5	68.86495759	-21.27881938
5	68.78019833	-21.32188122
6	68.61053243	-21.40787443
6	68.69538993	-21.36489966
6	68.74131570	-21.44435822
6	68.65642503	-21.48735543
7	68.69538993	-21.36489966
7	68.78019833	-21.32188122
7	68.82615695	-21.40131726

<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
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8	68.78019833	-21.32188122
8	68.86495759	-21.27881938
8	68.91094876	-21.35823284
8	68.82615695	-21.40131726
9	68.77584503	-21.75143624
9	68.86083881	-21.70838920
9	68.90697920	-21.78779158
9	68.82193491	-21.83087040
10	68.86083881	-21.70838920
10	68.94582265	-21.66528628
10	68.99197505	-21.74466748
10	68.90697920	-21.78779158
11	68.94582265	-21.66528628
11	69.03073276	-21.62214270
11	69.07691954	-21.70150852
11	68.99197279	-21.74466863
12	68.82193491	-21.83087040
12	68.90697181	-21.78777886
12	68.95315140	-21.86718617
12	68.86807547	-21.91029126
13	68.90697920	-21.78779158
13	68.99197279	-21.74466863
13	69.03817982	-21.82404291
13	68.95315140	-21.86718617
14	68.99197279	-21.74466863
14	69.07691954	-21.70150852
14	69.12315543	-21.78085270
14	69.03817270	-21.82403068

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<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
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15	68.98039642	-21.95619939
16	69.01921692	-21.83367374
16	69.10420560	-21.79048425
16	69.15048749	-21.86982355
16	69.06546764	-21.91303948
17	69.01324592	-22.93649252
17	69.10009852	-22.89547110
17	69.14441012	-22.97593592
17	69.05752048	-23.01698235
18	69.10013368	-22.89544699
18	69.18698628	-22.85442556
18	69.23115959	-22.93495688
18	69.14441012	-22.97593592
19	69.18698628	-22.85442556
19	69.27387644	-22.81338006
19	69.31815100	-22.89386988
19	69.23115959	-22.93495688
20	69.05759609	-23.01693958
20	69.14441012	-22.97593592
20	69.18876061	-23.05638355
20	69.10187066	-23.09742940
21	69.14441012	-22.97593592
21	69.23115959	-22.93495688
21	69.27557020	-23.01537611
21	69.18876061	-23.05638355
22	69.23115959	-22.93495688

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<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
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22	69.36246311	-22.97433564
22	69.27557020	-23.01537611
23	69.38133314	-23.83939827
23	69.47012852	-23.80086247
23	69.51206408	-23.88253349
23	69.42322626	-23.92109370
24	69.47012852	-23.80086247
24	69.55887075	-23.76227623
24	69.60084843	-23.84392273
24	69.51206408	-23.88253349
25	69.55887075	-23.76227623
25	69.64755976	-23.72363984
25	69.68957922	-23.80526171
25	69.60084843	-23.84392273
26	69.42322626	-23.92109370
26	69.51206408	-23.88253349
26	69.55405312	-23.96419131
26	69.46517278	-24.00277610
27	69.51206408	-23.88253349
27	69.60084843	-23.84392273
27	69.64287965	-23.92555587
27	69.55405312	-23.96419131
28	69.60084843	-23.84392273
28	69.68957922	-23.80526171
28	69.73165231	-23.88687005
28	69.64287965	-23.92555587
29	69.46517278	-24.00277610
29	69.55405312	-23.96419131



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<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
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30	69.64287965	-23.92555587
30	69.68496477	-24.00717551
30	69.59609595	-24.04583580
31	69.64287965	-23.92555587
31	69.73165231	-23.88687005
31	69.77377936	-23.96846473
31	69.68496477	-24.00717551
32	69.50717298	-24.08444537
32	69.59609592	-24.04583584
32	69.63819292	-24.12746683
32	69.54922727	-24.16610128
33	69.59609592	-24.04583584
33	69.68496477	-24.00717551
33	69.72710408	-24.08878153
33	69.63819292	-24.12746683
34	69.68496477	-24.00717551
34	69.77377936	-23.96846473
34	69.81596071	-24.05004561
34	69.72710409	-24.08878151
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35	70.20568793	-25.18060411
35	70.20568793	-25.27090082
35	70.10675193	-25.27090082
36	70.20568793	-25.18060411
36	70.30462393	-25.18060411
36	70.30462393	-25.27090082

<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
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37	70.10675193	-25.36119753
37	70.00781593	-25.36119753
38	70.10675193	-25.27090082
38	70.20568793	-25.27090082
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38	70.10675193	-25.36119753
39	70.20568793	-25.27090082
39	70.30462393	-25.27090082
39	70.30462393	-25.36119753
39	70.20568793	-25.36119753
40	69.71100793	-25.36119753
40	69.80994393	-25.36119753
40	69.80994393	-25.45149424
40	69.71100793	-25.45149424
41	69.80994393	-25.36119753
41	69.90887993	-25.36119753
41	69.90887993	-25.45149424
41	69.80994393	-25.45149424
42	69.90887993	-25.36119753
42	70.00781593	-25.36119753
42	70.00781593	-25.45149424
42	69.90887993	-25.45149424
43	70.00781593	-25.36119753
43	70.10675193	-25.36119753
43	70.10675193	-25.45149424
43	70.00781593	-25.45149424

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<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
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44	70.20568793	-25.36119753
44	70.20568793	-25.45149424
44	70.10675193	-25.45149424
45	70.20568793	-25.36119753
45	70.30462393	-25.36119753
45	70.30462393	-25.45149424
45	70.20568793	-25.45149424
46	69.71100793	-25.45149424
46	69.80994393	-25.45149424
46	69.80994393	-25.54179095
46	69.71100793	-25.54179095
47	69.80994393	-25.45149424
47	69.90887993	-25.45149424
47	69.90887993	-25.54179095
47	69.80994393	-25.54179095
48	69.90887993	-25.45149424
48	70.00781593	-25.45149424
48	70.00781593	-25.54179095
48	69.90887993	-25.54179095
49	70.05728393	-25.45149424
49	70.15621993	-25.45149424
49	70.15621993	-25.54179095
49	70.05728393	-25.54179095
50	69.71100793	-25.54179095
50	69.80994393	-25.54179095
50	69.80994393	-25.63208766
50	69.71100793	-25.63208766
51	69.80994393	-25.54179095

<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
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51	69.90887993	-25.63208766
51	69.80994393	-25.63208766
52	70.18169605	-25.64999452
52	70.24477007	-25.71996653
52	70.16730644	-25.77697431
52	70.10423242	-25.70700231
53	70.10423242	-25.70700231
53	70.16729970	-25.77697927
53	70.08983823	-25.83398945
53	70.02676879	-25.76397598
54	70.25611566	-25.71162197
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54	70.24171917	-25.83860656
54	70.17867061	-25.76861627
55	70.17865213	-25.76862987
55	70.24171917	-25.83860656
55	70.16425784	-25.89561690
55	70.10118840	-25.82560343
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56	70.39397152	-25.84299059
56	70.31648173	-25.89998177
56	70.25343293	-25.82999121
57	70.25343293	-25.82999121
57	70.31648173	-25.89998177
57	70.23904138	-25.95697641
57	70.17599060	-25.88698366
58	70.40533011	-25.83465712
58	70.46841076	-25.90463648

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<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
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59	70.25039155	-25.94859040
60	70.78254285	-25.95570495
60	70.84561715	-26.02567726
60	70.76814866	-26.08269209
60	70.70507922	-26.01267863
61	70.88433246	-25.99716617
61	70.94749435	-26.06709616
61	70.87004658	-26.12415717
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62	70.98027809	-25.96067660
62	71.04347284	-26.03056281
62	70.96610518	-26.08766686
62	70.90292064	-26.01774616
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63	71.01073231	-26.13699357
63	70.93327384	-26.19408893
63	70.87004658	-26.12415717
64	71.04347284	-26.03056281
64	71.10674476	-26.10041584
64	71.02935966	-26.15755900
64	70.96610518	-26.08766686
65	71.29631067	-26.02571558
65	71.35979782	-26.09540903
65	71.28255329	-26.15272080

<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
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66	71.35878586	-26.21296235
66	71.29530788	-26.14323427
67	71.47280923	-26.05400645
67	71.53633309	-26.12365297
67	71.45916210	-26.18101388
67	71.39565425	-26.11132739
68	71.54989506	-25.99664389
68	71.61342741	-26.06625586
68	71.53633309	-26.12365297
68	71.47280923	-26.05400645
69	71.53633309	-26.12365297
69	71.59993363	-26.19326527
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69	71.45916210	-26.18101388
70	71.61342741	-26.06625586
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70	71.59993363	-26.19326527
70	71.53633309	-26.12365297
71	71.52750209	-26.28980707
71	71.59200281	-26.35879975
71	71.51539869	-26.41693573
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72	71.67944795	-26.41039256
72	71.60285405	-26.46856772
72	71.53827876	-26.39958411

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<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
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74	71.74194681	-26.36282939
74	71.80661139	-26.43175160
74	71.73007486	-26.48999169
74	71.66541161	-26.42106788
75	71.80661139	-26.43175160
75	71.87135924	-26.50060414
75	71.79481365	-26.55887586
75	71.73007486	-26.48999169
76	71.85307581	-26.51453559
76	71.91790078	-26.58336026
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77	71.89195054	-26.72135490
77	71.82705368	-26.65252457
78	71.81847660	-26.30462476
78	71.88314365	-26.37351474
78	71.80661005	-26.43175320
78	71.74194681	-26.36282939
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79	71.88314365	-26.37351474
79	71.81847660	-26.30462476
80	71.91491116	-26.34935400

<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
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81	71.97952555	-26.41828465
81	72.04425046	-26.48713123
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82	72.14668543	-26.95921778
82	72.08230776	-26.88991831
83	72.22396138	-26.90148015
83	72.28832484	-26.97076313
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84	72.23685057	-26.77447389
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84	72.22396138	-26.90148015
84	72.15957460	-26.83221151
85	72.30122697	-26.84377080
85	72.36561142	-26.91303418
85	72.28832484	-26.97076313
85	72.22396014	-26.90147760
86	72.32614911	-26.94252247
86	72.39065872	-27.01165243
86	72.31341616	-27.06949023
86	72.24887420	-27.00028260
87	72.40767062	-26.99891142
87	72.47229758	-27.06803356



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<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
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88	72.47199683	-27.18587875
88	72.40729039	-27.11676022
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89	72.57701664	-27.26476084
90	72.71920747	-27.27570562
90	72.78421105	-27.34463715
90	72.70698460	-27.40268785
90	72.64202106	-27.33372496
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92	72.76409328	-27.18342835
92	72.68691279	-27.24141210
92	72.62209298	-27.17245595
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93	72.82904323	-27.25235520
93	72.75193619	-27.31039634
93	72.68691279	-27.24141210
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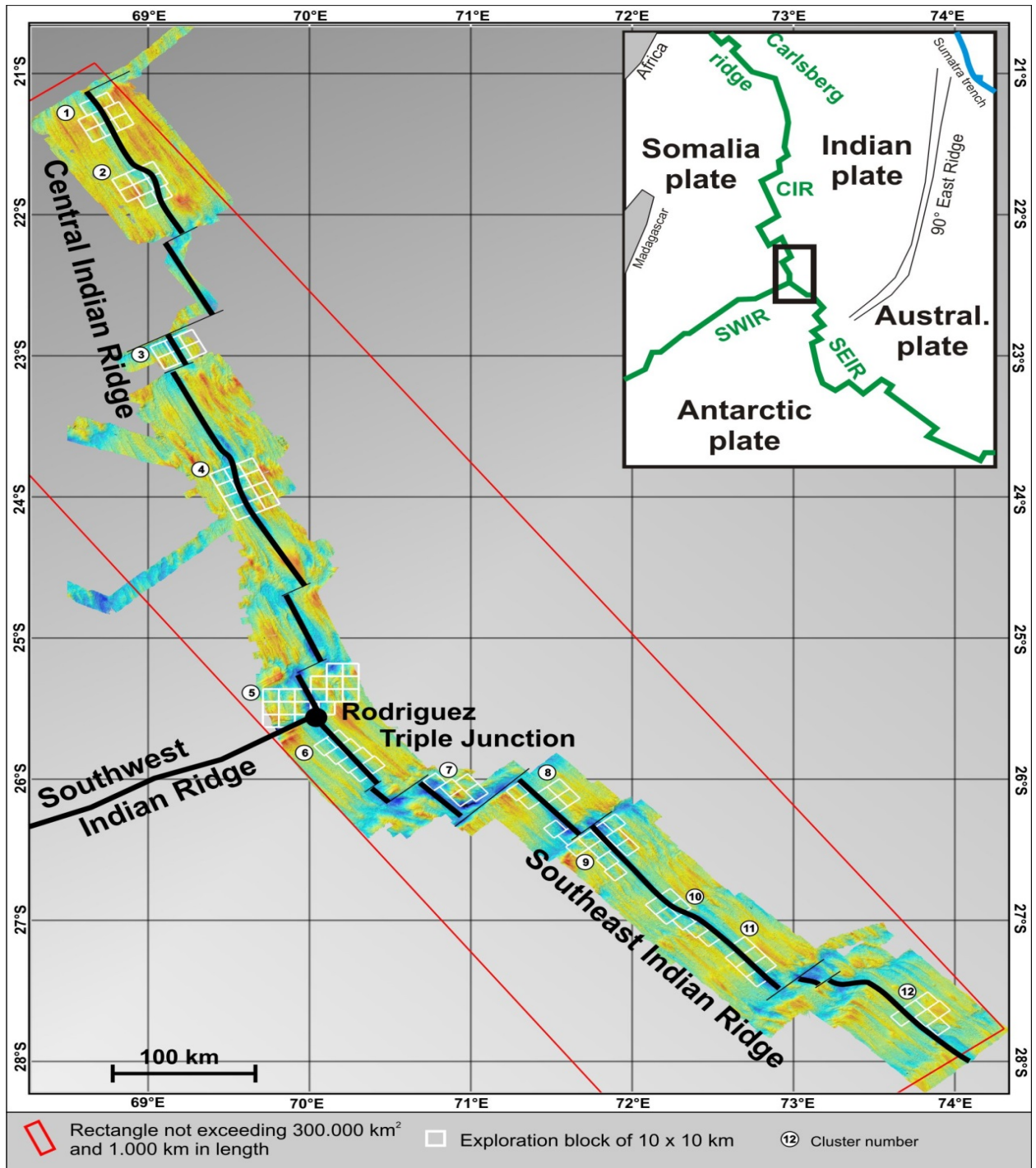
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<i>Block No.</i>	<i>Longitude</i>	<i>Latitude</i>
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96	73.74479318	-27.69235849
96	73.67903628	-27.62395992
97	73.67903628	-27.62395992
97	73.74479318	-27.69235849
97	73.66793373	-27.75091224
97	73.60217801	-27.68247563
98	73.82943914	-27.62776014
98	73.89527910	-27.69607211
98	73.81851418	-27.75470286
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99	73.90612172	-27.56913753
99	73.97196502	-27.63741444
99	73.89527910	-27.69607211
99	73.82943914	-27.62776014
100	73.90374727	-27.68960372
100	73.96967427	-27.75787176
100	73.89291527	-27.81654136
100	73.82698901	-27.74823526

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Annex II

Map of the general location of the area under application





## Council

Distr.: General  
9 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for cobalt-rich ferromanganese crusts by Companhia de Pesquisa de Recursos Minerais**

#### **I. Introduction**

1. On 31 December 2013, the Secretary-General of the International Seabed Authority received an application for the approval of a plan of work for exploration for cobalt-rich ferromanganese crusts in the Area. The application was submitted pursuant to the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area (“the Regulations”, [ISBA/18/A/11](#), annex). The application covers a total surface area of 3,000 square kilometres, located in the Rio Grande Rise in the South Atlantic Ocean.

2. In accordance with regulation 22 (c) of the Regulations, by a note verbale dated 31 December 2013, the Secretary-General notified the members of the International Seabed Authority of the receipt of the application and circulated information of a general nature concerning it. The Secretary-General also placed consideration of the application as an item on the agenda of the meeting of the Legal and Technical Commission held from 3 to 13 February 2014.

#### **II. Methodology for consideration of the application by the Legal and Technical Commission**

##### **A. General methodology applied by the Commission in consideration of the application**

3. In its consideration of the application, the Commission noted that, in keeping with the scheme established in article 6 of annex III to the United Nations Convention on the Law of the Sea, it was first required to make an objective determination as to whether the applicant had fulfilled the requirements contained in



the Regulations, particularly with respect to the form of applications, namely, whether the applicant had provided the necessary undertakings and assurances specified in regulation 15; and whether it had the necessary financial and technical capability to carry out the proposed plan of work for exploration. The Commission is then required to determine, in accordance with regulation 23, paragraph 4, and its procedures, whether the proposed plan of work will provide for effective protection of human health and safety and effective protection and preservation of the marine environment and will ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity. Regulation 23, paragraph 5, provides that if the Commission makes the determinations specified in paragraph 3 and determines that the proposed plan of work for exploration meets the requirements of paragraph 4, the Commission shall recommend approval of the plan of work for exploration to the Council.

4. In considering the proposed plan of work for exploration for cobalt-rich ferromanganese crusts, the Commission took into account the principles, policies and objectives relating to activities in the Area as provided for in Part XI of and annex III to the Convention and in the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea.

## **B. Consideration of the application**

5. The Commission considered the application in closed meetings on 7 and 10 February 2014, and on 8 July 2014.

6. Prior to commencing a detailed examination of the application, the Commission invited the applicant's representative, Roberto Ventura Santos, Director of Geology and Mineral Resources of Companhia de Pesquisa de Recursos Minerais, accompanied by the Permanent Representative of Brazil to the Authority, Antonio Francisco Da Costa e Silva Neto, Eugênio Pires Frazão, Geological Researcher of Companhia de Pesquisa de Recursos Minerais, Claudia Maria Rezende de Souza, Executive Coordinator of the company and José Angel Alvarez Perez, Professor and Researcher at the University of Vale do Rio Doce, to make a presentation of the application. Members of the Commission then asked questions in order to obtain clarification on certain aspects of the application before convening in closed session to examine the application in detail. Following its initial consideration, the Commission decided to request the Chair of the Commission to transmit a list of questions to the applicant in writing through the Secretary-General. The Commission decided to defer consideration of the application and to take it up as a matter of priority at its next meeting in July 2014. The written responses provided by the applicant, which supplemented the equivalent parts of the application as originally submitted, were taken into account by the Commission in its subsequent consideration of it at its meetings in July.

## **III. Summary of basic information regarding the application**

### **A. Identification of the applicant**

7. The name and address of the applicant are as follows:

- (a) Name: Companhia de Pesquisa de Recursos Minerais;
- (b) Street address: SGAN, 603, Conj. J., Parte A, 1º andar, Brasilia, DF, Brazil, Postcode 70830-100;
- (c) Postal address: not applicable;
- (d) Telephone number: +55-61-32259500;
- (e) Facsimile number: +55-61-32253985;
- (f) E-mail address: manael.barretto@cprm.gov.br.

8. The applicant's designated representative is:

- (a) Name: Roberto Ventura Santos, Director of Geology and Mineral Resources of Companhia de Pesquisa de Recursos Minerais;
- (b) Street and postal addresses: same as above;
- (c) Telephone number: +55-61-32231059;
- (d) Facsimile number: +55-61-3224-0687;
- (e) E-mail address: roberto.ventura@cprm.gov.br;
- (f) Applicant's place of registration and principal place of business/domicile: Brasilia, DF, Brazil.

9. The applicant is a State enterprise which operates as the Geological Survey of Brazil, under the scope of the Ministry of Mining and Energy. The applicant was established by National Act No. 764 of 15 August 1969 and was transformed into a State enterprise by Act No. 8970 of 28 December 1994. Its bylaws were approved by Decree No. 1524 of 20 June 1995. The applicant provided a copy of the official registry in the Brazilian Internal Revenue Service, which attests to its existence.

## **B. Sponsorship**

10. The sponsoring State is Brazil.

11. The date of deposit of the sponsoring State's instrument of ratification of the United Nations Convention on the Law of the Sea is 22 December 1988 and the date of the sponsoring State's consent to be bound by the Agreement relating to the implementation of Part XI of the Convention is 25 October 2007.

12. The date of the certificate of sponsorship is 24 December 2013; it was issued by the Minister of External Relations of Brazil, Luiz Alberto Figueiredo Machado.

13. The certificate of sponsorship states that the applicant is a State enterprise under the effective control of the Ministry of Mining and Energy of the Federative Republic of Brazil. It further states that the sponsoring State assumes responsibility for the activities of the applicant in accordance with article 139, paragraph 4, of article 153 of the United Nations Convention on the Law of the Sea and paragraph 4 of article 4 of annex III to the Convention.

### **C. Area under application**

14. The area located on the Rio Grande Rise comprises 150 blocks, each with an area of 20 square kilometres. The blocks are grouped into 8 clusters, each containing from 5 to 56 contiguous blocks. Each block is rectangular or square in shape. All the blocks are located entirely within a geographical area measuring not more than 550 kilometres by 550 kilometres. The coordinates and general location of the area under application are shown in the annex to the present document.

### **D. Other information**

15. The applicant has not been previously awarded any contract with the Authority.

16. In accordance with regulation 15 of the Regulations, the application includes a written undertaking dated 17 December 2013 and signed by Manoel Barreto da Rocha Neto, the applicant's Director President.

17. The applicant elects to offer an equity interest in a joint venture arrangement, in accordance with regulation 19.

18. The applicant has paid a fee of \$500,000 in accordance with regulation 21.

## **IV. Examination of information and technical data submitted by the applicant**

19. The following technical documents and information were provided:

- (a) Information relating to the area under application;
- (i) Charts of the location of the blocks;
- (ii) A list of the coordinates of blocks under application, in accordance with the World Geodetic System 1984;
- (b) A certificate of sponsorship;
- (c) Information to enable the Council to determine whether the applicant is financially capable of carrying out the proposed plan of work for exploration;
- (d) Information to enable the Council to determine whether the applicant is technically capable of carrying out the proposed plan of work for exploration;
- (e) Plan of work for exploration;
- (f) Training programme;
- (g) Written undertakings by the applicant.

## **V. Consideration of financial and technical qualifications of the applicant**

### **A. Financial capacity**

20. The applicant declared its financial capacity to carry out the proposed plan of work for exploration and fulfilled its financial obligations to the Authority. The Commission noted that the applicant provided a financial statement dated 24 December 2013 duly signed by the Minister of External Relations of Brazil, Luiz Alberto Figueiredo Machado.

### **B. Technical capacity**

21. The applicant states that it has been conducting scientific and technologic research activities in the field of geology for over 40 years, both in Brazil and overseas. With respect to marine geology, the applicant participated in specific programmes for marine research on mineral resources, such as the Programme for Prospecting and Exploration of Mineral Resources in the international seabed area of the South and Equatorial Atlantic and the Programme for the Assessment of the Mineral Potential of the Brazilian Legal Continental Shelf. Since 2009, the sponsoring State has been developing activities related to marine geology and biodiversity in the South Atlantic, including on the prominent feature of Rio Grande Rise.

22. The Commission noted that the applicant also provided details concerning the equipment, such as research vessels, geological and geophysical sampling equipment, remotely operated vehicles and autonomous submersibles, as well as methods that will be used to carry out the proposed plan of work for exploration. The applicant provided detailed information on its geological and environmental sampling survey objectives and strategies and monitoring activities on the flat areas, but also on the rift zone for environmental purposes only, including the assessment of vulnerable marine ecosystems and the delineation of preservation reference areas. The applicant stated that it would deposit annually data products related to the proposed plan of work for exploration. The applicant further stated that it would adopt a precautionary approach in the planning of an environmental baseline study and geological sampling strategies in order to avoid or minimize unforeseen harmful impact to the environment.

23. The applicant also provided information related to the prevention, reduction and control of hazards and possible impacts to the marine environment. The applicant stated that it had the capacity to respond to any incidents and activities that may potentially cause serious damage to the marine environment. The applicant has adopted internationally accepted measures to prevent, reduce and control pollution of the marine environment as set out, in particular, in the Convention for the Prevention of Pollution from Ships (MARPOL [73/78](#)). The applicant also indicated that it managed environmental programmes, such as the national programme for research in environmental geochemistry and medical geology, the national centre for risk and disaster management plan, and the national risk management and disaster response.



## **VI. Consideration of data and information submitted for approval of the plan of work for exploration**

24. In accordance with regulation 20 of the Regulations, the application included the following information for approval of the plan of work for exploration:

(a) A general description and a schedule of the proposed exploration programme, including the programme of activities for the immediate five-year period, such as studies to be undertaken in respect of the environmental, technical, economic and other appropriate factors that must be taken into account in exploration;

(b) A description of the programme for oceanographic and environmental baseline studies in accordance with those Regulations and any environmental rules, regulations and procedures established by the Authority that would enable an assessment of the potential environmental impact, including, but not restricted to, the impact on biodiversity, of the proposed exploration activities, taking into account any recommendations issued by the Legal and Technical Commission;

(c) A preliminary assessment of the possible impact of the proposed exploration activities on the marine environment;

(d) A description of proposed measures for the prevention, reduction and control of pollution and other hazards, as well as possible impacts, to the marine environment;

(e) Data necessary for the Council to make the determination it is required to make in accordance with regulation 13 (1);

(f) A schedule of anticipated yearly expenditures in respect of the programme of activities for the immediate five-year period.

## **VII. Training programme**

25. The Commission noted that the applicant provided a detailed proposal which would offer up to 10 opportunities for the first five-year programme of activities. The proposed programme also includes details of the content, objectives and schedule of training opportunities. The Commission highlighted the fact that, in developing the training programme, the applicant and the Secretary-General should ensure that the training programme is in line with the Recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration, as developed by the Commission during the nineteenth session ([ISBA/19/LTC/14](#)).

## **VIII. Conclusion and recommendations**

26. Having examined the particulars submitted by the applicant, which are summarized in sections III to VII above, the Commission is satisfied that the application has been duly submitted in accordance with the Regulations and that the applicant:

(a) Has complied with the provisions of the Regulations;

(b) Has given the undertakings and assurances specified in regulation 15 of the Regulations;

(c) Possesses the financial and technical capability to carry out the proposed plan of work for exploration.

27. The Commission states that none of the conditions in regulation 23, paragraph 6, of the Regulations apply.

28. With respect to the proposed plan of work for exploration, the Commission is satisfied that the proposed plan of work for exploration will:

(a) Provide for effective protection of human health and safety;

(b) Provide for effective protection and preservation of the marine environment;

(c) Ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity.

29. Accordingly, pursuant to regulation 23, paragraph 5, of the Regulations, the Commission recommends to the Council approval of the plan of work for exploration submitted by Companhia de Pesquisa de Recursos Minerais.

## Annex I

### List of coordinates of the area under application

List of coordinates of the blocks under application (in accordance with the World Geodetic System 84)

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
66	20	SECTOR 1	-30.78144705	-36.06689483
66	20	SECTOR 1	-30.78020124	-36.11907393
66	20	SECTOR 1	-30.74416066	-36.11791094
66	20	SECTOR 1	-30.74540471	-36.06575123
66	20	SECTOR 1	-30.78144706	-36.06689483
67	20	SECTOR 1	-30.78267192	-36.01471252
67	20	SECTOR 1	-30.78144706	-36.06689483
67	20	SECTOR 1	-30.74540471	-36.06575123
67	20	SECTOR 1	-30.74662783	-36.01358829
67	20	SECTOR 1	-30.78267192	-36.01471252
71	20	SECTOR 1	-30.72487621	-36.16947702
71	20	SECTOR 1	-30.72228538	-36.27376053
71	20	SECTOR 1	-30.70426769	-36.27315135
71	20	SECTOR 1	-30.70557263	-36.22102095
71	20	SECTOR 1	-30.70685667	-36.16888717
71	20	SECTOR 1	-30.72487621	-36.16947702
72	20	SECTOR 1	-30.74416067	-36.11791094
72	20	SECTOR 1	-30.7428957	-36.17006739
72	20	SECTOR 1	-30.72487621	-36.16947702
72	20	SECTOR 1	-30.70685667	-36.16888717
72	20	SECTOR 1	-30.70811984	-36.11675006
72	20	SECTOR 1	-30.74416067	-36.11791094
73	20	SECTOR 1	-30.74540471	-36.06575123
73	20	SECTOR 1	-30.74416067	-36.11791094

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
73	20	SECTOR 1	-30.70811984	-36.11675006
73	20	SECTOR 1	-30.70936212	-36.06460969
73	20	SECTOR 1	-30.74540471	-36.06575123
79	20	SECTOR 1	-30.70557263	-36.22102095
79	20	SECTOR 1	-30.7042677	-36.27315135
79	20	SECTOR 1	-30.66823212	-36.27193466
79	20	SECTOR 1	-30.66953519	-36.21982354
79	20	SECTOR 1	-30.70557263	-36.22102095
80	20	SECTOR 1	-30.70685667	-36.16888717
80	20	SECTOR 1	-30.70557263	-36.22102095
80	20	SECTOR 1	-30.66953519	-36.21982354
80	20	SECTOR 1	-30.67081741	-36.16770906
80	20	SECTOR 1	-30.70685667	-36.16888717
81	20	SECTOR 1	-30.70811984	-36.11675006
81	20	SECTOR 1	-30.70685667	-36.16888717
81	20	SECTOR 1	-30.67081741	-36.16770906
81	20	SECTOR 1	-30.67207878	-36.11559126
81	20	SECTOR 1	-30.70811984	-36.11675006
82	20	SECTOR 1	-30.70936212	-36.06460969
82	20	SECTOR 1	-30.70811984	-36.11675006
82	20	SECTOR 1	-30.67207878	-36.11559126
82	20	SECTOR 1	-30.67331928	-36.0634702
82	20	SECTOR 1	-30.70936212	-36.06460969
83	20	SECTOR 1	-30.66823212	-36.27193466
83	20	SECTOR 1	-30.6669082	-36.32404234
83	20	SECTOR 1	-30.63087427	-36.32280858
83	20	SECTOR 1	-30.6321963	-36.27072014
83	20	SECTOR 1	-30.66823212	-36.27193466
84	20	SECTOR 1	-30.66953519	-36.21982354

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
84	20	SECTOR 1	-30.66823212	-36.27193466
84	20	SECTOR 1	-30.6321963	-36.27072014
84	20	SECTOR 1	-30.63349751	-36.2186283
84	20	SECTOR 1	-30.66953519	-36.21982354
85	20	SECTOR 1	-30.67081741	-36.16770906
85	20	SECTOR 1	-30.66953519	-36.21982354
85	20	SECTOR 1	-30.63349751	-36.2186283
85	20	SECTOR 1	-30.63477791	-36.16653308
85	20	SECTOR 1	-30.67081741	-36.16770906
86	20	SECTOR 1	-30.67207878	-36.11559126
86	20	SECTOR 1	-30.67081741	-36.16770906
86	20	SECTOR 1	-30.63477791	-36.16653308
86	20	SECTOR 1	-30.63603748	-36.11443455
86	20	SECTOR 1	-30.67207878	-36.11559126
87	20	SECTOR 1	-30.62953142	-36.37489354
87	20	SECTOR 1	-30.62816778	-36.42697498
87	20	SECTOR 1	-30.59213747	-36.42570501
87	20	SECTOR 1	-30.59349917	-36.37364278
87	20	SECTOR 1	-30.62953142	-36.37489354
88	20	SECTOR 1	-30.63087427	-36.32280858
88	20	SECTOR 1	-30.62953142	-36.37489354
88	20	SECTOR 1	-30.59349917	-36.37364278
88	20	SECTOR 1	-30.5948401	-36.32157704
88	20	SECTOR 1	-30.63087427	-36.32280858
89	20	SECTOR 1	-30.6321963	-36.27072014
89	20	SECTOR 1	-30.63087427	-36.32280858
89	20	SECTOR 1	-30.5948401	-36.32157704
89	20	SECTOR 1	-30.59616024	-36.26950783
89	20	SECTOR 1	-30.6321963	-36.27072014

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
90	20	SECTOR 1	-30.63349751	-36.2186283
90	20	SECTOR 1	-30.6321963	-36.27072014
90	20	SECTOR 1	-30.59616024	-36.26950783
90	20	SECTOR 1	-30.59745959	-36.2174352
90	20	SECTOR 1	-30.63349751	-36.2186283
91	20	SECTOR 1	-30.59349917	-36.37364278
91	20	SECTOR 1	-30.59213747	-36.42570501
91	20	SECTOR 1	-30.55610691	-36.42443733
91	20	SECTOR 1	-30.55746666	-36.37239427
91	20	SECTOR 1	-30.59349917	-36.37364278
92	20	SECTOR 1	-30.5948401	-36.32157704
92	20	SECTOR 1	-30.59349918	-36.37364278
92	20	SECTOR 1	-30.55746667	-36.37239427
92	20	SECTOR 1	-30.55880568	-36.32034772
92	20	SECTOR 1	-30.5948401	-36.32157704
93	20	SECTOR 1	-30.59616025	-36.26950783
93	20	SECTOR 1	-30.5948401	-36.32157704
93	20	SECTOR 1	-30.55880568	-36.32034772
93	20	SECTOR 1	-30.56012395	-36.26829769
93	20	SECTOR 1	-30.59616025	-36.26950783
94	20	SECTOR 1	-30.5974596	-36.2174352
94	20	SECTOR 1	-30.59616025	-36.26950783
94	20	SECTOR 1	-30.56012395	-36.26829769
94	20	SECTOR 1	-30.56142144	-36.21624426
94	20	SECTOR 1	-30.5974596	-36.2174352
95	20	SECTOR 1	-30.57170821	-36.16448021
95	20	SECTOR 1	-30.59873817	-36.16535921
95	20	SECTOR 1	-30.5974596	-36.2174352
95	20	SECTOR 1	-30.56142144	-36.21624426

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
95	20	SECTOR 1	-30.56269819	-36.16418747
95	20	SECTOR 1	-30.57170821	-36.16448021
96	20	SECTOR 1	-30.55746667	-36.37239427
96	20	SECTOR 1	-30.55610691	-36.42443733
96	20	SECTOR 1	-30.54114542	-36.4239116
96	20	SECTOR 1	-30.5200761	-36.42317193
96	20	SECTOR 1	-30.52143391	-36.37114803
96	20	SECTOR 1	-30.55746667	-36.37239427
97	20	SECTOR 1	-30.56269819	-36.16418747
97	20	SECTOR 1	-30.56142144	-36.21624426
97	20	SECTOR 1	-30.52538305	-36.21505546
97	20	SECTOR 1	-30.52665796	-36.16301783
97	20	SECTOR 1	-30.56269819	-36.16418747
98	20	SECTOR 1	-30.572715	-36.12282855
98	20	SECTOR 1	-30.57170821	-36.16448021
98	20	SECTOR 1	-30.56269819	-36.16418747
98	20	SECTOR 1	-30.52665796	-36.16301783
98	20	SECTOR 1	-30.52766296	-36.12138535
98	20	SECTOR 1	-30.572715	-36.12282855
99	20	SECTOR 1	-30.5200761	-36.42317193
99	20	SECTOR 1	-30.54114542	-36.4239116
99	20	SECTOR 1	-30.53976573	-36.47594313
99	20	SECTOR 1	-30.5037368	-36.47465956
99	20	SECTOR 1	-30.5051145	-36.42264716
99	20	SECTOR 1	-30.5200761	-36.42317193
100	20	SECTOR 1	-30.52143391	-36.37114803
100	20	SECTOR 1	-30.5200761	-36.42317193
100	20	SECTOR 1	-30.5051145	-36.42264716
100	20	SECTOR 1	-30.48404505	-36.42190881

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
100	20	SECTOR 1	-30.48540092	-36.36990402
100	20	SECTOR 1	-30.52143391	-36.37114803
101	20	SECTOR 1	-30.5037368	-36.47465956
101	20	SECTOR 1	-30.50233841	-36.52666835
101	20	SECTOR 1	-30.46631122	-36.52536801
101	20	SECTOR 1	-30.46770761	-36.47337831
101	20	SECTOR 1	-30.5037368	-36.47465956
102	20	SECTOR 1	-30.48404505	-36.42190881
102	20	SECTOR 1	-30.5051145	-36.42264716
102	20	SECTOR 1	-30.5037368	-36.47465956
102	20	SECTOR 1	-30.46770761	-36.47337831
102	20	SECTOR 1	-30.46908335	-36.42138499
102	20	SECTOR 1	-30.48404505	-36.42190881
103	20	SECTOR 1	-30.48540092	-36.36990402
103	20	SECTOR 1	-30.48404505	-36.42190881
103	20	SECTOR 1	-30.46908336	-36.42138499
103	20	SECTOR 1	-30.44801375	-36.42064798
103	20	SECTOR 1	-30.44936769	-36.36866225
103	20	SECTOR 1	-30.48540093	-36.36990402
104	20	SECTOR 1	-30.48673612	-36.31789572
104	20	SECTOR 1	-30.48540093	-36.36990402
104	20	SECTOR 1	-30.44936769	-36.36866225
104	20	SECTOR 1	-30.45070097	-36.31667303
104	20	SECTOR 1	-30.48673612	-36.31789572
105	20	SECTOR 1	-30.46770762	-36.47337831
105	20	SECTOR 1	-30.46631122	-36.52536801
105	20	SECTOR 1	-30.43028378	-36.52407002
105	20	SECTOR 1	-30.43167818	-36.47209936
105	20	SECTOR 1	-30.46770762	-36.47337831



<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
106	20	SECTOR 1	-30.44801375	-36.42064798
106	20	SECTOR 1	-30.46908336	-36.42138499
106	20	SECTOR 1	-30.46770762	-36.47337831
106	20	SECTOR 1	-30.43167818	-36.47209936
106	20	SECTOR 1	-30.43305195	-36.4201251
106	20	SECTOR 1	-30.44801375	-36.42064798
107	20	SECTOR 1	-30.44936769	-36.36866225
107	20	SECTOR 1	-30.44801375	-36.42064798
107	20	SECTOR 1	-30.43305195	-36.4201251
107	20	SECTOR 1	-30.41198221	-36.41938942
107	20	SECTOR 1	-30.41333421	-36.36742273
107	20	SECTOR 1	-30.44936769	-36.36866225
108	20	SECTOR 1	-30.45070097	-36.31667303
108	20	SECTOR 1	-30.44936769	-36.36866225
108	20	SECTOR 1	-30.41333421	-36.36742273
108	20	SECTOR 1	-30.41466558	-36.31545255
108	20	SECTOR 1	-30.45070097	-36.31667303
109	20	SECTOR 1	-30.50528226	-36.29769977
109	20	SECTOR 1	-30.5047536	-36.31850788
109	20	SECTOR 1	-30.48673612	-36.31789572
109	20	SECTOR 1	-30.45070097	-36.31667303
109	20	SECTOR 1	-30.41466558	-36.31545255
109	20	SECTOR 1	-30.41519235	-36.2946635
109	20	SECTOR 1	-30.50528226	-36.29769977
111	20	SECTOR 1	-30.43167818	-36.47209936
111	20	SECTOR 1	-30.43028378	-36.52407002
111	20	SECTOR 1	-30.3942561	-36.52277437
111	20	SECTOR 1	-30.3956485	-36.47082273
111	20	SECTOR 1	-30.43167818	-36.47209936

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
112	20	SECTOR 1	-30.41198221	-36.41938942
112	20	SECTOR 1	-30.43305195	-36.4201251
112	20	SECTOR 1	-30.43167818	-36.47209936
112	20	SECTOR 1	-30.3956485	-36.47082273
112	20	SECTOR 1	-30.3970203	-36.41886748
112	20	SECTOR 1	-30.41198221	-36.41938942
113	20	SECTOR 1	-30.41333421	-36.36742273
113	20	SECTOR 1	-30.41198221	-36.41938942
113	20	SECTOR 1	-30.3970203	-36.41886748
113	20	SECTOR 1	-30.37595041	-36.41813313
113	20	SECTOR 1	-30.37730047	-36.36618544
113	20	SECTOR 1	-30.41333421	-36.36742273
115	20	SECTOR 1	-30.3942561	-36.52277437
115	20	SECTOR 1	-30.39284307	-36.57472237
115	20	SECTOR 1	-30.37400958	-36.57403604
115	20	SECTOR 1	-30.35681717	-36.57341008
115	20	SECTOR 1	-30.35822816	-36.52148106
115	20	SECTOR 1	-30.3942561	-36.52277437
116	20	SECTOR 1	-30.3956485	-36.47082273
116	20	SECTOR 1	-30.3942561	-36.52277437
116	20	SECTOR 1	-30.35822816	-36.52148106
116	20	SECTOR 1	-30.35961857	-36.46954839
116	20	SECTOR 1	-30.3956485	-36.47082273
117	20	SECTOR 1	-30.37595041	-36.41813313
117	20	SECTOR 1	-30.3970203	-36.41886748
117	20	SECTOR 1	-30.3956485	-36.47082273
117	20	SECTOR 1	-30.35961857	-36.46954839
117	20	SECTOR 1	-30.36098841	-36.41761213
117	20	SECTOR 1	-30.37595041	-36.41813313

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
118	20	SECTOR 1	-30.35681717	-36.57341008
118	20	SECTOR 1	-30.37400958	-36.57403604
118	20	SECTOR 1	-30.37257704	-36.6259704
118	20	SECTOR 1	-30.33655305	-36.6246404
118	20	SECTOR 1	-30.33678314	-36.61634043
118	20	SECTOR 1	-30.33798354	-36.57272499
118	20	SECTOR 1	-30.35681717	-36.57341008
120	20	SECTOR 1	-30.35822816	-36.52148106
120	20	SECTOR 1	-30.35681717	-36.57341008
120	20	SECTOR 1	-30.33798354	-36.57272499
120	20	SECTOR 1	-30.32079101	-36.57210016
120	20	SECTOR 1	-30.32219998	-36.52019008
120	20	SECTOR 1	-30.35822816	-36.52148106
121	20	SECTOR 1	-30.35961857	-36.46954839
121	20	SECTOR 1	-30.35822816	-36.52148106
121	20	SECTOR 1	-30.32219998	-36.52019008
121	20	SECTOR 1	-30.32358839	-36.46827636
121	20	SECTOR 1	-30.35961857	-36.46954839
122	20	SECTOR 1	-30.36098841	-36.41761213
122	20	SECTOR 1	-30.35961857	-36.46954839
122	20	SECTOR 1	-30.32358839	-36.46827636
122	20	SECTOR 1	-30.32495626	-36.41635905
122	20	SECTOR 1	-30.36098841	-36.41761213
123	20	SECTOR 1	-30.33678314	-36.61634043
123	20	SECTOR 1	-30.33655305	-36.6246404
123	20	SECTOR 1	-30.3353354	-36.6682527
123	20	SECTOR 1	-30.31960638	-36.66766577
123	20	SECTOR 1	-30.2993129	-36.66690921
123	20	SECTOR 1	-30.30075856	-36.61501585

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
123	20	SECTOR 1	-30.33678314	-36.61634043
125	20	SECTOR 1	-30.2993129	-36.66690921
125	20	SECTOR 1	-30.31960638	-36.66766577
125	20	SECTOR 1	-30.31813902	-36.71956598
125	20	SECTOR 1	-30.28211851	-36.71820467
125	20	SECTOR 1	-30.28329237	-36.67669991
125	20	SECTOR 1	-30.28358378	-36.66632335
125	20	SECTOR 1	-30.2993129	-36.66690921
126	20	SECTOR 1	-30.28211851	-36.71820467
126	20	SECTOR 1	-30.28063276	-36.77008216
126	20	SECTOR 1	-30.24461414	-36.76870445
126	20	SECTOR 1	-30.24531174	-36.74441041
126	20	SECTOR 1	-30.24609776	-36.71684582
126	20	SECTOR 1	-30.28211851	-36.71820467
127	20	SECTOR 1	-30.28329237	-36.67669991
127	20	SECTOR 1	-30.28211851	-36.71820467
127	20	SECTOR 1	-30.24609776	-36.71684582
127	20	SECTOR 1	-30.23709254	-36.71650648
127	20	SECTOR 1	-30.23826428	-36.67502058
127	20	SECTOR 1	-30.28329237	-36.67669991
130	20	SECTOR 1	-30.24531174	-36.74441041
130	20	SECTOR 1	-30.24461414	-36.76870445
130	20	SECTOR 1	-30.24381723	-36.79626698
130	20	SECTOR 1	-30.20779951	-36.79488177
130	20	SECTOR 1	-30.20928531	-36.74327292
130	20	SECTOR 1	-30.20929186	-36.74304401
130	20	SECTOR 1	-30.24531174	-36.74441041
133	20	SECTOR 1	-30.21405848	-36.88876327
133	20	SECTOR 1	-30.2125083	-36.94059463

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
133	20	SECTOR 1	-30.17649655	-36.93915863
133	20	SECTOR 1	-30.1780445	-36.88734605
133	20	SECTOR 1	-30.21405848	-36.88876327
134	20	SECTOR 1	-30.20628001	-36.84694451
134	20	SECTOR 1	-30.21528391	-36.8472953
134	20	SECTOR 1	-30.21405848	-36.88876327
134	20	SECTOR 1	-30.1780445	-36.88734605
134	20	SECTOR 1	-30.16904097	-36.88699214
134	20	SECTOR 1	-30.1702642	-36.84554294
134	20	SECTOR 1	-30.20628001	-36.84694451
135	20	SECTOR 1	-30.20779287	-36.79511067
135	20	SECTOR 1	-30.20628001	-36.84694451
135	20	SECTOR 1	-30.1702642	-36.84554294
135	20	SECTOR 1	-30.17177489	-36.79372787
135	20	SECTOR 1	-30.20779287	-36.79511067
136	20	SECTOR 1	-30.20928531	-36.74327292
136	20	SECTOR 1	-30.20779951	-36.79488177
136	20	SECTOR 1	-30.20779287	-36.79511067
136	20	SECTOR 1	-30.17177489	-36.79372787
136	20	SECTOR 1	-30.17326519	-36.7419089
136	20	SECTOR 1	-30.20928531	-36.74327292
138	20	SECTOR 1	-30.17177489	-36.79372787
138	20	SECTOR 1	-30.1702642	-36.84554294
138	20	SECTOR 1	-30.13424815	-36.84414389
138	20	SECTOR 1	-30.13575667	-36.79234758
138	20	SECTOR 1	-30.17177489	-36.79372787

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
110	20	SECTOR 2	-30.46583966	-35.9448277
110	20	SECTOR 2	-30.4648928	-35.98644073
110	20	SECTOR 2	-30.41983427	-35.98506642
110	20	SECTOR 2	-30.42050908	-35.95542968
110	20	SECTOR 2	-30.42077943	-35.94347247
110	20	SECTOR 2	-30.46583966	-35.9448277
114	20	SECTOR 2	-30.42050908	-35.95542968
114	20	SECTOR 2	-30.41983427	-35.98506642
114	20	SECTOR 2	-30.41932082	-36.00742111
114	20	SECTOR 2	-30.38327447	-36.0063157
114	20	SECTOR 2	-30.38426601	-35.96294777
114	20	SECTOR 2	-30.38446103	-35.95434332
114	20	SECTOR 2	-30.42050908	-35.95542968
119	20	SECTOR 2	-30.38426601	-35.96294777
119	20	SECTOR 2	-30.38327447	-36.0063157
119	20	SECTOR 2	-30.38307604	-36.01491964
119	20	SECTOR 2	-30.34702973	-36.01381309
119	20	SECTOR 2	-30.34738889	-35.99820501
119	20	SECTOR 2	-30.348218	-35.96186022
119	20	SECTOR 2	-30.38426601	-35.96294777
124	20	SECTOR 2	-30.34738889	-35.99820501
124	20	SECTOR 2	-30.34702973	-36.01381309
124	20	SECTOR 2	-30.34618621	-36.05015569
124	20	SECTOR 2	-30.32726163	-36.04956856
124	20	SECTOR 2	-30.31014088	-36.04903787
124	20	SECTOR 2	-30.31134184	-35.99710615
124	20	SECTOR 2	-30.34738889	-35.99820501
128	20	SECTOR 2	-30.28386412	-36.06900568
128	20	SECTOR 2	-30.28263563	-36.12091942

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
128	20	SECTOR 2	-30.26043517	-36.12021649
128	20	SECTOR 2	-30.24659236	-36.11977858
128	20	SECTOR 2	-30.24781908	-36.06788375
128	20	SECTOR 2	-30.28386413	-36.06900568
129	20	SECTOR 2	-30.31014089	-36.04903787
129	20	SECTOR 2	-30.32726164	-36.04956856
129	20	SECTOR 2	-30.32677517	-36.07034397
129	20	SECTOR 2	-30.28386414	-36.06900568
129	20	SECTOR 2	-30.2478191	-36.06788375
129	20	SECTOR 2	-30.23666285	-36.06753692
129	20	SECTOR 2	-30.23714758	-36.04678043
129	20	SECTOR 2	-30.3101409	-36.04903787
131	20	SECTOR 2	-30.24659238	-36.11977858
131	20	SECTOR 2	-30.26043519	-36.12021649
131	20	SECTOR 2	-30.25918727	-36.17211535
131	20	SECTOR 2	-30.2400847	-36.17150111
131	20	SECTOR 2	-30.22314564	-36.17095692
131	20	SECTOR 2	-30.22439178	-36.11907693
131	20	SECTOR 2	-30.24659238	-36.11977858
132	20	SECTOR 2	-30.22314564	-36.17095692
132	20	SECTOR 2	-30.2400847	-36.17150111
132	20	SECTOR 2	-30.23881723	-36.22338669
132	20	SECTOR 2	-30.2027773	-36.22221051
132	20	SECTOR 2	-30.20337161	-36.19796011
132	20	SECTOR 2	-30.20404295	-36.17034378
132	20	SECTOR 2	-30.22314564	-36.17095692
137	20	SECTOR 2	-30.20337161	-36.19796011
137	20	SECTOR 2	-30.2027773	-36.22221051
137	20	SECTOR 2	-30.20209506	-36.24982508

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
137	20	SECTOR 2	-30.16605589	-36.24864101
137	20	SECTOR 2	-30.16625628	-36.24054524
137	20	SECTOR 2	-30.1673306	-36.19679486
137	20	SECTOR 2	-30.20337161	-36.19796011
139	20	SECTOR 2	-30.16625628	-36.24054524
139	20	SECTOR 2	-30.16605589	-36.24864101
139	20	SECTOR 2	-30.16496432	-36.29238857
139	20	SECTOR 2	-30.12892647	-36.29119079
139	20	SECTOR 2	-30.12967225	-36.2613328
139	20	SECTOR 2	-30.13021657	-36.23936624
139	20	SECTOR 2	-30.16625628	-36.24054524
140	20	SECTOR 2	-30.12967225	-36.2613328
140	20	SECTOR 2	-30.12892647	-36.29119079
140	20	SECTOR 2	-30.1283735	-36.31315592
140	20	SECTOR 2	-30.09233621	-36.31195237
140	20	SECTOR 2	-30.09363308	-36.26014799
140	20	SECTOR 2	-30.12967225	-36.2613328
141	20	SECTOR 2	-30.09233621	-36.31195237
141	20	SECTOR 2	-30.09101897	-36.36375334
141	20	SECTOR 2	-30.05498332	-36.36253325
141	20	SECTOR 2	-30.05539578	-36.34638222
141	20	SECTOR 2	-30.05629867	-36.31075099
141	20	SECTOR 2	-30.09233621	-36.31195237
142	20	SECTOR 2	-30.05539578	-36.34638222
142	20	SECTOR 2	-30.05498332	-36.36253325
142	20	SECTOR 2	-30.05406644	-36.39816213
142	20	SECTOR 2	-30.01803189	-36.3969314
142	20	SECTOR 2	-30.01844292	-36.38098817
142	20	SECTOR 2	-30.0193593	-36.34517017



<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
142	20	SECTOR 2	-30.05539578	-36.34638222
143	20	SECTOR 2	-30.01844292	-36.38098817
143	20	SECTOR 2	-30.01803189	-36.3969314
143	20	SECTOR 2	-30.01710145	-36.43274701
143	20	SECTOR 2	-29.981068	-36.43150562
143	20	SECTOR 2	-29.98240752	-36.37976542
143	20	SECTOR 2	-30.01844292	-36.38098817
144	20	SECTOR 2	-29.981068	-36.43150562
144	20	SECTOR 2	-30.01710145	-36.43274701
144	20	SECTOR 2	-30.01655919	-36.45344955
144	20	SECTOR 2	-29.99552163	-36.45272016
144	20	SECTOR 2	-29.92647703	-36.45033171
144	20	SECTOR 2	-29.92701736	-36.42964775
144	20	SECTOR 2	-29.981068	-36.43150562
145	20	SECTOR 2	-29.92647703	-36.45033171
145	20	SECTOR 2	-29.99552163	-36.45272016
145	20	SECTOR 2	-29.99497657	-36.47341779
145	20	SECTOR 2	-29.92652793	-36.47103574
145	20	SECTOR 2	-29.90489603	-36.47028466
145	20	SECTOR 2	-29.90543913	-36.44960561
145	20	SECTOR 2	-29.92647703	-36.45033171
146	20	SECTOR 2	-29.90489603	-36.47028466
146	20	SECTOR 2	-29.92652793	-36.47103574
146	20	SECTOR 2	-29.92515488	-36.52274204
146	20	SECTOR 2	-29.88912437	-36.52147285
146	20	SECTOR 2	-29.89049544	-36.46978511
146	20	SECTOR 2	-29.90489603	-36.47028466
147	20	SECTOR 2	-29.89049544	-36.46978511
147	20	SECTOR 2	-29.88912437	-36.52147285

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
147	20	SECTOR 2	-29.85309362	-36.52020597
147	20	SECTOR 2	-29.85341857	-36.50801132
147	20	SECTOR 2	-29.8544627	-36.46853673
147	20	SECTOR 2	-29.89049544	-36.46978511
148	20	SECTOR 2	-29.85478289	-36.45634124
148	20	SECTOR 2	-29.8544627	-36.46853673
148	20	SECTOR 2	-29.85341857	-36.50801132
148	20	SECTOR 2	-29.8173871	-36.5067511
148	20	SECTOR 2	-29.81874945	-36.45509948
148	20	SECTOR 2	-29.85478289	-36.45634124
149	20	SECTOR 2	-29.82009166	-36.40344435
149	20	SECTOR 2	-29.81874945	-36.45509948
149	20	SECTOR 2	-29.78271575	-36.45385998
149	20	SECTOR 2	-29.78405602	-36.4022233
149	20	SECTOR 2	-29.82009166	-36.40344435
150	20	SECTOR 2	-29.78405602	-36.4022233
150	20	SECTOR 2	-29.78271575	-36.45385998
150	20	SECTOR 2	-29.74668182	-36.45262273
150	20	SECTOR 2	-29.74802014	-36.40100445
150	20	SECTOR 2	-29.78405602	-36.4022233
<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
45	20	SECTOR 3	-30.95300091	-35.02456932
45	20	SECTOR 3	-30.95620884	-35.024637
45	20	SECTOR 3	-30.95537837	-35.07695384
45	20	SECTOR 3	-30.91930891	-35.07617383
45	20	SECTOR 3	-30.9201382	-35.0238766
45	20	SECTOR 3	-30.95300091	-35.02456932
46	20	SECTOR 3	-30.95364997	-34.98271569

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
46	20	SECTOR 3	-30.95300091	-35.02456932
46	20	SECTOR 3	-30.9201382	-35.0238766
46	20	SECTOR 3	-30.90791255	-35.02361918
46	20	SECTOR 3	-30.90856046	-34.98178516
46	20	SECTOR 3	-30.95364997	-34.98271569
47	20	SECTOR 3	-30.9166943	-35.23305214
47	20	SECTOR 3	-30.91578052	-35.28534026
47	20	SECTOR 3	-30.87971585	-35.28448337
47	20	SECTOR 3	-30.88062833	-35.23221481
47	20	SECTOR 3	-30.9166943	-35.23305214
48	20	SECTOR 3	-30.91758696	-35.18076165
48	20	SECTOR 3	-30.9166943	-35.23305214
48	20	SECTOR 3	-30.88062833	-35.23221481
48	20	SECTOR 3	-30.88151972	-35.17994389
48	20	SECTOR 3	-30.91758696	-35.18076165
49	20	SECTOR 3	-30.91845849	-35.12846886
49	20	SECTOR 3	-30.91758696	-35.18076165
49	20	SECTOR 3	-30.88151972	-35.17994389
49	20	SECTOR 3	-30.88239002	-35.12767067
49	20	SECTOR 3	-30.91845849	-35.12846886
50	20	SECTOR 3	-30.91930891	-35.07617383
50	20	SECTOR 3	-30.91845849	-35.12846886
50	20	SECTOR 3	-30.88239002	-35.12767067
50	20	SECTOR 3	-30.88323923	-35.07539521
50	20	SECTOR 3	-30.91930891	-35.07617383
51	20	SECTOR 3	-30.90791255	-35.02361918
51	20	SECTOR 3	-30.9201382	-35.0238766
51	20	SECTOR 3	-30.91930891	-35.07617383
51	20	SECTOR 3	-30.88323923	-35.07539521

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
51	20	SECTOR 3	-30.88406734	-35.02311756
51	20	SECTOR 3	-30.90791255	-35.02361918
52	20	SECTOR 3	-30.87971585	-35.28448337
52	20	SECTOR 3	-30.8787823	-35.33674952
52	20	SECTOR 3	-30.84271873	-35.33587464
52	20	SECTOR 3	-30.84365096	-35.28362801
52	20	SECTOR 3	-30.87971585	-35.28448337
53	20	SECTOR 3	-30.88062833	-35.23221481
53	20	SECTOR 3	-30.87971585	-35.28448337
53	20	SECTOR 3	-30.84365096	-35.28362801
53	20	SECTOR 3	-30.84456214	-35.23137898
53	20	SECTOR 3	-30.88062833	-35.23221481
54	20	SECTOR 3	-30.88151972	-35.17994389
54	20	SECTOR 3	-30.88062833	-35.23221481
54	20	SECTOR 3	-30.84456214	-35.23137898
54	20	SECTOR 3	-30.84545226	-35.1791276
54	20	SECTOR 3	-30.88151972	-35.17994389
55	20	SECTOR 3	-30.88239002	-35.12767067
55	20	SECTOR 3	-30.88151972	-35.17994389
55	20	SECTOR 3	-30.84545226	-35.1791276
55	20	SECTOR 3	-30.84632133	-35.12687392
55	20	SECTOR 3	-30.88239002	-35.12767067
56	20	SECTOR 3	-30.88323923	-35.07539521
56	20	SECTOR 3	-30.88239002	-35.12767067
56	20	SECTOR 3	-30.84632133	-35.12687392
56	20	SECTOR 3	-30.84716933	-35.074618
56	20	SECTOR 3	-30.88323923	-35.07539521
57	20	SECTOR 3	-30.84176545	-35.3881188
57	20	SECTOR 3	-30.84079112	-35.44036045

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
57	20	SECTOR 3	-30.80473007	-35.43944817
57	20	SECTOR 3	-30.80570301	-35.38722601
57	20	SECTOR 3	-30.84176545	-35.3881188
58	20	SECTOR 3	-30.84271873	-35.33587464
58	20	SECTOR 3	-30.84176545	-35.3881188
58	20	SECTOR 3	-30.80570301	-35.38722601
58	20	SECTOR 3	-30.80665494	-35.33500133
58	20	SECTOR 3	-30.84271873	-35.33587464
59	20	SECTOR 3	-30.84365096	-35.28362801
59	20	SECTOR 3	-30.84271873	-35.33587464
59	20	SECTOR 3	-30.80665494	-35.33500133
59	20	SECTOR 3	-30.80702982	-35.31411077
59	20	SECTOR 3	-30.80758584	-35.2827742
59	20	SECTOR 3	-30.84365096	-35.28362801
60	20	SECTOR 3	-30.84456214	-35.23137898
60	20	SECTOR 3	-30.84365096	-35.28362801
60	20	SECTOR 3	-30.80758584	-35.2827742
60	20	SECTOR 3	-30.80849573	-35.23054467
60	20	SECTOR 3	-30.84456214	-35.23137898
61	20	SECTOR 3	-30.84545226	-35.1791276
61	20	SECTOR 3	-30.84456214	-35.23137898
61	20	SECTOR 3	-30.80849573	-35.23054467
61	20	SECTOR 3	-30.80938458	-35.17831278
61	20	SECTOR 3	-30.84545226	-35.1791276
62	20	SECTOR 3	-30.80473007	-35.43944817
62	20	SECTOR 3	-30.80373612	-35.49166777
62	20	SECTOR 3	-30.76767626	-35.49073769
62	20	SECTOR 3	-30.7686688	-35.43853754
62	20	SECTOR 3	-30.80473007	-35.43944817

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
63	20	SECTOR 3	-30.80570301	-35.38722601
63	20	SECTOR 3	-30.80473007	-35.43944817
63	20	SECTOR 3	-30.7686688	-35.43853754
63	20	SECTOR 3	-30.76964035	-35.38633482
63	20	SECTOR 3	-30.80570301	-35.38722601
64	20	SECTOR 3	-30.80665494	-35.33500133
64	20	SECTOR 3	-30.80570301	-35.38722601
64	20	SECTOR 3	-30.76964035	-35.38633482
64	20	SECTOR 3	-30.77059092	-35.3341296
64	20	SECTOR 3	-30.80665494	-35.33500133
65	20	SECTOR 3	-30.76767626	-35.49073769
65	20	SECTOR 3	-30.80373612	-35.49166777
65	20	SECTOR 3	-30.80292583	-35.53344156
65	20	SECTOR 3	-30.75785241	-35.53225979
65	20	SECTOR 3	-30.75866126	-35.49050543
65	20	SECTOR 3	-30.76767626	-35.49073769
68	20	SECTOR 3	-30.7686688	-35.43853754
68	20	SECTOR 3	-30.76767626	-35.49073769
68	20	SECTOR 3	-30.75866126	-35.49050543
68	20	SECTOR 3	-30.73161618	-35.48980929
68	20	SECTOR 3	-30.7326073	-35.43762855
68	20	SECTOR 3	-30.7686688	-35.43853754
69	20	SECTOR 3	-30.76964035	-35.38633482
69	20	SECTOR 3	-30.7686688	-35.43853754
69	20	SECTOR 3	-30.7326073	-35.43762855
69	20	SECTOR 3	-30.73357747	-35.38544524
69	20	SECTOR 3	-30.76964035	-35.38633482
70	20	SECTOR 3	-30.77059092	-35.3341296
70	20	SECTOR 3	-30.76964035	-35.38633482

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
70	20	SECTOR 3	-30.73357747	-35.38544524
70	20	SECTOR 3	-30.73452669	-35.33325944
70	20	SECTOR 3	-30.77059092	-35.3341296
74	20	SECTOR 3	-30.73161618	-35.48980929
74	20	SECTOR 3	-30.75866126	-35.49050543
74	20	SECTOR 3	-30.75785241	-35.53225979
74	20	SECTOR 3	-30.71277863	-35.53108068
74	20	SECTOR 3	-30.71358605	-35.48934571
74	20	SECTOR 3	-30.73161618	-35.48980929
75	20	SECTOR 3	-30.80702982	-35.31411077
75	20	SECTOR 3	-30.80665494	-35.33500133
75	20	SECTOR 3	-30.77059092	-35.3341296
75	20	SECTOR 3	-30.73452669	-35.33325944
75	20	SECTOR 3	-30.71649449	-35.33282495
75	20	SECTOR 3	-30.71686804	-35.31195381
75	20	SECTOR 3	-30.80702982	-35.31411077
76	20	SECTOR 3	-30.7326073	-35.43762855
76	20	SECTOR 3	-30.73161618	-35.48980929
76	20	SECTOR 3	-30.71358605	-35.48934571
76	20	SECTOR 3	-30.69555586	-35.48888256
76	20	SECTOR 3	-30.69654557	-35.43672119
76	20	SECTOR 3	-30.7326073	-35.43762855
77	20	SECTOR 3	-30.73357747	-35.38544524
77	20	SECTOR 3	-30.7326073	-35.43762855
77	20	SECTOR 3	-30.69654557	-35.43672119
77	20	SECTOR 3	-30.69751436	-35.38455727
77	20	SECTOR 3	-30.73357747	-35.38544524
78	20	SECTOR 3	-30.71649449	-35.33282495
78	20	SECTOR 3	-30.73452669	-35.33325944

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
78	20	SECTOR 3	-30.73357747	-35.38544524
78	20	SECTOR 3	-30.69751436	-35.38455727
78	20	SECTOR 3	-30.69846223	-35.33239084
78	20	SECTOR 3	-30.71649449	-35.33282495

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
13	20	SECTOR 4	-31.21280379	-34.04888113
13	20	SECTOR 4	-31.21236512	-34.10136329
13	20	SECTOR 4	-31.17627999	-34.10094539
13	20	SECTOR 4	-31.17671804	-34.04848313
13	20	SECTOR 4	-31.21280379	-34.04888113
22	20	SECTOR 4	-31.17627999	-34.10094539
22	20	SECTOR 4	-31.17582057	-34.15340648
22	20	SECTOR 4	-31.13973589	-34.15296946
22	20	SECTOR 4	-31.14019466	-34.10052824
22	20	SECTOR 4	-31.17627999	-34.10094539
23	20	SECTOR 4	-31.17671804	-34.04848313
23	20	SECTOR 4	-31.17627999	-34.10094539
23	20	SECTOR 4	-31.14019466	-34.10052824
23	20	SECTOR 4	-31.14054632	-34.05857441
23	20	SECTOR 4	-31.14063209	-34.04808584
23	20	SECTOR 4	-31.17671804	-34.04848313
29	20	SECTOR 4	-31.13973589	-34.15296946
29	20	SECTOR 4	-31.13925577	-34.20540945
29	20	SECTOR 4	-31.10317156	-34.20495339
29	20	SECTOR 4	-31.103651	-34.15253323
29	20	SECTOR 4	-31.13973589	-34.15296946
34	20	SECTOR 4	-31.14054632	-34.05857441
34	20	SECTOR 4	-31.14019466	-34.10052824



<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
34	20	SECTOR 4	-31.09508771	-34.10000785
34	20	SECTOR 4	-31.09543874	-34.05807386
34	20	SECTOR 4	-31.14054632	-34.05857441
35	20	SECTOR 4	-31.10317156	-34.20495339
35	20	SECTOR 4	-31.10267081	-34.25737227
35	20	SECTOR 4	-31.06658711	-34.25689724
35	20	SECTOR 4	-31.06708715	-34.20449815
35	20	SECTOR 4	-31.10317156	-34.20495339
36	20	SECTOR 4	-31.07390309	-34.15217419
36	20	SECTOR 4	-31.103651	-34.15253323
36	20	SECTOR 4	-31.10317156	-34.20495339
36	20	SECTOR 4	-31.06708715	-34.20449815
36	20	SECTOR 4	-31.0675659	-34.15209778
36	20	SECTOR 4	-31.07390309	-34.15217419
40	20	SECTOR 4	-31.09543874	-34.05807386
40	20	SECTOR 4	-31.09508771	-34.10000785
40	20	SECTOR 4	-31.07436068	-34.09976912
40	20	SECTOR 4	-31.04998043	-34.09948864
40	20	SECTOR 4	-31.05033084	-34.05757443
40	20	SECTOR 4	-31.09543874	-34.05807386
41	20	SECTOR 4	-31.04998043	-34.09948864
41	20	SECTOR 4	-31.07436068	-34.09976912
41	20	SECTOR 4	-31.07390309	-34.15217419
41	20	SECTOR 4	-31.0675659	-34.15209778
41	20	SECTOR 4	-31.03781783	-34.15173939
41	20	SECTOR 4	-31.03827477	-34.09935409
41	20	SECTOR 4	-31.04998043	-34.09948864

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
6	20	SECTOR 5	-31.54096959	-34.29942029
6	20	SECTOR 5	-31.5404236	-34.35208032
6	20	SECTOR 5	-31.52238369	-34.35182037
6	20	SECTOR 5	-31.50434372	-34.35156066
6	20	SECTOR 5	-31.50488894	-34.29892085
6	20	SECTOR 5	-31.54096959	-34.29942029
7	20	SECTOR 5	-31.50434372	-34.35156066
7	20	SECTOR 5	-31.52238369	-34.35182037
7	20	SECTOR 5	-31.52181642	-34.40446883
7	20	SECTOR 5	-31.48573723	-34.40392943
7	20	SECTOR 5	-31.4863037	-34.35130118
7	20	SECTOR 5	-31.50434372	-34.35156066
8	20	SECTOR 5	-31.4863037	-34.35130118
8	20	SECTOR 5	-31.48573723	-34.40392943
8	20	SECTOR 5	-31.48226631	-34.40387759
8	20	SECTOR 5	-31.44965782	-34.403391
8	20	SECTOR 5	-31.45022349	-34.35078291
8	20	SECTOR 5	-31.4863037	-34.35130118
9	20	SECTOR 5	-31.44965782	-34.403391
9	20	SECTOR 5	-31.48226631	-34.40387759
9	20	SECTOR 5	-31.48179763	-34.44597755
9	20	SECTOR 5	-31.43669914	-34.44528462
9	20	SECTOR 5	-31.43701752	-34.41678491
9	20	SECTOR 5	-31.43716699	-34.40320481
9	20	SECTOR 5	-31.44965782	-34.403391
10	20	SECTOR 5	-31.43701752	-34.41678491
10	20	SECTOR 5	-31.43669914	-34.44528462
10	20	SECTOR 5	-31.43642496	-34.46938411
10	20	SECTOR 5	-31.40034632	-34.46882167

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
10	20	SECTOR 5	-31.4007381	-34.4342246
10	20	SECTOR 5	-31.40093804	-34.41624259
10	20	SECTOR 5	-31.43701752	-34.41678491
11	20	SECTOR 5	-31.4007381	-34.4342246
11	20	SECTOR 5	-31.40034632	-34.46882167
11	20	SECTOR 5	-31.40013901	-34.48680315
11	20	SECTOR 5	-31.36406044	-34.48623485
11	20	SECTOR 5	-31.36465869	-34.43367638
11	20	SECTOR 5	-31.4007381	-34.4342246
<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
12	20	SECTOR 6	-31.19648562	-35.14791887
12	20	SECTOR 6	-31.19469125	-35.25280531
12	20	SECTOR 6	-31.17665932	-35.25237809
12	20	SECTOR 6	-31.17756654	-35.19994597
12	20	SECTOR 6	-31.17845242	-35.14751151
12	20	SECTOR 6	-31.19648562	-35.14791887
16	20	SECTOR 6	-31.17756654	-35.19994597
16	20	SECTOR 6	-31.17665932	-35.25237809
16	20	SECTOR 6	-31.14059528	-35.25152481
16	20	SECTOR 6	-31.14150122	-35.19911252
16	20	SECTOR 6	-31.17756654	-35.19994597
17	20	SECTOR 6	-31.17845242	-35.14751151
17	20	SECTOR 6	-31.17756654	-35.19994597
17	20	SECTOR 6	-31.14150122	-35.19911252
17	20	SECTOR 6	-31.14210158	-35.16367964
17	20	SECTOR 6	-31.14238585	-35.14669788
17	20	SECTOR 6	-31.17845242	-35.14751151
18	20	SECTOR 6	-31.17988932	-35.05962541

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
18	20	SECTOR 6	-31.1790392	-35.11206367
18	20	SECTOR 6	-31.1429718	-35.11126345
18	20	SECTOR 6	-31.14354796	-35.07583145
18	20	SECTOR 6	-31.14382072	-35.05884501
18	20	SECTOR 6	-31.17988932	-35.05962541
19	20	SECTOR 6	-31.1816785	-34.94464722
19	20	SECTOR 6	-31.18087518	-34.99709022
19	20	SECTOR 6	-31.14480519	-34.99633349
19	20	SECTOR 6	-31.14519567	-34.97098945
19	20	SECTOR 6	-31.14560737	-34.94391032
19	20	SECTOR 6	-31.1816785	-34.94464722
20	20	SECTOR 6	-31.18246047	-34.89220214
20	20	SECTOR 6	-31.1816785	-34.94464722
20	20	SECTOR 6	-31.14560737	-34.94391032
20	20	SECTOR 6	-31.14638823	-34.89148509
20	20	SECTOR 6	-31.18246047	-34.89220214
21	20	SECTOR 6	-31.18322108	-34.83975504
21	20	SECTOR 6	-31.18246047	-34.89220214
21	20	SECTOR 6	-31.14638823	-34.89148509
21	20	SECTOR 6	-31.14714777	-34.83905784
21	20	SECTOR 6	-31.18322108	-34.83975504
24	20	SECTOR 6	-31.14519567	-34.97098945
24	20	SECTOR 6	-31.14480519	-34.99633349
24	20	SECTOR 6	-31.14382072	-35.05884501
24	20	SECTOR 6	-31.14354796	-35.07583145
24	20	SECTOR 6	-31.12551377	-35.07543857
24	20	SECTOR 6	-31.12716031	-34.97061639
24	20	SECTOR 6	-31.14519567	-34.97098945
27	20	SECTOR 6	-31.1429718	-35.11126345

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
27	20	SECTOR 6	-31.14238585	-35.14669788
27	20	SECTOR 6	-31.14210158	-35.16367964
27	20	SECTOR 6	-31.10603518	-35.16286106
27	20	SECTOR 6	-31.10690418	-35.11046466
27	20	SECTOR 6	-31.1429718	-35.11126345
28	20	SECTOR 6	-31.12716031	-34.97061639
28	20	SECTOR 6	-31.12551377	-35.07543857
28	20	SECTOR 6	-31.10747953	-35.07504605
28	20	SECTOR 6	-31.1091249	-34.97024365
28	20	SECTOR 6	-31.12716031	-34.97061639
<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
14	20	SECTOR 7	-31.19536894	-35.63390483
14	20	SECTOR 7	-31.19450304	-35.67584496
14	20	SECTOR 7	-31.14943746	-35.67457735
14	20	SECTOR 7	-31.15030183	-35.63265703
14	20	SECTOR 7	-31.19536894	-35.63390483
15	20	SECTOR 7	-31.19622118	-35.5919629
15	20	SECTOR 7	-31.19536894	-35.63390483
15	20	SECTOR 7	-31.15030183	-35.63265703
15	20	SECTOR 7	-31.15115257	-35.59073492
15	20	SECTOR 7	-31.19622118	-35.5919629
25	20	SECTOR 7	-31.14921924	-35.68505715
25	20	SECTOR 7	-31.14811537	-35.73745441
25	20	SECTOR 7	-31.11206452	-35.73641865
25	20	SECTOR 7	-31.11316683	-35.68404116
25	20	SECTOR 7	-31.14921924	-35.68505715
26	20	SECTOR 7	-31.15136313	-35.58025412
26	20	SECTOR 7	-31.15115257	-35.59073492

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
26	20	SECTOR 7	-31.15030183	-35.63265703
26	20	SECTOR 7	-31.11424789	-35.63166082
26	20	SECTOR 7	-31.11530769	-35.57927768
26	20	SECTOR 7	-31.15136313	-35.58025412
30	20	SECTOR 7	-31.11094096	-35.78879324
30	20	SECTOR 7	-31.10979615	-35.84116486
30	20	SECTOR 7	-31.07374827	-35.84009152
30	20	SECTOR 7	-31.07489146	-35.78773962
30	20	SECTOR 7	-31.11094096	-35.78879324
31	20	SECTOR 7	-31.11206452	-35.73641865
31	20	SECTOR 7	-31.11094096	-35.78879324
31	20	SECTOR 7	-31.07489146	-35.78773962
31	20	SECTOR 7	-31.07601343	-35.73538476
31	20	SECTOR 7	-31.11206452	-35.73641865
32	20	SECTOR 7	-31.11316683	-35.68404116
32	20	SECTOR 7	-31.11206452	-35.73641865
32	20	SECTOR 7	-31.07601343	-35.73538476
32	20	SECTOR 7	-31.07711419	-35.683027
32	20	SECTOR 7	-31.11316683	-35.68404116
33	20	SECTOR 7	-31.11424789	-35.63166082
33	20	SECTOR 7	-31.11316683	-35.68404116
33	20	SECTOR 7	-31.07711419	-35.683027
33	20	SECTOR 7	-31.07819371	-35.63066639
33	20	SECTOR 7	-31.11424789	-35.63166082
37	20	SECTOR 7	-31.07489146	-35.78773962
37	20	SECTOR 7	-31.07374827	-35.84009152
37	20	SECTOR 7	-31.03770016	-35.8390201
37	20	SECTOR 7	-31.03884173	-35.78668789
37	20	SECTOR 7	-31.07489146	-35.78773962

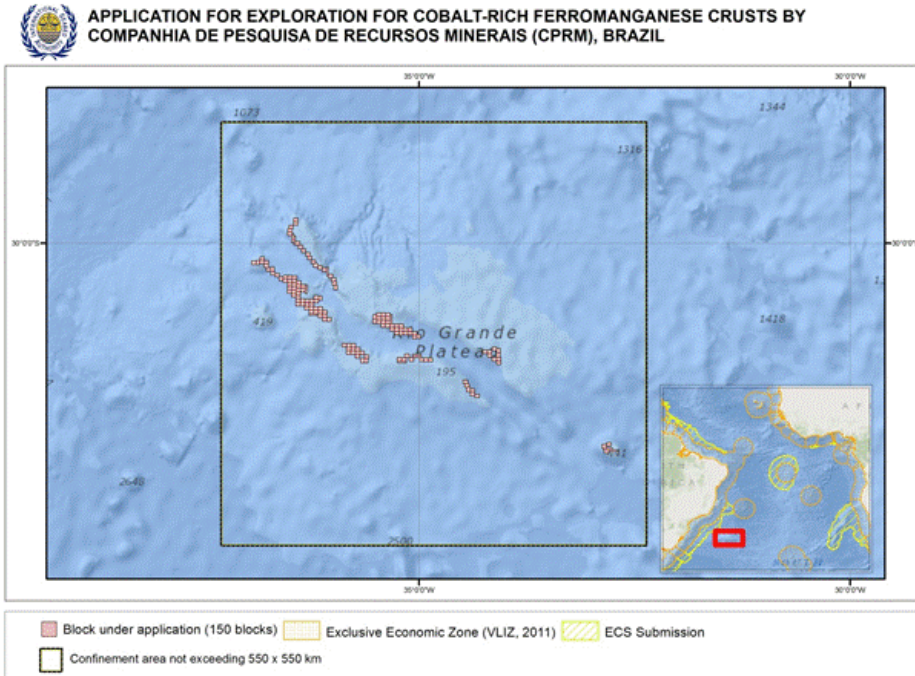
<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
38	20	SECTOR 7	-31.07601343	-35.73538476
38	20	SECTOR 7	-31.07489146	-35.78773962
38	20	SECTOR 7	-31.03884173	-35.78668789
38	20	SECTOR 7	-31.03996211	-35.73435272
38	20	SECTOR 7	-31.07601343	-35.73538476
39	20	SECTOR 7	-31.07711419	-35.683027
39	20	SECTOR 7	-31.07601343	-35.73538476
39	20	SECTOR 7	-31.03996211	-35.73435272
39	20	SECTOR 7	-31.04106131	-35.68201466
39	20	SECTOR 7	-31.07711419	-35.683027
42	20	SECTOR 7	-31.03770016	-35.8390201
42	20	SECTOR 7	-31.0365374	-35.8913493
42	20	SECTOR 7	-31.0004907	-35.89026017
42	20	SECTOR 7	-31.00165181	-35.83795061
42	20	SECTOR 7	-31.03770016	-35.8390201
43	20	SECTOR 7	-31.03884173	-35.78668789
43	20	SECTOR 7	-31.03770016	-35.8390201
43	20	SECTOR 7	-31.00165181	-35.83795061
43	20	SECTOR 7	-31.00279176	-35.78563805
43	20	SECTOR 7	-31.03884173	-35.78668789
44	20	SECTOR 7	-31.03996211	-35.73435272
44	20	SECTOR 7	-31.03884173	-35.78668789
44	20	SECTOR 7	-31.00279176	-35.78563805
44	20	SECTOR 7	-31.00391056	-35.73332254
44	20	SECTOR 7	-31.03996211	-35.73435272

<i>BLOCK</i>	<i>AREA (km<sup>2</sup>)</i>	<i>SECTOR</i>	<i>LATITUDE</i>	<i>LONGITUDE</i>
1	20	SECTOR 8	-32.07134179	-32.79841034
1	20	SECTOR 8	-32.08938508	-32.79837073
1	20	SECTOR 8	-32.08945833	-32.85135704
1	20	SECTOR 8	-32.0533716	-32.85141541
1	20	SECTOR 8	-32.05329846	-32.79844991
1	20	SECTOR 8	-32.07134179	-32.79841034
2	20	SECTOR 8	-32.07112896	-32.69245926
2	20	SECTOR 8	-32.07134179	-32.79841034
2	20	SECTOR 8	-32.05329846	-32.79844991
2	20	SECTOR 8	-32.0532271	-32.75768929
2	20	SECTOR 8	-32.05308577	-32.69251963
2	20	SECTOR 8	-32.07112896	-32.69245926
3	20	SECTOR 8	-32.0532271	-32.75768929
3	20	SECTOR 8	-32.05329846	-32.79844991
3	20	SECTOR 8	-32.0533716	-32.85141541
3	20	SECTOR 8	-32.05338532	-32.86362017
3	20	SECTOR 8	-32.03534187	-32.86364692
3	20	SECTOR 8	-32.03529291	-32.82390395
3	20	SECTOR 8	-32.03518376	-32.75773682
3	20	SECTOR 8	-32.0532271	-32.75768929
4	20	SECTOR 8	-32.01804741	-32.82393694
4	20	SECTOR 8	-32.03529291	-32.82390395
4	20	SECTOR 8	-32.03534187	-32.86364692
4	20	SECTOR 8	-32.03535539	-32.87685915
4	20	SECTOR 8	-31.99926832	-32.8769074
4	20	SECTOR 8	-31.99920592	-32.82397296
4	20	SECTOR 8	-32.01804741	-32.82393694
5	20	SECTOR 8	-32.01796287	-32.77099186
5	20	SECTOR 8	-32.01804741	-32.82393694
5	20	SECTOR 8	-31.99920592	-32.82397296
5	20	SECTOR 8	-31.98196033	-32.82400589
5	20	SECTOR 8	-31.9818759	-32.77108154
5	20	SECTOR 8	-32.01796287	-32.77099186



## Annex II

### Map of the general location of the area under application





## Council

Distr.: General  
9 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for polymetallic nodules by the Cook Islands Investment Corporation**

#### **I. Introduction**

1. On 27 December 2013, the Secretary-General of the International Seabed Authority received an application for the approval of a plan of work for exploration for polymetallic nodules in the Area. The application was submitted pursuant to the regulations on prospecting and exploration for polymetallic nodules in the Area (ISBA/19/C/17, annex) by Cook Islands Investment Corporation. The area under application is located within the areas reserved for the Authority pursuant to annex III, article 8, of the 1982 United Nations Convention on the Law of the Sea.

2. In accordance with regulation 20, paragraph 1 (c), of the regulations, the Secretary-General, by a note verbale dated 30 December 2013, notified the members of the Authority of the receipt of the application and circulated information of a general nature concerning the application. The Secretary-General also placed consideration of the application on the agenda of the Legal and Technical Commission at its meeting held from 3 to 13 February 2014.

#### **II. Methodology for consideration of the application by the Legal and Technical Commission**

##### **A. General methodology applied by the Commission in consideration of the application**

3. In its consideration of the application, the Commission noted that, in keeping with the scheme established in article 6 of annex III to the Convention, it was first required to make an objective determination as to: whether the applicant had fulfilled the requirements contained in the regulations, particularly with respect to



the form of applications; whether the applicant had provided the necessary undertakings and assurances specified in regulation 14; and whether it had the necessary financial and technical capability to carry out the proposed plan of work for exploration. The Commission is then required to determine, in accordance with regulation 21, paragraph 4, and its procedures, whether the proposed plan of work will provide for effective protection of human health and safety and effective protection and preservation of the marine environment, and will ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity. Regulation 21, paragraph 5, provides that, if the Commission makes the determinations specified in paragraph 3 and determines that the proposed plan of work for exploration meets the requirements of paragraph 4, it shall recommend approval of the plan of work for exploration to the Council.

4. In considering the proposed plan of work for exploration for polymetallic nodules, the Commission took into account the principles, policies and objectives relating to activities in the Area as provided for in part XI and annex III of the Convention and in the Agreement relating to the Implementation of Part XI of the Convention.

## **B. Consideration of the application**

5. The Commission considered the application in closed meetings on 6, 7 and 10 February and on 7 and 8 July 2014.

6. Prior to commencing a detailed examination of the application, the Commission invited the Seabed Minerals Commissioner of the Cook Islands, Paul Lynch, accompanied by the Director of Cook Islands Investment Corporation, Michael Henry, and a special advisor, Jacques Paynjon, to make a presentation of the application. Members of the Commission then asked questions to clarify certain aspects of the application before convening in closed session to examine it in detail. Following its initial consideration, the Commission also decided to request the Chair of the Commission to transmit a list of questions to the applicant in writing through the Secretary-General. Responses were received from the applicant but the Commission did not have time to complete consideration of the application and decided to defer it, to be taken up as a matter of priority at its next meeting in July 2014. The written responses provided by the applicant, which supplemented the equivalent parts of the originally submitted application, were taken into account by the Commission in its subsequent consideration at its session in July.

## **III. Summary of basic information regarding the application**

### **A. Identification of the applicant**

7. The name and address of the applicant are as follows:

- (a) Name: Cook Islands Investment Corporation;
- (b) Street address: Main Road, Avarua, Rarotonga, Cook Islands;
- (c) Postal address: P.O. Box 733, Avarua, Rarotonga, Cook Islands;

- (d) Telephone number: +682 29 193;
  - (e) Mobile number: +682 55 331;
  - (f) E-mail address: paul.lynch@cookislands.gov.ck
8. The applicant's designated representative is:
- (a) Name and title: Mark Brown, Minister Responsible;
  - (b) Street address: as above;
  - (c) Telephone number: as above;
  - (d) Mobile number: as above;
  - (e) E-mail address: as above;
  - (f) Place of registration and principal place of business/domicile: Avarua, Rarotonga, Cook Islands.
9. The applicant states that it is an enterprise entirely owned by the State. The State enterprise has been established pursuant to section 3 of the Cook Islands investment corporation act 1998 (as amended) which is included in the application. The applicant has its registered office at the Office of the Minister Responsible in the Cook Islands. In the certificate of sponsorship, the sponsoring State adds that the applicant is under the effective and sovereign control of the Cook Islands Government, subject to the laws of the Cook Islands and controlled by the Government of the Cook Islands.

## **B. Sponsorship**

10. The sponsoring State is the Cook Islands.
11. The Cook Islands deposited its instrument of accession to the United Nations Convention on the Law of the Sea and consented to be bound by the Agreement relating to the Implementation of Part XI of the Convention on 15 February 1995.
12. The certificate of sponsorship is dated 18 December 2013 and signed by the Minister Responsible of the Government of the Cook Islands, Mark Brown. The certificate of sponsorship states that the sponsoring State will assume responsibility of a sponsoring State in accordance with articles 139 and 153, paragraph 4, and annex III, article 4, paragraph 4, of the Convention. The applicant states in a letter dated 18 December 2013 that the sponsoring State has initiated steps pursuant to Article 4 of annex III of the Convention to finalize and pass national legislation, regulations and administrative measures to secure compliance by persons under its jurisdiction.

## **C. Area of application**

13. The area under application covers a total area of approximately 75,000 km<sup>2</sup> in the Clarion-Clipperton fracture zone of the Pacific Ocean. This is the reserved area contributed by G-TEC Sea Mineral Resources NV. The area under application comprises three non-continuous subparts, which are adjacent to the subparts of the area under exploration allocated to G-TEC Sea Mineral Resources NV. The

coordinates and general location of the area under application are shown in the annex to the present document.

#### **D. Other information**

14. The applicant has not been previously awarded any contract with the Authority.

15. The application includes a written undertaking dated 18 December 2013 and signed by the Minister Responsible, Mark Brown, stating that the applicant will comply with regulation 14 of the regulations.

16. The applicant has paid a fee of \$500,000 in accordance with regulation 19 of the regulations.

### **IV. Examination of information and technical data submitted by the applicant**

17. The following technical documents and information were submitted in the application:

- (a) Information relating to the application area:
  - (i) Boundaries of the area under application by a list of geographic coordinates in accordance with the World Geodetic System 1984;
  - (ii) Chart of the area under application;
- (b) Copy of the certificate of incorporation;
- (c) Certificate of sponsorship;
- (d) Information to enable the Council to determine whether the applicant is financially capable of carrying out the proposed plan of work for exploration;
- (e) Information to enable the Council to determine whether the applicant is technically capable of carrying out the proposed plan of work for exploration;
- (f) Plan of work for exploration;
- (g) Written undertakings;
- (h) Training programmes.

### **V. Consideration of financial and technical qualifications of the applicant**

#### **A. Financial capacity**

18. The Commission noted that the sponsoring State had provided a statement dated 18 December 2013 attesting that the applicant had the financial capability to meet the estimated costs of the proposed plan of work for exploration.

## **B. Technical capacity**

19. The Commission noted that the sponsoring State had entered into an arrangement with G-TEC Sea Mineral Resources NV to ensure that the applicant would benefit from the necessary joint support and assistance in carrying out its obligations under the proposed plan of work for exploration. In particular, the applicant would have access to the technical resources and capabilities of G-TEC Sea Mineral Resources NV. The applicant and G-TEC Sea Mineral Resources NV would adopt a complementary approach to guarantee a more logical scientific method, to minimize costs, to prevent overlapping studies and to ensure access to relevant in situ survey data. In addition to the cruises conducted by the applicant on its own, G-TEC Sea Mineral Resources NV would collect data during its annual cruises in the applicant's area on behalf of the applicant. The applicant further stated that this would allow it to overcome the financial threshold related to an application without affecting the performance of the obligations under the plan of work. The Commission welcomed the proposed cooperation between the applicant and G-TEC Sea Mineral Resources NV in the conduct of joint exploration cruises as it would reduce mobilization costs and optimize results. In recognizing the emphasis that the applicant had placed on complementarity between its application and the contract with G-TEC Sea Mineral Resources NV, the Commission also emphasized that each approved plan of work in the form of a contract had to be implemented and monitored separately in activity reports that each contractor was required to submit annually.

20. The Commission was provided with technical information in relation to expertise, skills and exploration equipment, including potential research vessels, multibeam echo sounders deep tow systems, remotely operated vehicles and sampling equipment for surveys.

21. The Commission was also provided with information relating to the prevention, reduction and control of pollution and other hazards to, as well as possible impacts on, the marine environment. The applicant stated that it would apply a rigorous approach to manage environmental risks so that serious harm did not come to the marine environment. The applicant further mentioned that G-TEC Sea Mineral Resources NV, its industrial partner, had significant resources available by way of vessels and deep sea platforms that could be deployed were a significant incident to occur.

## **VI. Consideration of data and information submitted for approval of the plan of work for exploration for polymetallic nodules**

22. In accordance with regulation 18 of the regulations, the application includes the following information for approval of the plan of work for exploration:

(a) A general description and a schedule of the proposed exploration programme, including the programme for the first five-year period;

(b) A description of the programme for oceanographic and environmental baseline studies in accordance with the regulations and any environmental rules, regulations and procedures established by the Authority that would enable an

assessment of the potential environmental impact of the proposed exploration activities, taking into account any recommendations issued by the Legal and Technical Commission;

(c) A preliminary assessment of the possible impact of the proposed exploration activities on the marine environment;

(d) A description of proposed measures for the prevention, reduction and control of pollution and other hazards to, as well as possible impacts on, the marine environment;

(e) Data necessary for the Council to make the determination it is required to make in accordance with regulation 12, paragraph 1, of the regulations;

(f) A schedule of anticipated yearly expenditures in respect of the programme of activities for the first five-year period.

## **VII. Training programme**

23. The Commission noted that the proposed training programme focusing on young professionals from developing States consisted of fellowships in cooperation with selected universities, internships and traineeships within the applicant and partner companies, including participation in campaigns and specific professional training at sea. The applicant further stated that the exact range of training opportunity, programme and schedule would be designed in consultation with the Authority and the sponsoring State. The Commission highlighted that, in developing the training programme, the applicant and the Secretary-General should ensure that the training programme was in line with the recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration, as developed by the Commission at its nineteenth session ([ISBA/19/LTC/14](#)).

## **VIII. Conclusion and recommendations**

24. Having examined the particulars submitted by the applicant, which are summarized in sections III to VII above, the Commission is satisfied that the application has been duly submitted in accordance with the regulations and that the applicant is a qualified applicant, as defined in articles 4 and 9 of annex III to the Convention, and regulation 17 of the regulations. The Commission is further satisfied that the applicant:

(a) Has complied with the provisions of the regulations;

(b) Has given the undertakings and assurances specified in regulation 14 of the regulations;

(c) Possesses the financial and technical capability to carry out the proposed plan of work for exploration.

25. The Commission states that none of the conditions in regulation 21, paragraph 6, of the regulations apply.

26. With respect to the proposed plan of work for exploration, the Commission is satisfied that the proposed plan of work for exploration will:

- (a) Provide for effective protection of human health and safety;
- (b) Provide for effective protection and preservation of the marine environment;
- (c) Ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity.

27. Accordingly, pursuant to regulation 21, paragraph 5, of the regulations, the Commission recommends to the Council approval of the plan of work for exploration submitted by the Cook Islands Investment Corporation.



## Annex I

### A. List of coordinates of the area under application

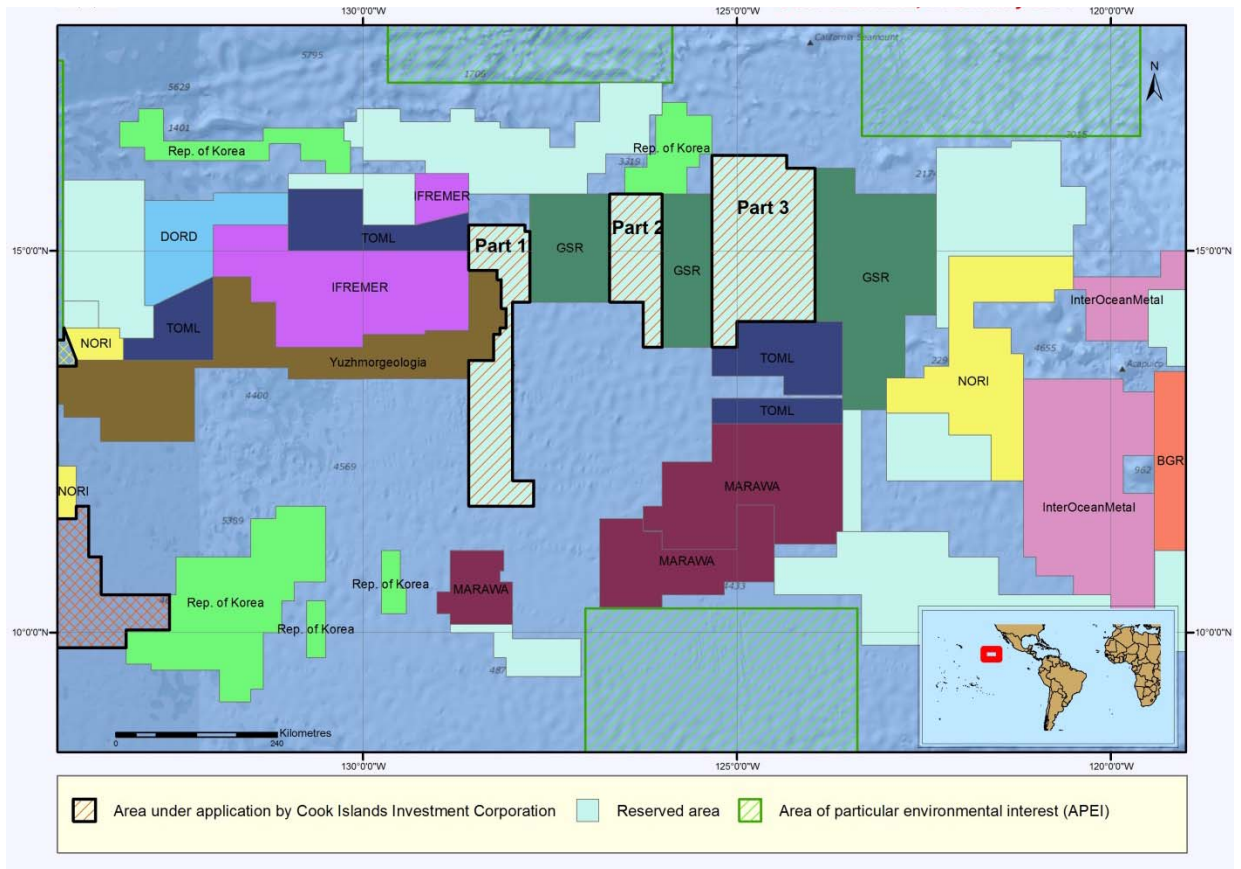
<i>Longitude</i>	<i>Latitude</i>
<i>Subpart 1</i>	
-128.58333	15.33333
-127.83333	15.33333
-127.83333	15.25000
-127.76667	15.25000
-127.76667	14.33333
-128.00000	14.33333
-128.00000	12.00000
-127.71667	12.00000
-127.71667	11.66667
-128.58333	11.66667
-128.58330	13.57600
-128.25000	13.57600
-128.25000	13.91670
-128.16670	13.91670
-128.16670	14.00000
-128.08330	14.00000
-128.08330	14.25000
-128.15220	14.25000
-128.15220	14.62500
-128.20830	14.62500
-128.20830	14.75000
-128.58330	14.75000
-128.58333	15.33333

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<i>Longitude</i>	<i>Latitude</i>
<i>Subpart 2</i>	
-126.7000	15.7333
-126.0000	15.7333
-126.0000	13.7500
-126.2500	13.7500
-126.2500	14.3333
-126.7000	14.3333
-126.7000	15.7333
<i>Subpart 3</i>	
-125.3333	16.2333
-124.3333	16.2333
-124.3333	16.0667
-123.9520	16.0667
-123.9520	14.0833
-125.0000	14.0833
-125.0000	13.7500
-125.3333	13.7500
-125.3333	16.2333

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### B. Map of the general location of the area under application





# Council

Distr.: General  
16 July 2014

Original: English

**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

## **Summary report of the Chair of the Legal and Technical Commission on the work of the Commission during the twentieth session of the International Seabed Authority**

### **I. Introduction**

1. The Legal and Technical Commission held two sessions in 2014, from 3 to 13 February and from 7 to 16 July, in total, holding 32 formal meetings.
2. On 4 February 2014, the Commission adopted its agenda for the twentieth session ([ISBA/20/LTC/1](#)). On the same day, the Commission elected Russell Howorth (Fiji) as Chair and Christian Reichert (Germany) as Vice-Chair.
3. The following members of the Commission participated in the two sessions: David Billett, Harald Brekke, Winifred Broadbelt, Georgy Cherkashov, Elva Escobar, Russell Howorth, Kiseong Hyeong, Elie Jarmache, Eusebio Lopera, Pedro Madureira, Nobuyuki Okamoto, Christian Reichert, Maruthadu Sudhakar and Haiqi Zhang. The following members attended the session in July, but were unable to attend the session in February: Emmanuel Kalngui and Cristian Rodrigo. The following members attended the session in February, but were unable to attend the session in July: Adesina Adegbe, Andrzej Przybycin, Domenico da Empoli and Hussein Mubarak. Farhan Al-Farhan did not attend either session. The following members resigned prior to the session in February: Kaiser de Souza, Victor Enrique Marzari, Laleta Davis-Mattis and Aleksander Čičerov. In accordance with previous practice, Carlos Roberto Leite, Juan Pablo Paniego and Michelle Walker participated in the meetings of the Commission following their nomination but prior to their formal election by the Council on 15 July 2014.

### **II. Activities of contractors**

#### **A. Status of prospecting and of contracts for exploration for polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts**

4. The secretariat provided the Commission with information on the status of prospecting and of contracts for exploration for polymetallic nodules, polymetallic



sulphides and cobalt-rich ferromanganese crusts in the Area ([ISBA/20/LTC/5](#), [ISBA/20/LTC/9](#) and [ISBA/20/LTC/9/Add.1](#)). The Commission took note of the information provided and also noted that it was anticipated that, by the end of 2014, there would be 26 contracts for exploration, with consequent implications for the increasing workload of the secretariat and the Commission.

## **B. Periodic review of the implementation of the plan of work for exploration by the Government of India**

5. The Commission noted that the final five-year review of the implementation of the plan of work for exploration by the Government of India had been formally concluded by an exchange of letters dated 6 March 2014.

## **C. Consideration of the annual reports of contractors**

6. The Commission considered 13 annual reports submitted by contractors pursuant to section 10 of annex 4 to the Regulations. The list of contractors that submitted annual reports is shown in annex I. The Commission noted that the G-TEC Sea Mineral Resources NV did not submit an annual report in 2014, in accordance with an understanding made upon signature of the contract, owing to the fact that the sponsoring State had not authorized the contractor to commence its activities until domestic legislation was in place. In accordance with past practice, the annual reports of the contractors were made available to members of the Commission through a secure website and the secretariat undertook a technical evaluation of the reports, which included a detailed analysis of the contractors' activities, which assisted the work of the Commission. In considering the reports, the Commission divided itself into three working groups on (a) environmental matters, (b) legal and financial matters and training, and (c) technical matters, in order to undertake a detailed examination of the annual reports, on which the Commission provided a report to the Secretary-General.

7. General comments for the Council on the contractors' annual reports are contained in annex I to the present report. The Commission noted that the majority of reports followed in large part the general format prescribed by the Commission, and generally focused on work carried out during the reporting year under consideration, in accordance with the suggestions made by the Commission after previous evaluations. A few reports reviewed work from earlier years. Six of the seven pioneer contractors will complete the final five-year phase of their respective contracts in 2016. By that time it is expected that they will have identified a first-generation mine site, obtained good baseline environmental data, developed a mining system prototype and arrangements for processing of nodules. Five of those contractors have reported different stages on mining tests and selection of sites in their respective areas.

8. The Commission noted that its recommendations for the guidance of contractors for the reporting of actual and direct exploration expenditures as required by annex 4, section 10, of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area<sup>1</sup> (Nodules Regulations) had been issued before

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<sup>1</sup> ISBA/6/A/18, annex as amended by ISBA/19/C/17.

the adoption of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area<sup>2</sup> (Sulphides Regulations) and of the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area<sup>3</sup> (Crusts Regulations) and before the conclusion of contracts for exploration of sulphides or crusts. As a result, the Commission noted that there was a need to update the recommendations to cover contracts for exploration for sulphides and crusts.

9. The Commission also noted that there was a need to review the recommended template for annual reports, which had been adopted by the Commission in 2002. It was decided to take these matters up at the next session.

#### **D. Extensions of contracts for exploration**

10. The Commission noted that seven contracts for exploration for polymetallic nodules were due to come to an end between March 2016 and March 2017. In this regard, the Commission noted the need to anticipate the fact some contractors may not be in a position to proceed to exploitation by 2016, and may therefore seek an extension of their current exploration contracts. It was noted that the first applications for extension could be anticipated in September 2015.

11. The secretariat provided the Commission with a preliminary review of the relevant provisions of the regulations and standard clauses relating to the termination and possible extension of such contracts (ISBA/20/LTC/8). The Commission was concerned about the possibility of a number of procedural and substantive problems arising in connection with the implementation of clause 3.2 in the standard contract for exploration. The Commission took note of the analysis presented by the secretariat, on the basis of which the Commission decided that it should draw the attention of the Council to the implications of anticipated applications for extension of contracts for exploration and of the urgent need to provide necessary criteria and procedural aspects regarding the implementation of the relevant provisions of the regulations.

12. The Commission decided to recommend to the Council, pursuant to article 165, paragraphs 2 (a) and (g) of the Convention, that the Commission be requested, as a matter of priority, to formulate draft procedures and criteria for applications for extensions of contracts for exploration, for consideration by the Council at its next session in July 2015.

#### **E. Implementation of training programmes under plans of work for exploration and allocation of training opportunities**

13. The Commission was informed that a total of five training places had been made available by Japan Oil, Gas and Metals National Corporation (JOGMEC) and the Ministry of Natural Resources and Environment of the Russian Federation pursuant to their contracts for exploration with the Authority. A total of 52 candidates on the roster were eligible for both training programmes, while 32 candidates had

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<sup>2</sup> ISBA/16/A/12/Rev.1, annex.

<sup>3</sup> ISBA/18/A/11.

been nominated specifically for the JOGMEC training programme. A total of 17 candidates had confirmed their availability for the Russian training programme.

14. A working group was established to review the training applications in detail. The group then reported back to the full Commission, which decided to recommend five first-ranked candidates and ten alternate candidates, ranked by preference, for the respective training programmes. The selection of candidates was based on considerations of overall qualification of the candidates, including education, working experience, language proficiency, seagoing experience, reasons for seeking training, expected benefit to the nominating Government and other merits embodied in the application and nomination forms, and the requirements stated by the contractors. Subject to these considerations, due regard was also paid to equitable geographical distribution of training opportunities and gender balance.

15. The Commission also decided to streamline the trainee selection and approval process, in response to receiving notice of training opportunities at short notice, outside the regular meetings of the Commission. A full report on the selection process and the names of the recommended candidates, as well as the streamlined procedures are contained in document [ISBA/20/LTC/13](#).

### **III. Applications for approval of plans of work for exploration in the Area**

16. The Commission considered in closed meetings the seven applications for approval of plans of work for exploration that are listed in annex II to the present report. The applications were considered in the order in which they had been submitted.

17. At the session in February, the Commission resumed its consideration of the applications for approval of plans of work for exploration by the Ministry of Natural Resources and Environment of the Russian Federation, UK Seabed Resources Ltd., the Government of India and by Ocean Mineral Singapore Pte Ltd. that had been deferred from the nineteenth session. The Commission was able to conclude its consideration of these applications and adopted recommendations to the Council in respect of each application which are contained in documents [ISBA/20/C/4](#), [ISBA/20/C/5](#), [ISBA/20/C/6](#) and [ISBA/20/C/7](#).

18. In December 2013 applications for approval of plans of work for exploration were submitted by the Federal Institute for Geosciences and Natural Resources of Germany (polymetallic sulphides), Cook Islands Investment Corporation (polymetallic nodules) and Companhia de Pesquisa de Recursos Minerais S.A. (cobalt-rich ferromanganese crusts). These were placed on the agenda of the Commission for the twentieth session.

19. At its meeting in February 2014, the Commission heard presentations of each of the three new applications. Following the presentations, the Commission considered each of the applications in turn and submitted a list of questions to each applicant, based on its initial consideration. The responses to the questions posed to applicants were considered at the July meeting, following which the Commission adopted its report and recommendations to the Council in respect of each of the three applications, as contained in documents [ISBA/20/C/16](#), [ISBA/20/C/17](#) and [ISBA/20/C/18](#).

## **IV. Preparation of draft regulations for exploitation in the Area**

20. In line with the request of the Council (ISBA/17/C/21, para. 20), the Commission continued its preparatory work on the formulation of regulations for the exploitation in the Area.

21. At its meetings in February 2014, the Commission considered a detailed technical study on the development of a financial regime for deep-sea mineral exploitation. The study identified the policy objectives and the financial principles flowing from the Convention and the Agreement, respectively, relating to the financial regime. The study presented a review of comparable mechanisms from different mining regimes, highlighting the range of rates of payment and calculation methodologies. The Commission also discussed current best practice with regard to applicable fiscal regimes and considered mechanisms that may be comparable to the policy and financial objectives of the Authority. Conscious of the magnitude of issues still requiring clarity at this preliminary stage, the Commission formulated and agreed on the terms of reference of a survey seeking the views of all the stakeholders of the Authority.

22. The Commission continued its discussions in July, at which time it also had the benefit of the responses to a stakeholder survey launched by the secretariat in March 2014 aimed at soliciting relevant information for the development of a regulatory framework for the exploitation of minerals in the Area from members of the Authority and other stakeholders. The Commission noted that the survey, which members of the Commission had assisted the secretariat to compile, contained 34 questions focusing on the following four thematic areas: financial terms and obligations; environmental management terms and obligations; health and safety and maritime security; and general considerations on stakeholder communication and transparency. The objective of the survey was to enable the Authority to gain further insight into the current thinking of stakeholders, to identify and prioritize issues requiring further detailed consideration and to formulate a working methodology to address those issues as it continues to develop the regulatory framework. The Commission was provided with a detailed analysis of the 55 responses to the survey that were received, noting that there were 20 responses from Governments, 9 from contractors, 13 from non-governmental organizations, 10 from public and private entities and 3 from private citizens.

23. To prepare for its next meeting, the Commission requested the secretariat to prepare a possible draft framework of the regulations for exploitation. In that regard, the Commission noted with appreciation the work of the secretariat and its external consultants, which had contributed to the excellent progress made during 2014 and emphasized the need for time and resources to continue to be made available to support its work on the draft regulations.

## **V. Matters referred to the Commission by the Council**

### **A. Proposed amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area**

24. As requested by the Council during the nineteenth session, the Commission considered aligning the fee provision in the Nodules Regulations with the fee provisions in the Sulphides Regulations and in the Crusts Regulations which were not consistent. The Commission made a recommendation to the Council that



regulation 21 be amended to that effect. The recommendation of the Commission is contained in document [ISBA/20/C/9](#).

## **B. Analysis of regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area**

25. As also requested by the Council in its decision [ISBA/17/C/20](#), the Commission carried out an analysis of regulation 11.2 of the Nodules Regulations and the Sulphides Regulations which relate to the certificate of sponsorship. In doing so, the Commission observed that regulation 11.2 of the Crusts Regulations was identical in terms and that its analysis therefore extended to that provision also. To assist its analysis the Commission was provided with a background document prepared by the secretariat ([ISBA/20/LTC/10](#)).

26. The Commission noted that regulation 11.2 concerned the form and content of the certificate of sponsorship and set out the criteria and procedures for implementing the requirement of sponsorship by States parties as contained in article 153 and article 4 of annex III to the Convention. Those articles stipulate that, in order to carry out activities in the Area, natural and juridical persons must satisfy two requirements: firstly, they must be nationals of a State party or effectively controlled by a State party or its nationals; secondly, they must be sponsored by one or more States parties to the Convention.

27. The Commission observed that the decision to sponsor an entity that otherwise possesses the necessary qualifications was left to the discretion of the relevant State party or States parties. That implied that the onus was on the sponsoring State to ensure that the entity to be sponsored satisfied the two above-mentioned criteria before it made a decision to sponsor. The Commission also noted that the Convention required the certificate of sponsorship as evidence of the decision to sponsor by the State or States of nationality and of effective control. In addition, the Commission noted that there was no single definition of the expression “effective control” in international law and that the meaning varied considerably depending on context. Conditions and standards defining effective control fell under the competence of the State that exercised it. Thus, it was left to the sponsoring State to elaborate on such conditions to grant its sponsorship within its domestic legal system, should it find it appropriate to do so. The Commission further noted that the Part XI regime, as well as other legal contexts, used the same critical criteria of incorporation, registration and granting of nationality (i.e. regulatory control) to determine effective control. That meant that, at least in relation to entities incorporated in or having the nationality of a sponsoring State, the act of incorporation, or the conferring of nationality, combined with the undertakings given as a sponsoring State, would seem to be sufficient to establish “effective control” for the purposes of satisfying the sponsorship conditions.

28. The Commission stressed that information relating to the certificate of registration and the identification of the principal place of business and domicile of an applicant, together with the certificate of sponsorship, were critical for the Commission to satisfy itself that an applicant met the sponsorship requirements. In the light of those observations, the Commission came to the conclusion that any development of the conditions for the granting of sponsorship in the context of the

Part XI regime would seem more appropriately addressed in the context of domestic laws, if a sponsoring State found it necessary.

29. The Commission believed that it would not be necessary or advisable to further develop the current regulation 11.2.

### **C. Issues relating to monopolization of activities in the Area**

30. In accordance with the request of the Council that it give further consideration to the issue of monopolization of activities in the Area, the Commission considered the issue of the possible alignment of the Nodules Regulations with the Sulphides Regulations and the Crusts Regulations. After a full discussion, and in the light of the background information provided by the secretariat ([ISBA/20/LTC/11](#)), the Commission decided to recommend to the Council that the Nodules Regulations be aligned with the equivalent provision in the Sulphides and Crusts Regulations. The recommendation of the Commission in that regard is contained in annex III to the present report.

31. In relation to this agenda item, the Commission commenced its consideration in February 2014 and continued at its July 2014 meeting. At the conclusion of the July meeting, the Commission agreed that there appeared to be emerging a new way of doing business insofar as applications for plans of work for exploration were concerned, which was compliant with the regulations. The Commission was of the view that this needed to be brought to the attention of the Council at the present time. In doing so, the Commission informs the Council that it will continue to keep this matter on its agenda, and the Council may wish to consider providing further guidance.

### **D. Issues relating to the operation of the Enterprise, in particular on the legal, technical and financial implications for the Authority and for States parties**

32. The Commission recalled that, during the nineteenth session, the Council had requested the Secretary-General, referring where appropriate to the Commission and the Finance Committee, to carry out a study of the issues relating to the operation of the Enterprise, in particular on the legal, technical and financial implications for the Authority and for States parties to the United Nations Convention on the Law of the Sea, taking into account the provisions of the Convention, the 1994 Agreement relating to the implementation of Part XI of the Convention and the regulations on prospecting and exploration for polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts in the Area.

33. The Commission considered a note by the secretariat ([ISBA/20/LTC/12](#)), in which the secretariat explained that it had not been possible to complete the study as requested by the Council, but that draft terms of reference that had been prepared would enable the secretariat to start work on some of the elements of the study.

34. In the discussion on the issue, it was recalled that the Council had decided in 2013 that it was premature for the Enterprise to function independently of the secretariat. It was also recalled that the evolutionary approach set out in the 1994 Agreement applied to the functioning of all organs of the Authority. The point was

also made that the Regulations allowed exploration contractors to elect to offer the Enterprise an equity interest in a joint venture arrangement in lieu of a reserved area, such election to take effect at the time the contractor entered into a contract for exploitation. However, the terms and conditions upon which such equity participation may be obtained needed to be further elaborated on. For that reason, as well as the fact that the Enterprise was required to conduct its initial deep seabed mining operations through joint ventures, the question of joint venture arrangements was crucial and should be addressed in the study.

35. The Commission took note of the information provided by the secretariat and also made preliminary observations on the draft terms of reference for the study requested by the Council. In recognition of the complexity of the issues, as well as the relative priority to be given to those matters, it was also suggested that the secretariat follow an incremental approach in carrying out the various components of the study. In the first instance, priority should be given to identifying gaps, if any, in the current regulatory and procedural regime and suggesting ways, including the formulation of appropriate regulatory and procedural measures, to ensure proper and independent operations of the Enterprise, and identifying the gaps, if any, in existing general policies of the Assembly that were relevant to the operation of the Enterprise. The Commission decided to keep the matter on its agenda for the twenty-first session in 2015, at which time it would consider further the draft terms of reference and any update provided by the secretariat.

## **VI. Conflict of interest**

36. The Commission thanked the secretariat for the guidance provided on the issue of conflict of interest in response to a request made during the nineteenth session. The Commission considered the guidance and agreed that the provisions of rule 11 of its rules of procedure, together with the written undertaking signed by each member upon joining the Commission, were satisfactory. The Commission emphasized that it was primarily incumbent on each member of the Commission to ensure that he/she complied with the obligations set out in the Convention in the interest of transparency and accountability and the evolving workload of the Commission.

## **VII. Status of implementation of the environmental management plan for the Clarion-Clipperton Zone**

37. The Commission met in an open session on 15 July 2014 to review the status of the implementation of the environmental management plan for the Clarion-Clipperton Zone adopted in 2012 for a period of three years. The Commission was provided with a preliminary report commissioned by the secretariat and noted that most of the recommendations in the report were aimed at the secretariat and could be taken into consideration as necessary by the secretariat in preparation for the review and next phase of implementation of the plan. The secretariat took note of the various comments and suggestions made by members of the Commission in connection with the next phase of implementation of the plan. The Council is invited to take note of the status of implementation of the plan and to encourage the secretariat and the Commission to continue their work up to and beyond 2015.

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## **VIII. Data-management strategy of the Authority**

38. The secretariat made a presentation to the Commission on the development of a global deep sea database. The Commission took note with appreciation of the work being undertaken by the secretariat to improve the data-management capacity of the Authority and in particular highlighted the need to incorporate geological data as well as environmental data. The Commission noted that the next phases of the database development would require resources to be allocated in order to validate all environmental and geological data through, inter alia: further data exchanges with the contractors; the securing of the services of a database manager; data modelling; database updating; and maintaining the quality assurance and control of all phases of the database development. The Commission asked the secretariat to provide a further progress report on this important matter at its next meeting and to make the topic of data management a regular item on its agenda.

## **Annex I**

### **General comments of the Commission on the annual reports of the contractors**

Annual reports were submitted as follows:

Polymetallic nodules: Yuzhmorgeologiya, Interoceanmetal Joint Organization, Government of the Republic of Korea, China Ocean Mineral Resources Research and Development Association, Deep Ocean Resources Development Co., Ltd., Institut Français de Recherche pour l'exploitation de la mer, Government of India, Federal Institute for Geosciences and Natural Resources of Germany, Tonga Offshore Mining Limited, Nauru Ocean Resources Inc. and UK Seabed Resources Ltd.

Polymetallic sulphides: Ministry of Natural Resources and Environment of the Russian Federation, China Ocean Mineral Resources Research and Development Association.

#### **General comments**

1. The majority of reports largely follow the general format prescribed by the Commission, and generally focused on work carried out during the reporting year under consideration, in accordance with the suggestions made by the Commission after previous evaluations. A few reports reviewed work from earlier years.
2. Six of the seven pioneer contractors will complete the final five-year phase of their respective contracts in 2016. By the end of that time, it is to be expected that they will have identified a first-generation mine site, obtained good baseline environmental data, developed a mining system prototype and arrangements for processing. Five of those contractors have reported different stages on mining tests and selection of sites in their respective areas.

#### **Exploration work**

3. Most contractors fulfilled the activities planned in their working plan and are directly related to field work carried out the previous year of reporting.
4. The Commission noted that high-resolution maps (2 x 2 m) are being generated using multibeam acoustic measurements by most of the contractors. It was also noted that first-generation mining sites have been defined by some contractors.
5. Few of the contractors have made considerable progress in developing and testing tools for both nodules and sulphides exploration.
6. Geo-acoustic survey linked to natural electric potential measurements proved to be a reliable approach to map the polymetallic sulphide deposits.
7. The Commission recognizes the efforts made by contractors to deliver exploration data to the Authority in accordance with the standard formats.
8. The Commission also recognizes the need for a better template for standardized reporting to the Authority regarding exploration data. The reporting of nodules and sulphides chemical data based on statistics remains valid, but tables with the full chemical analyses should be provided in digital format.

9. A big effort on assessment and reporting resource and reserve estimates should be pursued.

### **Mining tests, mining technology and metallurgical processes**

10. Metallurgical processing has been reported by some contractors using different processes (leaching) with high recoveries for selected elements, such as Cu, Ni, Co, Zn, Au and Ag, as well as for rare earth elements through ion exchange resin techniques.

11. Progress still remains to be made on technology-related issues, particularly with respect to the mining and metallurgical processing of nodules. A few contractors have yet to begin to develop their technological capacity and it may therefore be beneficial if such contractors made a concerted effort by pooling their resources.

### **Environmental monitoring and assessment**

12. The environmental work reported by contractors in 2014 is generally of better quality than that reported in previous years. However, there is still a lack of raw tabular data, as well as detailed taxonomic information (preferably at species level) being provided by contractors. In a few cases there are no geographic reference data reported for the environmental data. Raw tabular data are essential for evaluating potential cumulative and regional impacts on the marine environment. They are also required for the development of the Authority's data management strategy for developing the environmental management plans.

13. The Commission recommends that contractors provide a summary table for the environmental baseline data in the future annual reports. The table should be formulated to itemize environmental baseline data that have been collected in the reporting year and through the contracting periods in separate columns, in reference to the environmental variables that are listed in the recommendations for the guidance of contractors ([ISBA/19/LTC/8](#)). It facilitates the evaluation of the progress in the contractors' environmental monitoring programme and would help contractors to find gaps in their environmental baseline study. The template for the table was developed in the consultation meeting between contractors and the secretariat in January 2012.

14. Contractors are required in some cases to provide and agree with the International Seabed Authority before operations commence an Environmental Impact Assessment for certain types of equipment. This applies particularly for operations relating to polymetallic sulphides on ocean ridges and cobalt-rich ferromanganese crusts on seamounts. The Commission welcomed with appreciation the submission of the first environmental impact assessment prior to dredging operations by one contractor.

15. Several contractors have expressed their appreciation for the Authority's taxonomic and standardization workshops. It is evident that there is considerable variability in the reporting of environmental data by contractors. The taxonomic and standardization workshops are essential to improving data quality and all contractors should attend them.

16. Some contractors have generated high-quality molecular data on seabed fauna which indicate the degree of change in species across the Clarion-Clipperton Zone.

The data support the transregional planning of areas of particular environmental interest, but also indicate that for some taxa additional spatial planning may be required.

17. Contractors undertake as part of their contractual obligations to verify that field activities during exploration are not causing serious environmental harm. Consideration needs to be given by each contractor, especially those working on polymetallic sulphides and cobalt crusts, of how this can be achieved and reported following each cruise.

### **Financial statements**

18. Most contractors have provided a breakdown of expenditure, as recommended in the document [ISBA/15/LTC/7](#). The majority of contractors submitted their financial statements for the 2013 period in a timely and itemized manner. The total amount spent by contractors was \$80.4 million. This is an improvement that was noted by the Commission. It was also noted that half of the contractors have spent more than anticipated in their projected five-year working plan schedule. In this regard, the Commission encourages all contractors to advise and provide further details in the future, whenever there are significant variations in their expenditures vis-à-vis the amounts set forth in their plans of work.

### **Training programme**

19. Most of the contractors report “no training activity”, as they are in the final five-year period of their contracts, and report their designated training as having been completed, in some instances, nearly a decade ago. The Commission would like contractors to consider additional training activities in order to increase the capacity-building carried out in line with regulation 27 of the Nodules Regulations, which provide for revision and development of training programmes from time to time by mutual agreement. It would also like contractors to take into consideration the suggestions set forth in the Recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration ([ISBA/19/LTC/14](#)), in order to provide for the training equivalent of at least 10 trainees as a minimum, by mutual agreement, during each five-year period of the contract.

### **Other matters**

20. Few of the contractors have provided a list of research published in peer-reviewed journals during the reporting year.

21. Few examples currently exist of any collaborative work between contractors. Although several of the contractors mentioned the usefulness of the standardization workshop organized by the International Seabed Authority in Germany in 2013, an effort should be made to encourage greater levels of collaboration by sharing manpower and resources among contractors.

22. A positive trend observed during the reporting period is that some of the contractors have started analysing data on the economic feasibility of nodule mining, and that some of them are providing limited information on mineral resource classification.

**Annex II****List of applications considered by the Commission during the twentieth session of the Authority**

<i>Applicant</i>	<i>Sponsoring State</i>	<i>Date of application</i>	<i>Resource</i>
Ministry of Natural Resources and Environment of the Russian Federation		6 February 2013	Cobalt-rich ferromanganese crusts
UK Seabed Resources Ltd.	United Kingdom	8 February 2013	Polymetallic nodules
Government of India		26 March 2013	Polymetallic sulphides
Ocean Mineral Singapore Pte Ltd.	Singapore	19 April 2013	Polymetallic nodules (reserved area)
Federal Institute for Geosciences and Natural Resources, on behalf of the Federal Republic of Germany	Germany	17 December 2013	Polymetallic sulphides
Cook Island Investment Corporation	Cook Islands	27 December 2013	Polymetallic nodules (reserved area)
Companhia de Pesquisa de Recursos Minerais	Brazil	31 December 2013	Cobalt-rich ferromanganese crusts



## **Annex III**

### **Suggested amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area**

#### **Regulation 21 Consideration by the Legal and Technical Commission**

6. bis The Legal and Technical Commission may recommend approval of a plan of work if it determines that such approval would not permit a State Party or entities sponsored by it to monopolize the conduct of activities in the Area with regard to polymetallic nodules or to preclude other States Parties from activities in the Area with regard to polymetallic nodules.

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## Council

Distr.: General  
18 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Decision of the Council of the International Seabed Authority relating to amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area**

*The Council of the International Seabed Authority,*

1. *Adopts* the amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area as contained in the annex to the present decision;
2. *Decides* to apply the amended regulation 21 provisionally from the date of its adoption by the Council, pending its approval by the Assembly of the International Seabed Authority.

*198th meeting  
18 July 2014*



## **Annex**

### **Regulation 21 Fee for applications**

1. The fee for processing an application for approval of a plan of work for exploration of polymetallic sulphides shall be a fixed amount of 500,000 United States dollars or its equivalent in a freely convertible currency, to be paid in full at the time of the submission of an application.
  2. If the administrative costs incurred by the Authority in processing an application are less than the fixed amount indicated in paragraph 1 above, the Authority shall refund the difference to the applicant. If the administrative costs incurred by the Authority in processing an application are more than the fixed amount indicated in paragraph 1 above, the applicant shall pay the difference to the Authority, provided that any additional amount to be paid by the applicant shall not exceed 10 per cent of the fixed fee referred to in paragraph 1.
  3. Taking into account any criteria established for this purpose by the Finance Committee, the Secretary-General shall determine the amount of such differences as indicated in paragraph 2 above and notify the applicant of the amount. The notification shall include a statement of the expenditure incurred by the Authority. The amount due shall be paid by the applicant or reimbursed by the Authority within three months of the signing of the contract referred to in regulation 25 below.
  4. The fixed amount referred to in paragraph 1 above shall be reviewed on a regular basis by the Council in order to ensure that it covers the expected administrative costs of processing applications and to avoid the need for applicants to pay additional amounts in accordance with paragraph 2 above.
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## Council

Distr.: General  
18 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Decision of the Council of the International Seabed Authority relating to amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area**

*The Council of the International Seabed Authority,*

1. *Adopts* the amendment to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area<sup>1</sup> as contained in the annex of the present decision;

2. *Decides* to apply the amended regulation 21 provisionally from the date of its adoption by the Council, pending its approval by the Assembly of the International Seabed Authority.

*198th meeting  
18 July 2014*

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<sup>1</sup> ISBA/19/C/17.



## Annex

Regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area<sup>2</sup> is amended by the insertion of the following new paragraph immediately following paragraph 6:

7. The Legal and Technical Commission may recommend approval of a plan of work if it determines that such approval would not permit a State Party or entities sponsored by it to monopolize the conduct of activities in the Area with regard to polymetallic nodules or to preclude other States Parties from activities in the Area with regard to polymetallic nodules.

Paragraphs 7 to 11 of Regulation 21 are to be renumbered accordingly.

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<sup>2</sup> ISBA/19/C/17.



## Council

Distr.: Limited  
21 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Decision of the Council relating to an application for the approval of a plan of work for exploration for cobalt-rich ferromanganese crusts by the Ministry of Natural Resources and Environment of the Russian Federation**

*The Council of the International Seabed Authority,*

*Acting on the recommendation of the Legal and Technical Commission,*

*Noting* that, on 6 February 2013, the Ministry of Natural Resources and Environment of the Russian Federation submitted to the Secretary-General of the International Seabed Authority an application for the approval of a plan of work for exploration for cobalt-rich ferromanganese crusts in the Area, in accordance with the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area,<sup>1</sup>

*Recalling* that, in accordance with paragraph 6 (a) of section 1 of the annex to the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982,<sup>2</sup> the processing of an application for the approval of a plan of work for exploration shall be in accordance with the provisions of the Convention, including annex III thereto, and the Agreement,

*Recalling also* that, pursuant to article 153, paragraph 3, of the Convention<sup>3</sup> and paragraph 6 (b) of section 1 of the annex to the Agreement, the plan of work for exploration shall be in the form of a contract concluded between the Authority and the applicant,

*Taking note* of the advisory opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea of 1 February 2011,

1. *Takes note* of the report and recommendations of the Legal and Technical Commission relating to an application for the approval of a plan of work for

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<sup>1</sup> ISBA/18/A/11.

<sup>2</sup> General Assembly resolution 48/263, annex.

<sup>3</sup> United Nations, *Treaty Series*, vol. 1833, No. 31363.



exploration for cobalt-rich ferromanganese crusts submitted by the Ministry of Natural Resources and Environment of the Russian Federation transmitted to the Council,<sup>4</sup> in particular paragraphs 29 to 33 thereof;

2. *Decides*, on the basis of the data and information submitted by the Ministry of Natural Resources and Environment of the Russian Federation, and taking into account the recommendation of the Legal and Technical Commission, to designate area 1 of the application area as identified in the annex to the report and recommendations of the Legal and Technical Commission as the area reserved for the Authority;

3. *Also decides*, taking into account the recommendation of the Legal and Technical Commission, to allocate area 2 of the application area as identified in the annex to the report and recommendations of the Legal and Technical Commission to the Ministry of Natural Resources and Environment of the Russian Federation as the exploration area;

4. *Approves* the plan of work for exploration for cobalt-rich ferromanganese crusts submitted by the Ministry of Natural Resources and Environment of the Russian Federation;

5. *Requests* the Secretary-General of the Authority to issue the plan of work for exploration for cobalt-rich ferromanganese crusts in the form of a contract between the Authority and the Ministry of Natural Resources and Environment of the Russian Federation in accordance with the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area.<sup>1</sup>

*199<sup>th</sup> meeting  
21 July 2014*

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<sup>4</sup> ISBA/20/C/4.



## Council

Distr.: General  
21 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic nodules submitted by UK Seabed Resources Ltd.**

*The Council of the International Seabed Authority,*

*Acting on the recommendation of the Legal and Technical Commission,*

*Noting* that, on 8 February 2013, an application for the approval of a plan of work for exploration for polymetallic nodules was submitted to the Secretary-General of the Authority in accordance with the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area<sup>1</sup> by UK Seabed Resources Ltd., sponsored by the United Kingdom of Great Britain and Northern Ireland,

*Recalling* that, in accordance with paragraph 6 (a) of section 1 of the annex to the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982,<sup>2</sup> the processing of an application for the approval of a plan of work for exploration shall be in accordance with the provisions of the Convention, including annex III thereto, and the Agreement,

*Recalling also* that, pursuant to article 153, paragraph 3, of the Convention<sup>3</sup> and paragraph 6 (b) of section 1 of the annex to the Agreement, the plan of work for exploration shall be in the form of a contract concluded between the Authority and the applicant,

*Taking note* of the advisory opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea of 1 February 2011,

1. *Takes note* of the report and recommendations of the Legal and Technical Commission relating to an application for the approval of a plan of work for

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<sup>1</sup> ISBA/6/A/18, annex.

<sup>2</sup> General Assembly resolution 48/263, annex.

<sup>3</sup> United Nations, *Treaty Series*, vol. 1833, No. 31363.





exploration for polymetallic nodules submitted by UK Seabed Resources Ltd. transmitted to the Council,<sup>4</sup> in particular paragraphs 30 to 34;

2. *Decides*, on the basis of the data and information submitted by UK Seabed Resources Ltd., and taking into account the recommendation of the Legal and Technical Commission, to designate part B of the application area as identified in the annex to the report and recommendations of the Legal and Technical Commission as the area reserved for the Authority;

3. *Also decides*, taking into account the recommendation of the Legal and Technical Commission, to allocate part A of the application area as identified in the annex to the report and recommendations of the Legal and Technical Commission to UK Seabed Resources Ltd. as the exploration area;

4. *Approves* the plan of work for exploration for polymetallic nodules submitted by UK Seabed Resources Ltd.;

5. *Requests* the Secretary-General of the Authority to issue the plan of work for exploration for polymetallic nodules in the form of a contract between the Authority and UK Seabed Resources Ltd. in accordance with the Regulations.

*199th meeting  
21 July 2014*

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<sup>4</sup> ISBA/20/C/5.



## Council

Distr.: General  
21 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic sulphides by the Government of India**

*The Council of the International Seabed Authority,*

*Acting on the recommendation of the Legal and Technical Commission,*

*Noting* that, on 26 March 2013, the Secretary-General of the International Seabed Authority received an application from the Government of India for the approval of a plan of work for exploration for polymetallic sulphides in the Area, which was submitted pursuant to the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area,<sup>1</sup>

*Recalling* that, in accordance with paragraph 6 (a) of section 1 of the annex to the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982,<sup>2</sup> the processing of an application for approval of a plan of work for exploration shall be in accordance with the provisions of the Convention, including annex III thereto, and the Agreement,

*Recalling also* that, pursuant to article 153, paragraph 3, of the Convention<sup>3</sup> and paragraph 6 (b) of section 1 of the annex to the Agreement, the plan of work for exploration shall be in the form of a contract concluded between the Authority and the applicant,

*Taking note* of the advisory opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea of 1 February 2011,

1. *Takes note* of the report and recommendations of the Legal and Technical Commission relating to an application for the approval of a plan of work for

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<sup>1</sup> ISBA/16/A/12/Rev.1, annex.

<sup>2</sup> General Assembly resolution 48/263, annex.

<sup>3</sup> United Nations, *Treaty Series*, vol. 1833, No. 31363.



exploration for polymetallic sulphides submitted by the Government of India to the Council,<sup>4</sup> in particular paragraphs 24 to 27 thereof;

2. *Approves* the plan of work for exploration for polymetallic sulphides submitted by the Government of India;

3. *Requests* the Secretary-General of the Authority to issue the plan of work for exploration for polymetallic sulphides in the form of a contract between the Authority and the Government of India in accordance with the Regulations.

*199th meeting  
21 July 2014*

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<sup>4</sup> ISBA/20/C/6.



## Council

Distr.: General  
21 July 2014

Original: English

---

**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic nodules submitted by Ocean Mineral Singapore Pte Ltd.**

*The Council of the International Seabed Authority,*

*Acting on the recommendation of the Legal and Technical Commission,*

*Noting* that, on 19 April 2013, an application for the approval of a plan of work for exploration for polymetallic nodules was submitted to the Secretary-General of the Authority in accordance with the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area<sup>1</sup> by Ocean Mineral Singapore Pte Ltd., sponsored by the Republic of Singapore,

*Recalling* that, in accordance with paragraph 6 (a) of section 1 of the annex to the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982,<sup>2</sup> the processing of an application for approval of a plan of work for exploration shall be in accordance with the provisions of the Convention, including annex III thereto, and the Agreement,

*Recalling also* that, pursuant to article 153, paragraph 3, of the Convention<sup>3</sup> and paragraph 6 (b) of section 1 of the annex to the Agreement, the plan of work for exploration shall be in the form of a contract concluded between the Authority and the applicant,

*Taking note* of the advisory opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea of 1 February 2011,

1. *Takes note* of the report and recommendations of the Legal and Technical Commission relating to an application for the approval of a plan of work for

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<sup>1</sup> ISBA/6/A/18, annex.

<sup>2</sup> General Assembly resolution 48/263, annex.

<sup>3</sup> United Nations, *Treaty Series*, vol. 1833, No. 31363.



exploration for polymetallic nodules submitted by Ocean Mineral Singapore Pte Ltd. transmitted to the Council,<sup>4</sup> in particular paragraphs 26 to 29;

2. *Approves* the plan of work for exploration for polymetallic nodules submitted by Ocean Mineral Singapore Pte Ltd.;

3. *Requests* the Secretary-General of the Authority to issue the plan of work for exploration for polymetallic nodules in the form of a contract between the Authority and Ocean Mineral Singapore Pte Ltd. in accordance with the Regulations.

*199<sup>th</sup> meeting  
21 July 2014*

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<sup>4</sup> ISBA/20/C/7.



## Council

Distr.: General  
21 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic sulphides by the Federal Institute for Geosciences and Natural Resources**

*The Council of the International Seabed Authority,*

*Acting on the recommendation of the Legal and Technical Commission,*

*Noting that, on 17 December 2013, an application for the approval of a plan of work for exploration for polymetallic sulphides was submitted to the Secretary-General of the Authority in accordance with the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area<sup>1</sup> by the Federal Institute for Geosciences and Natural Resources, sponsored by the Federal Republic of Germany,*

*Recalling that, in accordance with paragraph 6 (a) of section 1 of the annex to the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982,<sup>2</sup> the processing of an application for approval of a plan of work for exploration shall be in accordance with the provisions of the Convention, including annex III thereto, and the Agreement,*

*Recalling also that, pursuant to article 153, paragraph 3, of the Convention<sup>3</sup> and paragraph 6 (b) of section 1 of the annex to the Agreement, the plan of work for exploration shall be in the form of a contract concluded between the Authority and the applicant,*

*Taking note of the advisory opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea of 1 February 2011,*

1. *Takes note of the report and recommendations of the Legal and Technical Commission related to an application for the approval of a plan of work for*

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<sup>1</sup> ISBA/16/A/12/Rev.1, annex.

<sup>2</sup> General Assembly resolution 48/263, annex.

<sup>3</sup> United Nations, *Treaty Series*, vol. 1833, No. 31363.



exploration for polymetallic sulphides submitted by the Federal Institute for Geosciences and Natural Resources transmitted to the Council,<sup>4</sup> in particular paragraphs 28 to 31 thereof;

2. *Approves* the plan of work for exploration for polymetallic sulphides submitted by the Federal Institute for Geosciences and Natural Resources;

3. *Requests* the Secretary-General of the Authority to issue the plan of work for exploration for polymetallic sulphides in the form of a contract between the Authority and the Federal Institute for Geosciences and Natural Resources in accordance with the Regulations.

*199<sup>th</sup> meeting  
21 July 2014*

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<sup>4</sup> ISBA/20/C/16.



## Council

Distr.: General  
21 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Decision of the Council relating to an application for the approval of a plan of work for exploration for polymetallic nodules submitted by the Cook Islands Investment Corporation**

*The Council of the International Seabed Authority,*

*Acting on the recommendation of the Legal and Technical Commission,*

*Noting that, on 27 December 2013, an application for the approval of a plan of work for exploration for polymetallic nodules was submitted to the Secretary-General of the Authority in accordance with the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area<sup>1</sup> by the Cook Islands Investment Corporation, sponsored by the Cook Islands,*

*Recalling that, in accordance with paragraph 6 (a) of section 1 of the annex to the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982,<sup>2</sup> the processing of an application for approval of a plan of work for exploration shall be in accordance with the provisions of the Convention, including annex III thereto, and the Agreement,*

*Recalling also that, pursuant to article 153, paragraph 3, of the Convention<sup>3</sup> and paragraph 6 (b) of section 1 of the annex to the Agreement, the plan of work for exploration shall be in the form of a contract concluded between the Authority and the applicant,*

*Taking note of the advisory opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea of 1 February 2011,*

1. *Takes note of the report and recommendations of the Legal and Technical Commission relating to an application for the approval of a plan of work for*

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<sup>1</sup> ISBA/19/C/17, annex.

<sup>2</sup> General Assembly resolution 48/263, annex.

<sup>3</sup> United Nations, *Treaty Series*, vol. 1833, No. 31363.





exploration for polymetallic nodules submitted by the Cook Islands Investment Corporation transmitted to the Council,<sup>4</sup> in particular paragraphs 24 to 27;

2. *Approves* the plan of work for exploration for polymetallic nodules submitted by the Cook Islands Investment Corporation;

3. *Requests* the Secretary-General of the Authority to issue the plan of work for exploration for polymetallic nodules in the form of a contract between the Authority and the Cook Islands Investment Corporation in accordance with the Regulations.

*199<sup>th</sup> meeting  
21 July 2014*

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<sup>4</sup> ISBA/20/C/18.



## Council

Distr.: General  
21 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Decision of the Council relating to an application for the approval of a plan of work for exploration for cobalt-rich ferromanganese crusts by Companhia de Pesquisa de Recursos Minerais**

*The Council of the International Seabed Authority,*

*Acting on the recommendation of the Legal and Technical Commission,*

*Noting* that, on 31 December 2013, an application for approval of a plan of work for exploration for cobalt-rich ferromanganese crusts was submitted to the Secretary-General of the Authority in accordance with the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area<sup>1</sup> by Companhia de Pesquisa de Recursos Minerais, sponsored by Brazil,

*Recalling* that, in accordance with paragraph 6 (a) of section 1 of the annex to the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982,<sup>2</sup> the processing of an application for approval of a plan of work for exploration shall be in accordance with the provisions of the Convention, including annex III thereto, and the Agreement,

*Recalling also* that, pursuant to article 153, paragraph 3, of the Convention<sup>3</sup> and paragraph 6 (b) of section 1 of the annex to the Agreement, the plan of work for exploration shall be in the form of a contract concluded between the Authority and the applicant,

*Taking note* of the advisory opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea of 1 February 2011,

1. *Takes note* of the report and recommendations of the Legal and Technical Commission relating to an application for the approval of a plan of work for exploration for cobalt-rich ferromanganese crusts submitted by Companhia de Pesquisa

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<sup>1</sup> ISBA/18/A/11.

<sup>2</sup> General Assembly resolution 48/263, annex.

<sup>3</sup> United Nations, *Treaty Series*, vol. 1833, No. 31363.



de Recursos Minerais transmitted to the Council,<sup>4</sup> in particular, paragraphs 26 to 29 thereof;

2. *Approves* the plan of work for exploration for cobalt-rich ferromanganese crusts submitted by Companhia de Pesquisa de Recursos Minerais;

3. *Requests* the Secretary-General of the Authority to issue the plan of work for exploration for cobalt-rich ferromanganese crusts in the form of a contract between the Authority and Companhia de Pesquisa de Recursos Minerais in accordance with the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area.<sup>1</sup>

*199<sup>th</sup> Meeting  
21 July 2014*

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<sup>4</sup> ISBA/20/C/17.



## Council

Distr.: General  
23 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Decision of the Council of the International Seabed Authority relating to the summary report of the Chair of the Legal and Technical Commission**

#### **Submitted by Brazil on the basis of comments and contributions by members of the Council**

*The Council of the International Seabed Authority,*

1. *Takes note with appreciation* of the summary report of the Chair of the Legal and Technical Commission on the work of the Commission during the twentieth session;<sup>1</sup>

2. *Requests* the Commission, as a matter of urgency and as its first priority, to formulate draft procedures and criteria for applications for extensions of contracts for exploration, to be submitted to the Council at its 2015 session, in accordance with section 3.2 of the standard clauses contained in annex IV to the Regulations, which are to be applied in a uniform and non-discriminatory manner to all applications for extension of contracts of exploration; such procedures and criteria should be made available in advance of the 2015 session;

3. *Also requests* the Commission to continue its work on the regulations governing exploitation as a matter of priority and to make available to all members of the Authority and all stakeholders a draft framework for the regulation of exploitation as soon as possible after its February 2015 meeting;

4. *Further requests* the Commission to consider, as appropriate, the submission by the Netherlands on environmental management plans and environmental impact assessments in the regulatory framework for mineral exploitation in the Area<sup>2</sup> in the context of its work on the preparation of draft regulations for exploitation in the Area;

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<sup>1</sup> ISBA/20/C/20.

<sup>2</sup> ISBA/20/C/13.



5. *Calls the attention* of contractors to the issues raised and recommendations made by the Commission on the annual reports of the contractors;<sup>3</sup>

6. *Requests* the Commission to examine ways of ensuring that training opportunities will effectively take into consideration the interests and needs of developing States, in particular those of the landlocked and geographically disadvantaged among them, in accordance with article 148 of the United Nations Convention on the Law of the Sea, taking into consideration the recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration;<sup>4</sup>

7. *Also requests* the Commission to continue to work on issues related to the sponsorship by States of contracts of exploration in the Area, with particular attention to a test of effective control, as well as issues related to monopolization of activities in the Area, taking into consideration, in particular, the concept of abuse of a dominant position;

8. *Further requests* the Commission to prepare draft procedures on the handling of confidential data and information, as provided for in rule 12 of the rules of procedure of the Commission,<sup>5</sup> to be submitted to the Council for consideration and approval not later than at its 2016 session;

9. *Encourages* the secretariat and the Commission to continue their work, up to and beyond 2015, on the implementation of the environmental management plan for the Clarion-Clipperton Zone and encourages the Commission to consider developing environmental management plans in other international seabed area zones, in particular where there are currently exploration contracts, in line with the suggestion by the United Nations General Assembly in paragraph 51 of its resolution 68/70;

10. *Encourages* all contractors to make their environmental data readily and publicly available;

11. *Requests* the Commission to continue to explore initiatives to increase transparency and dialogue on the development of its work, in particular on issues of general interest to member States and other stakeholders of the Authority;

12. *Requests* the Secretary-General to ensure that adequate time and resources continue to be made available to support the work of the Commission, especially on priority issues.

*201st meeting  
23 July 2014*

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<sup>3</sup> Ibid., annex.

<sup>4</sup> ISBA/19/LTC/14.

<sup>5</sup> ISBA/6/C/9.



## Council

Distr.: General  
23 July 2014

Original: English

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**Twentieth session**  
Kingston, Jamaica  
14-25 July 2014

### **Summary report of the President of the Council of the International Seabed Authority on the work of the Council during the twentieth session**

1. The twentieth session of the International Seabed Authority was held in Kingston from 15 to 23 July 2014.

#### **I. Adoption of the agenda**

2. At its 193rd meeting, on 15 July 2014, the Council adopted the agenda for its twentieth session, as contained in document [ISBA/20/C/1](#).

#### **II. Election of the President and Vice-Presidents of the Council**

3. At its 193rd meeting, on 15 July 2014, the Council elected Ambassador Tommo Monthe (Cameroon) as President of the twentieth session of the Council. Subsequently, following consultations in the regional groups, the Council elected as Vice-Presidents the representatives of Bangladesh (Asia-Pacific States), Czech Republic (Eastern European States), Netherlands (Western European and other States) and Argentina (Latin American and Caribbean States).

#### **III. Report of the Secretary-General concerning the credentials of members of the Council**

4. At the 199th meeting, on 21 July 2014, the Secretary-General of the Authority informed the Council that, as at 21 July 2014, credentials had been received from 34 members of the Council. It was noted that, in accordance with the system agreed for the allocation of seats among the regional groups at the first session of the Council, Italy, on behalf of the Western European and other States, would participate in the meetings of the Council in 2014 without the right to vote. In 2015 it would be the turn of the African States to participate in the meetings of the Council without the right to vote.



#### **IV. Election to fill a vacancy on the Legal and Technical Commission**

5. At its 193rd meeting, on 15 July 2014, the Council elected Juan Pablo Paniego (Argentina), Carlos Roberto Leite (Brazil) and Michelle Walker (Jamaica) to fill the vacancies on the Legal and Technical Commission left by the resignations of Víctor Enrique Marzari (Argentina), Kaiser Gonçalves de Souza (Brazil) and Laleta Davis-Mattis (Jamaica), respectively, for the remainder of their terms of office.

#### **V. Report on the status of prospecting and of contracts for exploration, periodic review and overhead charges**

6. At its 194th meeting, on 16 July 2014, the Council considered reports on the status of prospecting and of contracts for exploration ([ISBA/20/C/12](#)), and of consultations regarding the implementation of decision [ISBA/19/A/12](#) of the Assembly on overhead charges ([ISBA/20/C/12/Add.1](#)). The Council was informed that the Federal Institute for Geosciences and Natural Resources had submitted two annual reports in December 2013 and February 2014, respectively, on its prospecting for polymetallic sulphides in the area of the Southern Central Indian Ridge and the Northern Southeast Indian Ridge. As at 24 June 2014, the Authority had concluded 12 contracts for exploration for polymetallic nodules, 3 for exploration of polymetallic sulphides and 2 for cobalt-rich ferromanganese crusts, thus bringing to 17 the number of exploration contracts issued by the Authority, and meanwhile, two plans of work approved in 2012 are still pending for signature of contracts. As for the consultations regarding the implementation of the decision of the Assembly on overhead charges, the Council noted that, as at 31 May 2014, Deep Ocean Resources Development Ltd., G-TEC Sea Mineral Resources NV, Tonga Offshore Mining Limited and the Federal Institute for Geosciences and Natural Resources had agreed in writing to amend their existing contracts to include the new standard clauses on overhead charges; the Japan Oil, Gas and Metals National Corporation, the China Ocean Mineral Resources Research and Development Association and the Government of the Republic of Korea had signed contracts in 2014 containing the new standard clauses; and negotiations were continuing with the Institut français de recherche pour l'exploitation de la mer and Marawa Research and Exploration Ltd.

7. Some delegations urged the Authority to revisit the regulations on prospecting to make them more attractive and possibly more binding. Some delegations expressed concern about the fact that some contractors had not yet accepted the new standard clauses on overhead charges and requested the Secretary-General to find ways to ensure that the decision of the Assembly on overhead charges is implemented on the same footing. The delegation of France indicated that “positive consultations” had taken place between the Institut français de recherche pour l'exploitation de la mer and the secretariat and that arrangements would be made to sign the pending contract by the end of the year. Some delegations enquired about what would happen to the information collected from contractors; in response, the Secretary-General emphasized that information from the various contractors was not standardized and was therefore difficult to merge.

## **VI. Consideration and approval of the recommendations of the Legal and Technical Commission relating to applications for approval of plans of work for exploration**

8. At its 199th meeting, on 21 July 2014, the Council considered, in the same order as the Commission considered, seven reports and recommendations of the Legal and Technical Commission respectively relating to the applications for approval of plans of work for exploration for the three main categories of seabed mineral resources. These were: application for exploration for cobalt-rich ferromanganese crusts submitted by the Russian Federation ([ISBA/20/C/4](#)), application for polymetallic nodules submitted by UK Seabed Resources Ltd. ([ISBA/20/C/5](#)), application for polymetallic sulphides by the Government of India ([ISBA/20/C/6](#)), application for polymetallic nodules by Ocean Mineral Singapore Pte Ltd. ([ISBA/20/C/7](#)), application for polymetallic sulphides by the Federal Institute for Geosciences and Natural Resources ([ISBA/20/C/16](#)), application for polymetallic nodules by Cook Islands Investment Corporation ([ISBA/20/C/18](#)) and application for cobalt-rich crusts by Companhia de Pesquisa de Recursos Minerais ([ISBA/20/C/17](#)).

9. At the same meeting, the Council, on the recommendation of the Legal and Technical Commission, approved all seven of the above-mentioned plans of work for exploration in the Area, designated reserved areas where appropriate, and requested the Secretary-General to issue the plans of work in the form of contracts between the International Seabed Authority and each of the applicants, respectively ([ISBA/20/C/24](#), [ISBA/20/C/25](#), [ISBA/20/C/26](#), [ISBA/20/C/27](#), [ISBA/20/C/28](#), [ISBA/20/C/29](#) and [ISBA/20/C/30](#)).

10. During consideration of the applications, many delegations expressed their satisfaction with the progress made by the approval of the seven new plans of work in the Area. Some delegations suggested that the Commission look into ways to rectify the potential problem of overlapping applications resulting from lack of knowledge about the Area requested by other applicants; the suggestion was echoed by two other delegations.

## **VII. Report of the Chair of the Legal and Technical Commission**

11. At its 196th to 201st meetings, held on 17, 18, 21 and 23 July 2014, the Council considered the summary report of the Chair of the Legal and Technical Commission on the work of the Commission during the twentieth session ([ISBA/20/C/20](#)). The report covered activities of the contractors, including the status of prospecting and of contracts of exploration, consideration of the annual reports of contractors, the periodic review of implementation of plans of work for exploration for polymetallic nodules, extension of contracts for exploration and implementation of training programmes and allocation of training opportunities. It also covered the Commission's work in respect of applications for approval of plans of work for exploration in the Area, preparation of draft regulations for exploitation in the Area, status of implementation of the environmental management plan for the Clarion-Clipperton Zone, conflict of interest of Commission members and the future data-management strategy of the Authority. The Chair also reported on matters referred to the Commission by the Council, including analysis of regulation 11.2 of



the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area, issues relating to monopolization of activities in the Area and issues relating to the operation of the Enterprise, in particular on the legal, technical and financial implications for the Authority and for States parties.

12. Many delegations commended the positive developments with regard to the annual reporting by contractors and called upon all contractors to comply fully with their contractual obligations and, in particular, to pay attention to the issues raised and recommendations made by the Commission on the annual reports of the contractors. A number of delegations urged the Commission to review and update, as necessary, the recommended template for annual reports, taking into consideration the anticipated increase in contracts for exploration and the current workload of the Commission and the secretariat. Delegations urged the Commission, when evaluating the annual reports of the contractors and applications for approval of plans of work in the Area, to continue to provide as full an evaluation as possible, taking into account the confidentiality of information received. Many delegations requested the Commission, in its report and recommendations to the Council relating to an application for a plan of work for exploration, accompanied by a certificate of sponsorship, to indicate whether the sponsoring State has adopted a domestic regulatory framework governing the plan of work for exploration or is developing such framework. Delegations suggested that the Authority encourage contractors to pursue greater levels of collaboration, by sharing manpower and resources among themselves, inter alia, on standardization and taxonomy, environmental and oceanographic studies, cruises and campaigns at sea, acquiring, processing and interpreting geophysical, geological and geochemical data, metallurgical processing and technology-related issues, publishing research in peer-reviewed journals, and on data analysis of economic feasibility.

13. In discussing the training programmes and capacity-building for developing States, several delegations welcomed the decision by the Commission to streamline the trainee selection and approval process. Many delegations expressed their support for the suggestion made by the delegation of Uganda that the Authority hold workshops in landlocked States to create a greater awareness of the work of the Authority. Support was also expressed for the idea of convening workshops for priority issues. The Commission was further requested to examine ways to ensure that training opportunities would effectively take into consideration the interests and needs of developing States, in particular the landlocked and geographically disadvantaged States and the small island developing States. A number of delegations urged contractors to take into consideration the suggestions set forth in the recommendations for the guidance of contractors and sponsoring States relating to training programmes under plans of work for exploration, in order to provide for the training equivalent of at least 10 trainees during each five-year period of the contracts.

14. A number of members and observers contributed to the debate on the extension of contracts for exploration. Delegations expressed their support for the plan to formulate draft procedures and criteria for applications for extension of contracts as a matter of priority. Some delegations wondered whether guidelines and procedures for contract extension were clear. Some delegations stated that, in considering applications for contract extension, the Commission should have sufficient information supplied by the contractor, as set out in paragraph 11.2 of the standard clauses for exploration contracts. Some delegations emphasized that, while

recognizing that there was no automatic extension of the contract, the efforts by the contractors over the past decade must also be recognized; extension of the contract by no means implied negotiation of a new contract, nor did it imply that the contractors must have completed their preparatory work to proceed to the exploitation phase.

15. With regard to the draft regulations for exploitation in the Area, delegations welcomed the progress made by the Commission on the preparation of draft regulations for exploitation in the Area and urged the Commission to continue to work on the issue as a matter of priority. Many delegations requested the secretariat to share its draft framework with member States and other stakeholders of the Authority as soon as possible after its February 2015 meeting, and to establish a mechanism for providing the Commission with early feedback on the framework. Some delegations called for the Commission to make available to all Member States and other stakeholders of the Authority, a general analysis and evaluation of the results of the stakeholder survey, taking into account the confidentiality of the information received. Some delegations urged Member States, in particular developing States and sponsoring States, as well as contractors and other stakeholders of the Authority that have not responded to the survey, to consider doing so as a matter of urgency. A number of delegations expressed their appreciation for the submission by the Netherlands of a proposal to incorporate an environmental management planning in the regulatory framework for mineral exploitation in the Area and requested the Commission to consider that submission in the context of its work on the preparation of draft regulations for exploitation in the Area. It was also suggested that the secretariat convene a workshop, open to broad participation by all relevant stakeholders, to support development of the draft regulations for exploitation prior to the twenty-first session. The Authority was also encouraged to strengthen collaboration with global networks of relevant experts in fields relevant to its activities, particularly for the purpose of drafting the exploitation regulations.

16. Delegations also discussed the issue of “transparency and openness” as an essential element of the work of the Commission and the Authority as a whole. Many delegations commended the Commission for its decision to hold an open session, on 15 July 2014, to review the status of the implementation of the environmental management plan for the Clarion-Clipperton Zone. Strong interest was expressed in increasing transparency and dialogue on the development of the Commission’s work. Many delegations recommended that the Commission continue to explore initiatives, including the holding of open meetings and publishing surveys, in particular on issues of general interest to member States and other stakeholders of the Authority, with a view to ensuring broad participation on those initiatives.

17. Several delegations commended the work being undertaken by the secretariat to develop a global deep seabed database and the decision by the Commission to keep the important topic of data management as a regular item on its agenda, and supported the recommendations and observations made by the Commission in that regard, while also suggesting that the secretariat explore alternatives to ensure the compatibility of the database with other relevant international databases.

18. Some delegations recalled that the Council, at its nineteenth session, had decided to request the Commission to review the provisions of the three sets of

regulations on prospecting and exploration relating to the option of offering an equity interest in a joint venture arrangement, with a view to aligning all three sets of regulations in that respect, and to make a recommendation thereon for consideration by the Council. They suggested that the Council request the Commission to make such a recommendation for consideration by the Council at its next session.

### **VIII. Consideration and adoption of the amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area**

19. Extensive discussions were also conducted on the issues relating to monopolization of activities in the Area, the operation of the Enterprise, effective control by the sponsoring State and conflict of interest of members of the Commission. It was suggested that the Secretary-General provide preliminary guidance on the enforcement of rules relating to conflict of interest and confidentiality, as provided for in rule 13 of the rules of procedure of the Commission, for the consideration of the Council, and to maintain the Council fully informed of any issues that might arise in relation to possible financial interests by members of the Commission on activities relating to exploration and exploitation in the Area.

20. At its 201st meeting, on 23 July 2014, the Council adopted a decision relating to the summary report of the Chair of the Legal and Technical Commission as contained in [ISBA/20/C/31](#).

### **IX. Consideration and adoption of the amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area**

21. At its 198th meeting, on 18 July 2014, the Council considered the amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, as recommended by the Legal and Technical Commission. The Council adopted the amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area in its decision [ISBA/20/C/22](#).

22. At its 198th meeting, on 18 July 2014, the Council considered the amendments to regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, as recommended by the Legal and Technical Commission. With a view to aligning the regulation on monopolization of the Regulations on nodules with that of the Regulations on sulphides and of the Regulations on cobalt-rich crusts, the Council adopted decision [ISBA/20/C/23](#), by which regulation 21 of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area was amended by the insertion of a new paragraph immediately following paragraph 6 and the renumbering of paragraphs 7 to 11 of the Regulations accordingly.

## **X. Report of the Finance Committee**

23. At its 195th meeting, on 17 July 2014, the Council considered the report of the Finance Committee ([ISBA/20/A/5-ISBA/20/C/19](#)) and recommended that the Assembly of the Authority adopt a budget of \$15,743,143 for the Authority's operations for the financial period 2015-2016. The decision of the Council relating to the budget of the Authority for the financial period 2015-2016 and related matters is contained in document [ISBA/20/C/21](#).

24. The Council expressed its appreciation to the Governments of Mexico, the United Kingdom of Great Britain and Northern Ireland and the Republic of Korea for their contribution to the Endowment Fund, and to the Governments of Japan, Norway and China for their contribution to the Voluntary Trust Fund.

25. Support was voiced for the idea of establishing the International Seabed Authority Museum. It was suggested the idea be kept under review and that the Secretary-General prepare a report for the consideration by the Council outlining the objectives of establishing such a museum and how they would be achieved.

## **XI. Status of national legislation**

26. At its 194th meeting, on 16 July 2014, the Council considered the report by the Secretary-General on the status of national legislation relating to deep seabed mining and related matters. A number of delegations welcomed the secretariat's commitment to undertake a comparative study of the existing national legislation, with a view to deriving common elements from the national legislation submitted to it. It was suggested that the secretariat could prepare a guidance document derived from general principles set out in international legislative instruments in time for the next session. Several delegations stated that their national legislation to govern activities in the Area was in the process of development and pending further consideration and adoption.

## **XII. Other matters**

27. The Council discussed a joint proposal by the United Kingdom and Germany regarding the current status of the "Collective arrangement between competent international organizations on cooperation and coordination regarding selected areas beyond national jurisdiction in the North-East Atlantic" ([ISBA/20/C/15](#)). Different views were expressed as to whether the secretariat of the Authority should consider joining the collective arrangement. No decision was made in that respect. Nevertheless, the secretariat of the Authority was requested to enter into discussion with the secretariat of the OSPAR Commission, with a view to reporting back to the Council on the matter in 2015.

## **XIII. Next session of the Council**

28. It was announced that the dates for the next session of the Council would be set following the decision by the Assembly in that respect. It should be recalled that it will be the turn of the group of the Asian and Pacific States to nominate a candidate for the Presidency of the Council in 2015.

## **CONSOLIDATED INDEX TO THE SELECTED DECISIONS AND DOCUMENTS OF THE INTERNATIONAL SEABED AUTHORITY**

Documents of the International Seabed Authority begin with the letters "ISBA". Documents of the first two sessions do not have a sessional number (e.g. ISBA/A/1), but from the third session on they do (e.g. ISBA/3/A/1).

Formal Assembly and Council documents each appear in four series, -/ 1; -/L.1; -/WP.1; and -/INF.1, corresponding to main documents, documents with limited distribution, working papers and information papers respectively. In addition to A and C documents there are also the ISBA/FC (Finance Committee) and ISBA/LTC (Legal and Technical Commission) series.

The Authority does not keep verbatim or summary records of meetings. Sound recordings are made and retained by the Secretariat. Official accounts of the work of the Authority can be found in the successive statements of the Presidents of the Assembly and the Council on the work of their organs, and the annual reports of the Secretary-General.

The Authority publishes annually a compendium of selected decisions and documents from each session. This compendium is available online only from the eighteenth session onwards. These may be cited as, e.g. *Selected Decisions 17*, 1-25; and from the eighteenth session *Selected Decisions 18*, ISBA/18/A/2.

Indexes to the documents of the Authority are available in two formats; a consolidated subject index to the documents and a cumulative index which contains a complete list of documents of the Assembly and the Council from the first session (1994) to the nineteenth session (2013). The documents and indexes are also available in electronic format on the Authority's website at [www.isa.org.jm](http://www.isa.org.jm).

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ISBN-13: 978-976-8243-29-0



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