

Selected Decisions and Documents of the Seventeenth Session





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(11 – 22 July 2011)

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ISBA/17/A/2 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

Date: 13 June 2011

I. INTRODUCTION

1. The present report of the Secretary-General of the International Seabed Authority is submitted to the Assembly of the Authority under article 166, paragraph 4, of the 1982 United Nations Convention on the Law of the Sea (“the Convention”).

2. The Authority is the organization through which States parties to the Convention, in accordance with Part XI of the Convention, organize and control activities in the Area, particularly with a view to administering the resources of the Area. This is to be done in accordance with the regime for deep seabed mining established in Part XI and other related provisions 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 (the “1994 Agreement”) adopted by the General Assembly of the United Nations under the terms of its resolution 48/263 of 28 July 1994. As provided by resolution 48/263 and the Agreement itself, the provisions of the 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 Agreement and Part XI, the provisions of the Agreement prevail.

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 of the Convention to establish international rules, regulations and procedures to prevent, reduce and control pollution of the marine environment from activities in the Area, and to protect and conserve the natural resources of the Area and prevent damage to the flora and fauna (that is, the biodiversity) of the marine environment.

II. MEMBERSHIP OF THE AUTHORITY

4. In accordance with article 156, paragraph 2, of the Convention, all States parties to the Convention are ipso facto members of the Authority. As at 31 May 2011, there were 162 members of the Authority (161 States and the European Union). On the same date, there were 141 parties to the 1994 Agreement. Since the last session of the Authority, Malawi and Thailand have become parties to the Convention and the Agreement (28 September 2010 and 15 May 2011, respectively), and Angola has become party to the 1994 Agreement (7 September 2010).

5. There are still 21 members of the Authority that became parties to the Convention prior to the adoption of the 1994 Agreement but 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. Although members of the Authority which 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 Agreement would remove an incongruity that currently exists for those States. For this reason, each year since 1998, at the request of the Assembly, the Secretary-General has circulated a letter to all members in this position, urging them to consider becoming parties to the 1994 Agreement. In the last such letter, sent in January 2011, attention was drawn to the relevant paragraphs of the report of the Secretary-General for 2010 (ISBA/16/A/2) and to paragraph 3 of General Assembly resolution 65/37 A, calling upon all States to become parties to both the Convention and the Agreement in order to achieve the goal of universal

participation in the two instruments. 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.

III. PERMANENT MISSIONS TO THE AUTHORITY

6. As at 30 April 2011, the following 20 States and the European Union maintained permanent missions to the Authority: Argentina, Belgium, Brazil, Cameroon, Chile, China, Cuba, France, Gabon, Germany, Haiti, Italy, Jamaica, Mexico, Nigeria, Republic of Korea, Saint Kitts and Nevis, South Africa, Spain and Trinidad and Tobago.

IV. PROTOCOL ON PRIVILEGES AND IMMUNITIES OF THE AUTHORITY

7. The Protocol on the Privileges and Immunities of the International Seabed Authority entered into force on 31 May 2003. The Protocol, among other things, 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 missions for the Authority such privileges and immunities as are necessary for the independent exercise of their functions during the period of their missions and the time spent on journeys in connection with their missions.

8. As at 30 April 2011, the number of parties to the Protocol was 32, made up as follows: Argentina, Austria, Brazil, Bulgaria, Cameroon, Chile, Croatia, Cuba, Czech Republic, Denmark, Egypt, Estonia, Finland, Germany, India, Ireland, Italy, Jamaica, Mauritius, Mozambique, Netherlands, Nigeria, Norway, Oman, Poland, Portugal, Slovakia, Slovenia, Spain, Trinidad and Tobago, United Kingdom of Great Britain and Northern Ireland and Uruguay.

9. It is a matter of some concern that, with the exception of Ireland, which acceded to the Protocol on 9 February 2011, there have been no other new ratifications of or accessions to the Protocol since February 2009. The Secretary-General would like to draw the attention of members of the Authority to operative paragraph 47 of General Assembly resolution 65/37 A, in which the Assembly called upon States that had not done so to consider ratifying or acceding to the Protocol.

V. PREVIOUS SESSION OF THE AUTHORITY

10. The sixteenth session of the Authority was held in Kingston from 26 April to 7 May 2010. Jesus Silva-Fernandez (Spain) was elected President of the Assembly for the sixteenth session, and Syamal Kanti Das (India) was elected President of the Council.

11. The Assembly adopted the administrative budget of the Authority for the financial period 2011-2012 in the amount of \$13,014,700. The Assembly also authorized the Secretary-General to establish the scale of assessments for 2011 and 2012 based on the scale used for the regular budget of the United Nations for 2010, taking into account that the maximum assessment rate will be 22 per cent and the minimum rate 0.01 per cent. It was decided that the assessed contribution of Japan would be adjusted to 16.587 per cent. The Assembly, acting on the recommendation of the Council, approved a set of Regulations on prospecting and exploration for polymetallic sulphides in the Area (ISBA/16/A/12/Rev.1) ("the Sulphides Regulations") and also adopted some revisions to the Staff Regulations of the Authority which had become necessary as a result of changes made to the system for administration of justice within the United Nations common system (ISBA/16/A/9).

12. A general debate took place on the annual report of the Secretary-General and the Assembly took note of the proposed substantive work programme of the Authority for 2011 to 2013. Observer status was granted to two organizations; the International Cable Protection Committee and the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic ("OSPAR Commission"). The Assembly also took note of memoranda of understanding signed between the Authority and those organizations. As required by the Convention and the

1994 Agreement, the Assembly elected 17 members of the Council for a four-year period commencing on 1 January 2011 (ISBA/16/A/11).

13. The Council continued its consideration of outstanding issues with respect to the draft Sulphides Regulations, specifically issues relating to the proposed anti-monopoly clause and procedures for dealing with overlapping claims. Revisions were agreed to draft regulation 23. On 6 May 2010, in its decision ISBA/16/C/12, the Council adopted the Sulphides Regulations. In the same decision, the Council also adopted special procedures for the resolution of overlapping claims, to have effect for a period of one year following the date of adoption of the Regulations.

14. In response to a proposal originally submitted by the delegation of Nauru, and following much discussion, the Council decided, in accordance with article 191 of the Convention, to request, for the first time, the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea to render an advisory opinion on three legal questions relating to the obligations and responsibilities of States sponsoring activities in the Area, as contained in document ISBA/16/C/13.

15. With respect to the election of members of the Legal and Technical Commission, scheduled for 2011, the Council reaffirmed the streamlined procedure for the nomination of candidates for election to the Commission as agreed at the thirteenth session (ISBA/13/C/6). The Council also agreed that, for the 2011 election, the size of the Commission may be increased, having due regard to economy and efficiency, to up to 25 members, without prejudice to future elections.

VI. ADMINISTRATIVE MATTERS

16. There were no changes to the structure of the secretariat during the reporting period. The number of established posts remained at 35 (19 Professional and 16 General Service), with one post at the P-5 level remaining vacant. During the period covered by the report, the posts of Executive Officer (P-5) and Editor (P-3) became vacant following resignations and were filled in April 2011 following a recruitment exercise. The Authority follows, *mutatis mutandis*, the recruitment procedures of the United Nations. In accordance with those procedures, the principle of geographical distribution does not apply to the recruitment of General Service staff. The Authority has nevertheless attempted, albeit with limited success, to recruit General Service staff on as wide a geographical basis as possible.

17. In the light of the amendments to the Staff Regulations adopted by the Assembly in 2010, the Secretary-General in January 2011 promulgated a revised edition of the Staff Rules of the Authority (ST/SGB/2011/01). The Secretary-General also promulgated a set of procedures to ensure the appropriate classification and secure handling of confidential data and information entrusted to or originating from the Authority (ST/SGB/2011/03). The procedures are designed to implement article 168 of the Convention and to give effect to the provisions of the rules, regulations and procedures of the Authority relating to prospecting and exploration in the Area. In particular they establish the basic obligations of staff members with respect to the handling of confidential data and information and also specify the standards and procedures for secure handling of confidential data held electronically. Among other things, the procedures require the establishment of a secure data facility within the secretariat for the storage and analysis of confidential data submitted by contractors and applicants for contracts. The new procedures will be implemented progressively throughout 2011.

18. Owing to civil unrest in the area of West Kingston, the headquarters building was closed from 24 to 27 May 2010. As a result of the disturbance, a limited state of emergency was enacted for the parishes of Kingston and St. Andrew from 23 May 2010 to 22 July 2010. Further disruption to the work of the secretariat took place since the offices were closed from 3 p.m. each day, owing to curfews imposed by the security forces in the downtown area.

19. Since the establishment of the Authority in 1996, the secretariat has occupied the second floor and part of the first floor of the building known as Block 11, which has been designated as the headquarters of the Authority.

The terms and conditions upon which the premises are made available to the Authority by the Government of Jamaica are established in a supplementary agreement to the Agreement of 26 August 1999 between the International Seabed Authority and the Government of Jamaica regarding the headquarters of the Authority. Although the part of the building occupied by the secretariat was refurbished in 2000 (at the Authority's expense), the building as a whole is showing signs of age and lack of maintenance. In particular, regular and persistent malfunctioning of the air conditioning system and elevators, both of which are more than 20 years old and obsolete, have caused disruption and inconvenience to the smooth functioning of the secretariat. Discussions are ongoing with the building's owner, the National Land Agency of the Government of Jamaica, regarding a long-term solution to these problems. Pursuant to the Headquarters Agreement, the Jamaica Conference Centre is used for the purposes of the annual meetings of the Authority. Although a limited refurbishment of the Conference Centre was carried out in 2008, including upgrading of the sound and interpretation systems, the building and facilities are also showing signs of age and wear.

VII. BUDGET AND FINANCE

A. Budget

20. The budget for the financial period 2011-2012 was approved by the Assembly at the sixteenth session in the amount of \$13,014,700 (ISBA/16/A/10). This represented an increase of 3.9 per cent over the budget for the previous financial period, mainly attributable to increases in the costs of established posts and maintenance of premises. There was no increase in the budget for the substantive work programme of the Authority.

B. Status of Contributions

21. 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 is based on the scale used for the regular budget of the United Nations, adjusted for differences in membership, with a ceiling assessment rate of 22 per cent and a floor assessment rate of 0.01 per cent. At the sixteenth session, the Assembly approved an adjustment to the scale of assessment for Japan to 16.587 per cent, in conformity with the scale of assessment for Japan's contribution to the budget of the United Nations.

22. As at 31 May 2011, 58.6 per cent of the value of contributions to the 2011 budget due from member States and the European Union had been received from 46 members of the Authority.

23. Contributions outstanding from members for prior periods (1998-2010) totalled \$246,256. Notices are regularly sent to members of the Authority 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 that 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 31 May 2011, 43 members of the Authority were in arrears for a period of two years or more: Belize, Benin, Plurinational State of Bolivia, Burkina Faso, Cape Verde, Comoros, Congo, Democratic Republic of the Congo, Dominica, Equatorial Guinea, Gabon, Gambia, Grenada, Guinea, Guinea-Bissau, Honduras, Lesotho, Liberia, Malaysia, Maldives, Mauritania, Micronesia (Federated States of), Morocco, Palau, Panama, Paraguay, Philippines, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Solomon Islands, Somalia, Suriname, Togo, Tonga, United Republic of Tanzania, Vanuatu, Zambia and Zimbabwe.

24. Also as at 31 May 2011, the balance of the Working Capital Fund stood at \$475,623, against an approved ceiling of \$560,000. In this regard, it will be recalled that, at the sixteenth session, the Finance Committee recommended an increase in the level of the Working Capital Fund, to be implemented over the next two financial periods.

C. Voluntary Trust Fund

25. The Voluntary Trust Fund to enhance 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, on the recommendation of the Finance Committee, in 2003 and amended in 2004 (see ISBA/9/A/9, para. 14; and ISBA/9/A/5-ISBA/9/C/5). The Fund is made up of voluntary contributions from members of the Authority and others. Over the life of the Fund, voluntary contributions from members of the Authority totalling \$178,318 have been received into the Fund. The total amount paid out of the Fund to date is \$305,649, which includes advances made from the funds held on account of the registered pioneer investors (the balance of which now forms the capital of the Endowment Fund for Marine Scientific Research in the Area). As at April 2011, the balance of the Voluntary Trust Fund stood at \$74,321, including accrued interest of \$6,652. No additional contributions have been made to the Fund since December 2009. Since the average annual expenditure from the Fund is approximately \$50,000, it is expected that the current resources in the Fund will be substantially depleted following the seventeenth session. Therefore, unless further voluntary contributions are made, it is anticipated that very little, if any, funding will be available to support participation in the eighteenth session in 2012.

VIII. ENDOWMENT FUND FOR MARINE SCIENTIFIC RESEARCH IN THE AREA

26. The International Seabed Authority Endowment Fund for Marine Scientific Research in the Area was established by the Assembly in resolution ISBA/12/A/11 of 16 August 2006. The Endowment Fund aims to promote and encourage the conduct of marine scientific research in the Area for the benefit of mankind 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.

27. In 2007, the Assembly, on the recommendation of the Finance Committee, adopted detailed rules and procedures for the administration and utilization of the Endowment Fund (ISBA/13/A/6). These rules and procedures provide comprehensive guidance on making applications for assistance from the Fund, the information that must be submitted, the type of activities that are eligible for funding, and the dissemination and reporting of the outcomes of marine scientific research programmes and scientific cooperation programmes. Applications for assistance from the Fund may be made by any developing country or by any other country if the purpose of the grant is to benefit scientists from developing countries. Pursuant to the agreed procedures, an advisory panel was appointed by the Secretary-General in March 2008 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 geographic representation. New appointments will be made to the Panel in 2011.

28. In accordance with the resolution of the Assembly, the initial capital of the Endowment Fund, amounting to \$2,631,803, was derived from application fees paid under resolution II of the Third United Nations Conference on the Law of the Sea by seven former registered pioneer investors that have since entered into contracts with the Authority. Additional contributions to the Fund may be made by the Authority, members of the Authority, other States, relevant international organizations, academic, scientific and technical institutions, philanthropic organizations and private persons. Since its establishment, additional contributions to the Fund have been made by the Governments of Germany (\$250,000), Mexico (\$2,500), Norway (\$250,000), Spain (\$25,514) and the United Kingdom (\$45,053). By the end of December 2010, the capital of the Fund stood at \$3,254,538. Over the life of the Fund to date, total accumulated interest amounts to \$386,588 of which \$275,614 has been disbursed. As at 31 December 2010, in accordance with the financial rules of the Fund, \$22,949 was returned to capital, leaving the sum of \$88,025 available for disbursement in 2011. At present, the Fund's capital is not actively managed to generate income. Prevailing low rates of bank interest mean that comparatively little additional income can be expected in 2011 and 2012.

29. The Endowment Fund is administered by the secretariat of the Authority, which 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. These activities include issuing press releases and promotional materials, maintaining a specially designed page on the Authority's website at <http://www.isa.org.jm/en/efund>, and establishing a network of cooperating institutions that may be interested in offering places on 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 French Research Institute for Exploitation of the Sea (IFREMER); 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 of America); and the International Cooperation in Ridge-crest Studies (InterRidge), an international, non-profit organization promoting interdisciplinary studies of oceanic spreading centres.

30. The total amount of \$275,614 has been disbursed by the Endowment Fund through seven separate awards for activities that promote capacity-building. A total of 30 scientists from developing countries have been recipients of financial support. The recipients to date are from Argentina, Bangladesh, Brazil, Cameroon, China, Costa Rica, Egypt, Guyana, India, Indonesia, Jamaica, Madagascar, Maldives, Mauritania, Nigeria, Palau, Papua New Guinea, the Philippines, Sierra Leone, South Africa, Sri Lanka, Suriname, Thailand, Trinidad and Tobago and Viet Nam. Each of the recipients has been able to participate in international training programmes or in research projects, which would not have been possible without the assistance of the Fund.

31. Details of the projects that had been funded prior to 2010 are listed in the report of the Secretary-General for 2010. Since the sixteenth session, three further awards have been made from the Fund. An award of \$19,600 was made to the National Institute of Oceanography, Goa, India, towards the second Technical Assistance Programme-Marine Scientific Research (TAP-MAR II). This enabled a further four scientists from developing countries, Waheibah Daniels (South Africa), Suzan Gharapaway (Egypt), William Saleu (Papua New Guinea) and Schery Umanzor (Costa Rica), to gain new skills and carry out individual, supervised research projects at the Institute. During the training programme, the participants were acquainted with topics related to the exploration of deep seabed minerals, resource evaluation, marine ecosystems and biodiversity-inclusive environmental impact assessment of offshore projects. They were also given hands-on experience with live projects in relevant areas and training in laboratory and field techniques through visits to sites of marine significance. It is hoped that as a result of this training, research programmes between the trainees, their institutions, and the National Institute of Oceanography will be developed that enable additional and ongoing capacity-building.

32. Two awards of \$25,146 (2010) and \$30,000 (2011) were made to the Rhodes Academy of Oceans Law and Policy to help fund a number of fellowships for students from developing countries and to expand the Academy's training programme to cover issues relating to deep seabed marine science. The Rhodes Academy was founded in 1995 and entails an intensive, three-week course of study, with lectures by leading jurists, practitioners and international law faculty from around the world. It is a cooperative undertaking sponsored jointly by the Center for Oceans Law and Policy of the University of Virginia, Charlottesville, United States of America, the Aegean Institute of the Law of the Sea and Maritime Law (Rhodes, Greece), the Law of the Sea Institute of Iceland (Reykjavik), the Max Planck Institute for Comparative Public Law and International Law (Heidelberg, Germany) and the Netherlands Institute for the Law of the Sea (Utrecht, the Netherlands). More than 400 students from 96 different countries have graduated from the Academy since its establishment. A total of 10 participants benefited from the support of the Endowment Fund in 2010. A further seven students will be supported in 2011.

33. In addition, it will be recalled that an award was made to InterRidge in 2008 for the funding of six marine science fellowships for graduate or postdoctoral students from developing countries during the period 2009 to 2011. Three fellowships had been awarded up to the end of 2010, leaving three fellowships available in 2011. A

call for proposals was made in January 2011 and it is expected that the successful candidates will be announced in June 2011.

34. The secretariat of the Authority 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 11 of its resolution 64/71, 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, inter alia, 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.

IX. LIBRARY, PUBLICATIONS AND WEBSITE

A. Satya N. Nandan Library

35. The Satya N. Nandan Library serves as the main information resource for the secretariat, and for member States and other individuals and institutions looking for 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 focusing on matters relating to the law of the sea, ocean affairs and deep seabed mining. It serves the needs of members of the Authority, permanent missions and researchers interested in information on the law of the sea and ocean affairs, as well as providing essential reference and research assistance to support the work of the staff of the secretariat. In addition, the library is responsible for the archiving and distribution of the official documents of the Authority and assists with the publications programme.

36. The facilities available in the Satya N. Nandan library include a reading room with access to the collection for reference purposes and computer terminals for e mail and Internet access. The specialized research capability of the existing collection continues to develop through an acquisitions programme that is aimed at building upon and strengthening the Library's comprehensive collection of reference materials, and to improve access to information through collecting, cataloguing and preserving relevant documents in print and electronic formats, as well as disseminating information through new products and services. A review of new information technologies and electronic resources is currently being conducted with a view to implement appropriate products to meet the need of users and to improve the services offered.

37. An inventory was also conducted to assess the collection, identify missing items and books which may need repair or replacement, and to identify inconsistencies between the catalogue record and labelling of items to ensure that items corresponded with that of the catalogue. The inventory also provided an opportunity to rearrange the shelves to minimize overcrowding and prevent damage to the books.

38. During the reporting period, 67 books and CD-ROMs and over 400 journal issues were acquired. Some material is now being acquired in electronic format. A concern has been the spiralling cost of subscriptions to legal and technical journals. Simply maintaining current subscriptions now accounts for 50 per cent of the budget allocated to the library. Although the current interest is still more on acquiring publications in print format, present trends in publishing will necessitate a move towards more acquisitions in electronic format in the future. A number of donations were received from institutions, libraries, and individuals, including from the Division for Ocean Affairs and the Law of the Sea of the Office of Legal Affairs of the United Nations, the International Tribunal for the Law of the Sea, the United Nations Educational and Scientific Organization (UNESCO), the United Nations Environment Programme (UNEP), the Food and Agriculture Organization of the United Nations, the United Nations Development Programme, the Intergovernmental Oceanographic Commission of UNESCO (IOC), the Center for

Oceans Law and Policy, University of Virginia, the China Institute for Marine Affairs, the State Oceanic Administration, Division of Marine Geology, Brazil, and the United States Institute of Peace. Individual donations were received from Ambassador Hasjim Djalal and Dr. Philomene Verlaan. A number of staff members also donated publications, many of these from seminars and workshops they attended.

39. The library receives numerous requests for copies of the publications and documents of the Authority. The library also responds to requests for information and guidance on sources of information on subject areas related to the activities of the Authority, the international law of the sea and deep seabed mining, from institutions, non-governmental organizations, academics, government departments and the general public. Some of the areas for which requests were received included: general information on the current activities and the functions of the Authority; law of the sea conferences; current developments in marine mineral resources, and the work of the Authority; application of the Convention to the Caribbean States especially regarding boundary issues in the region; South-East Asia boundary disputes; Africa and the law of the sea; developments in marine mineral exploration, particularly looking at areas of highest interest for investment; Brazil's involvement with marine minerals research; delimitations; geological structure of the Mexico-Pacific Area; multilateral treaty negotiations, especially related to delimitations; responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area; protection of the deep sea environment; and contracts for hydrocarbon exploration. Requests were also received from, and library services utilized by, individual researchers, a number of embassies and permanent missions based in Jamaica, and a variety of academic and research institutions, including the World Wildlife Fund (WWF), Germany; Fairplay Magazine, United Kingdom; University of Munich, Germany; Universidad del Mar, Mexico; National Environment and Planning Agency of Jamaica; Ministry of Foreign Affairs and Foreign Trade, Jamaica; University of Technology, Engineering Faculty; and the University of the West Indies.

B. Publications

40. The regular publications of the Authority include an annual compendium of selected decisions and documents (published in English, French and Spanish) and a handbook containing details, inter alia, of the membership of the Assembly and the Council, the names and addresses of permanent representatives and the names of the members of the Legal and Technical Commission and the Finance Committee.

41. The secretariat also circulates a quarterly newsletter designed to keep member States and other stakeholders informed of new initiatives and current developments with respect to the Authority's programme of work. The newsletter is available via an electronic mailing list or may be downloaded from the Authority's website. So far, more than 150 individuals have subscribed to the mailing list.

42. The Authority publishes the proceedings of its workshops and a range of specialized legal and technical reports. During the past year, the following reports and technical studies have been published:

- (a) Technical Study No. 5: Non-Living Resources of the Continental Shelf Beyond 200 Nautical Miles: Speculations on the Implementation of Article 82 of the United Nations Convention on the Law of the Sea;
- (b) Technical Study No. 6: A Geological Model of Polymetallic Nodule Deposits in the Clarion-Clipperton Fracture Zone;
- (c) Technical Study No. 7: Marine Benthic Nematode Molecular Protocol Handbook (Nematode Barcoding);
- (d) Technical Study No. 8: Fauna of Cobalt-rich Ferromanganese Crust Seamounts;
- (e) Technical Study No. 9: Environmental Management of Deep-Sea Chemosynthetic Ecosystems: Justification of and Considerations for a Spatially-Based Approach.

C. Website

43. The Authority's website contains essential information on the activities of the Authority, primarily in English, French and Spanish. The texts of all the official documents and decisions of the organs of the Authority are available in the six official languages of the Authority. Press releases are available in English and French. The website also hosts electronic copies of workshop proceedings, technical studies and other publications published by the Authority and provides users with access to specialized databases, such as the Central Data Repository, a bibliographical database and the library catalogue, as well as an Internet-based geographical information system that allows the interactive production of some maps.

X. ADVISORY OPINION ON THE RESPONSIBILITIES AND OBLIGATIONS OF STATES SPONSORING PERSONS AND ENTITIES WITH RESPECT TO ACTIVITIES IN THE AREA

44. During the sixteenth session of the Authority, the Council decided, in accordance with article 191 of the Convention, to request the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea to render an advisory opinion on the following three questions:

- (a) What are the legal responsibilities and obligations of States Parties to the Convention with respect to the sponsorship of activities in the Area in accordance with the Convention, in particular Part XI, and the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982?
- (b) What is the extent of liability of a State Party for any failure to comply with the provisions of the Convention, in particular Part XI, and the 1994 Agreement, by an entity whom it has sponsored under article 153, paragraph 2 (b), of the Convention?
- (c) What are the necessary and appropriate measures that a sponsoring State must take in order to fulfil its responsibility under the Convention, in particular article 139 and annex III, and the 1994 Agreement?

45. The request was entered in the list of cases before the Tribunal as Case No. 17: "Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area". Subsequently, by order 2010/3 dated 18 May 2010, pursuant to article 133, paragraph 2, of the Rules of the Tribunal, the President of the Seabed Disputes Chamber invited States parties, the Authority and intergovernmental organizations invited to participate as observers in the Assembly of the Authority to present written statements on those questions. In the order, in accordance with article 133, paragraph 4, of the Rules of the Tribunal, the President further decided that oral proceedings would be held and fixed 14 September 2010 as the date for the opening of the hearing. States parties, the Authority and the aforementioned intergovernmental organizations were invited to participate in the hearing and to indicate to the Registrar, not later than 3 September 2010, their intention to make oral statements.

46. Written statements were submitted by the following 12 States parties: Australia, Chile, China, Germany, Mexico, Nauru, the Netherlands, the Philippines, Romania, the Russian Federation, the Republic of Korea and the United Kingdom. Statements were also submitted by the Authority and three international organizations, Interoceanmetal Joint Organization, the International Union for Conservation of Nature (IUCN) and UNEP.

47. Pursuant to Rule 131 of the Rules of the Tribunal, the Chamber held three public sittings in Hamburg, Germany, from 14 to 16 September 2010. Oral statements were presented by nine States parties and three international organizations, in the following order: International Seabed Authority, Germany, the Netherlands, Argentina, Chile, Fiji, Mexico, Nauru, the United Kingdom, the Russian Federation, IOC and IUCN. The entire hearing was broadcast live over the Internet. The Chamber issued its advisory opinion at a public hearing held on 1 February 2011. The full text of the opinion appears on the website of the Tribunal.

48. In order to facilitate a better understanding of the content of the advisory opinion, particularly for those members of the Authority that did not participate in the proceedings before the Chamber, the secretariat convened a half-day seminar at United Nations Headquarters on 7 April 2011, during which four eminent legal experts were invited to comment on various aspects of the advisory opinion. The experts were Frida Maria Armas-Pfirter, Professor of Public International Law at both the Law School of the Austral University and the War School of the Argentine Navy, Buenos Aires; John Norton Moore, Walter L. Brown Professor of Law at the University of Virginia School of Law in the United States, and Director of the University's Center for National Security Law and the Center for Oceans Law and Policy; Haiwen Zhang, Deputy Director-General of the China Institute for Marine Affairs under State Oceanic Administration and Secretary-General of China Society of the Law of the Sea in Beijing; and Cymie Payne, Distinguished Environmental Law Scholar at Lewis and Clark Law School and Director of the Global Commons Project at University of California Berkeley, Center for Law, Energy and the Environment. The seminar was well attended by permanent representatives and legal advisers of permanent missions to the United Nations, as well as senior professional staff from the United Nations Office of Legal Affairs and the Division for Ocean Affairs and the Law of the Sea.

XI. OVERVIEW OF THE SUBSTANTIVE PROGRAMME OF WORK OF THE AUTHORITY FOR THE PERIOD 2011-2013

49. The substantive functions of the Authority derive exclusively from the Convention, particularly Part XI, and the 1994 Agreement. 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 these areas of work is dependent on the pace of development of commercial interest in deep seabed mining.

50. The work programme for the period 2011-2013 continues to focus primarily on the scientific, technical, legal and policy work necessary to carry out the functions of the Authority under the Convention and the 1994 Agreement. Although many items are interrelated, for ease of reference the work programme is organized thematically around the following major substantive work streams, reflecting the provisions of paragraph 5 of section 1 of the annex to the 1994 Agreement:

- (a) Ongoing supervision of contracts for exploration and award of new contracts as necessary;
- (b) Progressive development of the regulatory regime for activities in the Area;
- (c) Monitoring of trends and developments relating to deep seabed mining activities, including world metal market conditions and metal prices, trends and prospects;
- (d) Collection and assessment of data from prospecting and exploration and analysis of the results;
- (e) Promotion and encouragement of marine scientific research in the Area;
- (f) Database development.

XII. ONGOING SUPERVISION OF CONTRACTS FOR EXPLORATION AND AWARD OF NEW CONTRACTS AS NECESSARY

51. 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 elaborated 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 the Authority's functions.

A. Status of contracts for exploration

52. There are at present eight contractors for exploration for polymetallic nodules in the Area. These are: Yuzhmorgeologiya (Russian Federation); Interoceanmetal Joint Organization (IOM) (Bulgaria, Cuba, Czech Republic, Poland, Russian Federation and Slovakia); the Government of the Republic of Korea; China Ocean Mineral Resources Research and Development Association (COMRA) (China); Deep Ocean Resources Development Ltd. (DORD) (Japan); Ifremer (France); the Government of India; and the Federal Institute for Geosciences and Natural Resources of Germany (BGR). The first six contracts were signed in 2001; the contract with the Government of India was signed in 2002 and the contract with BGR was signed in 2006. Contracts have a fixed duration of 15 years.

53. The rules, regulations and procedures of the Authority contain prescriptive requirements relating to the relationship between the Authority (represented by the Secretary-General) and contractors. These include, inter alia, time-sensitive reporting requirements. In accordance with the terms of their contracts, each contractor is under an obligation to submit an annual activity report. Annual reports are due every year on 31 March. The objective of the reporting requirement is to establish a mechanism whereby the Secretary-General and the Legal and Technical Commission are properly informed of the contractors' activities so as to be able to exercise their functions under the Convention, in particular those relating to the protection of the marine environment from the harmful effects of activities in the Area.

54. The regulations are supplemented by recommendations for guidance issued from time to time by the Legal and Technical Commission. To date, the Commission has issued two sets of recommendations. In 2001, the Commission issued a set of Recommendations for the guidance of the contractors for the assessment of the possible environmental impacts arising from exploration for polymetallic nodules in the Area. These describe the procedures to be followed in the acquisition of environmental baseline data and the monitoring to be performed during and after any activities in the exploration area with potential to cause serious harm to the environment. The recommendations were revised and updated in 2010 to reflect advances in scientific and sampling techniques since 2001 (ISBA/16/LTC/7). In 2009, the Commission issued a set of 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 (ISBA/15/LTC/7). The purpose of these recommendations is to provide guidance to contractors in relation to the books, accounts and financial records to be maintained in accordance with the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (ISBA/6/A/18, annex) ("the Nodules Regulations"), the identification of internationally accepted accounting principles, the format for the presentation of financial information in the annual report, the definition of the actual and direct costs of exploration, and the form of certification of actual and direct exploration expenditures.

55. Each year, the Legal and Technical Commission reviews and evaluates the annual reports provided by contractors and provides any necessary advice to the Secretary-General. The Secretary-General is then able to take up such matters as may be necessary with the individual contractors. During its review of the annual reports in 2010, the Commission expressed general concerns about the reporting of financial expenditure by contractors and about the quality of environmental data provided by contractors.

56. With respect to the reporting of actual and direct exploration expenditure, the Commission noted that contractors had only partially followed the 2009 recommendations for guidance. The Commission also noted that there were significant variations in reported financial expenditure among contractors in respect of similar items. Moreover, the Commission expressed its concern that some reported expenditures could not be classified as "actual and direct exploration expenditure" as defined in the Regulations. The Commission therefore recommended that the contractors be requested to provide with their next annual reports a revised historical breakdown of reported expenditure in accordance with the 2009 recommendations. The Commission also requested the secretariat to prepare for the next session a detailed analysis of the reported expenditure by contractors in order to enable the Commission to provide further guidance to the incoming Legal and Technical Commission on the treatment of such expenditure. In accordance with the Commission's request, such an analysis

has been completed, with the assistance of a consultant, and will be placed before the Commission for its consideration during the seventeenth session. One of the key recommendations of the report is that financial appraisal for potential investors should form one of the components of future reporting, particularly given that the current exploration contracts are entering their final period.

57. With respect to environmental data, the Commission made the general observation that the environmental and exploration work of the current contractors is progressing at a slow pace. The Commission expressed its concern that there was still a lack of raw data being provided by the contractors in spite of numerous requests from both the Commission and the Secretary-General. In view of the completion in 2010, for most of the contractors, of the second five-year period of the 15-year contract for exploration, the Commission requested the secretariat to prepare a detailed analysis of the environmental work carried out by the contractors to date. Such an analysis has been completed and will also be placed before the Commission for its consideration during the seventeenth session. The analysis shows wide variations in the quantity and quality of environmental data being provided by contractors.

B. Pending applications for contracts for exploration

58. In 2008, the Authority received two new applications for approval of plans of work for exploration for polymetallic nodules in reserved areas within the Clarion-Clipperton zone of the Central Pacific Ocean. These applications were submitted by Nauru Ocean Resources Inc. (sponsored by the Republic of Nauru) and Tonga Offshore Mining Ltd. (sponsored by the Kingdom of Tonga). In accordance with the Nodules Regulations, the applications were considered by the Legal and Technical Commission during the fourteenth session. As the Commission was unable to complete its consideration of these applications during that session, the matter was carried over to the fifteenth session. Prior to the fifteenth session, however, the Commission was informed, in a letter dated 5 May 2009 and addressed to the Legal Counsel of the Authority, that the applicants had requested that consideration of their applications be postponed for a number of reasons that were set out in the letter. The Commission took due note of the request and decided to defer consideration of this item until further notice. Since the sixteenth session in 2010, both applicants have declared their intention to pursue the applications and have also submitted supplementary material updating their original applications. The Commission will therefore resume consideration of these two applications at the seventeenth session.

59. On 7 May 2010, the Secretary-General received the first application for the approval of a plan of work for exploration for polymetallic sulphides in the Area. The application was submitted by COMRA, sponsored by China, and relates to an area in the vicinity of the South-West Indian Ocean Ridge. A second application for approval of a plan of work for exploration for polymetallic sulphides, relating to an area on the Mid-Atlantic Ridge, was received on 24 December 2010, submitted by the Ministry of Natural Resources and the Environment of the Government of the Russian Federation, and sponsored by the Russian Federation. Both applications will be considered by the Legal and Technical Commission during the seventeenth session.

XIII. PROGRESSIVE DEVELOPMENT OF THE REGULATORY REGIME FOR ACTIVITIES IN THE AREA

60. 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 a 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

61. The Mining Code so far comprises the Nodules Regulations and the Sulphides Regulations. 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. The Council is presently in the process of elaborating rules, regulations and procedures governing prospecting and exploration for cobalt-rich ferromanganese crusts in the Area.

62. Draft regulations on prospecting and exploration for cobalt-rich ferromanganese crusts in the Area were proposed by the Legal and Technical Commission in 2009. In considering the draft regulations during the sixteenth session, the members of the Council exchanged some general comments concerning the issues that the Council would need to discuss in more detail in relation to the draft regulations, including that of the appropriate size and configuration of areas for exploration. The Council also noted that the draft regulations proposed by the Commission would require further revision in order to bring them into alignment with the text of the Sulphides Regulations as adopted by the Council in 2010. As insufficient time was available during the sixteenth session to undertake a detailed examination of the draft regulations, the Council agreed to take this matter up in 2011. In the meantime, the secretariat was requested to provide a revised text of the draft regulations, taking into account the need to bring the draft regulations into alignment with the Sulphides Regulations. An informal advance text, in English only, of such a draft is available under symbol ISBA/17/C/CRP.1, dated 1 February 2011.

B. Exploitation

63. One of the main problems for potential investors in deep seabed mining is that as yet there are no detailed regulations for the exploitation of the resources of the Area. This makes commercial exploitation of these resources very difficult to contemplate. Pursuant to section 1, paragraph 15, of the annex to the 1994 Agreement, as read with articles 153 and 162(2) (o) (ii) of the Convention, the Council may undertake the elaboration of such rules, regulations and procedures as may be necessary to facilitate the approval of plans of work for exploration or exploitation for seabed minerals any time it deems that such rules are required for the conduct of activities in the Area, or whenever it determines that commercial exploitation is imminent, or at the request of a State whose national intends to apply for approval of a plan of work for exploitation.

64. Although the Assembly considered that it may be premature to develop such regulations immediately, it was noted during the sixteenth session that, as part of the programme of work for the period 2011-2013, the secretariat will commission a preliminary study of some of the issues associated with developing an exploitation code, and will also hold a workshop or seminar to review and discuss the issues raised by such a study. It is proposed to carry out this activity between the final quarter of 2011 and the second quarter of 2012.

65. In response to suggestions by members of the Authority during previous sessions, the secretariat also intends to produce a user's guide to the regulatory regime for deep seabed mining. The guide will be written, as far as possible, in non-technical language so that it is accessible to general users, including prospective applicants for licences, representatives of member States, delegates to the Authority's meetings and staff. The guide will clearly explain the basic features, including the fundamental principles and sources of law on which the system is based, of the system for prospecting, exploration and exploitation with reference to the Convention, the Part XI Agreement and the Regulations and explain in a step-by-step fashion the process for applying for exploration licence, including the differences between the three types of resources for which regulations have been or will be adopted. The guide will also explain the terms and conditions of exploration licences, including provisions relating to environmental protections, and the steps contractors are required to take to comply with such terms and conditions.

C. Protection of the marine environment

66. Under articles 145 and 209 of the Convention, the Authority has the responsibility to establish international rules, regulations and procedures to prevent, reduce and control pollution of the marine environment from activities in the Area, and to protect and conserve the natural resources of the Area and prevent damage to the flora and fauna of the marine environment. Scientific knowledge and understanding of the deep ocean biodiversity associated with the different mineral types is severely lacking. For this reason, the efforts of the Authority since its establishment have been aimed at obtaining a better understanding of this environment. To protect the biodiversity associated with each of the mineral resource types, the associated biodiversity needs to be identified and the gene flow in the province established, and the distribution in the different ocean provinces where the minerals occur needs to be ascertained. An example of the difficulties faced by the Authority can be illustrated with polymetallic sulphide deposits whose origins are hydrothermal vents. The creation of polymetallic sulphide deposits starts at active vent sites, and over time the deposits grow in size and shift away from the active venting in accordance with the theory of plate tectonics. As the plates on which the deposits are found move further from the axis as a result of more polymetallic sulphides being formed through venting, new areas of venting are established that are closer to the axis. At active vent sites, spectacular biota, much of which is unknown to science, is found. The inactive vents, however, do not contain the same spectacular biota as the active vent sites because the environment there is different. They are therefore of lesser interest to scientists when compared with active vent sites. This means that the Authority has much less data on the biota associated with deposits at inactive vent sites, even though these tend to be much larger than at active vent sites.

67. The role of the Authority in this regard can be considered both complementary to and a critical element of wider global efforts aimed at the protection of marine biodiversity in areas beyond national jurisdiction, including the Area. It will be recalled, for example, that, in 2002, at the World Summit on Sustainable Development, Governments committed to improving ocean conservation and management through actions at all levels, giving due regard to the relevant international instruments. This included a commitment to establish representative networks of marine protected areas, including in areas beyond national jurisdiction, by 2012. Also in 2002, the United Nations General Assembly welcomed the World Summit on Sustainable Development commitments and called upon States and relevant international organizations at all levels urgently to consider ways of integrating and improving, on a scientific basis, the management of risks to vulnerable marine biodiversity within the framework of the Convention, consistent with international law and the principles of integrated ecosystem-based management. These targets were reaffirmed in 2009 (see resolution 63/111) when States were urged to “continue and intensify their efforts, directly and through competent international organizations, to develop and facilitate the use of diverse approaches and tools for conserving and managing vulnerable marine ecosystems, including the possible establishment of marine protected areas”.

68. The current level of understanding of deep-sea ecology is not yet sufficient to allow conclusive risk assessment of the effects of large-scale commercial mining. For this reason, many of the technical workshops and research programmes supported by the Authority have been aimed at obtaining a better understanding of the marine environment from recognized experts in the field. These are described in section XVI below. The results of such workshops and research are provided to the Legal and Technical Commission to assist it in its mandate under articles 165(d), (e) and (h), of the Convention to formulate rules, regulations and procedures for the protection of the marine environment from the harmful effects of seabed mining. In pursuance of this mandate, the Commission has before it a proposal for a regional-scale environmental management plan for the Clarion-Clipperton zone, including the designation of areas of particular environmental interest, and will also consider in 2011 a set of recommendations aimed at managing chemosynthetic environments in the global ocean through spatial planning. Given the broad reach and exclusive nature of the Authority’s jurisdiction over the Area, the Authority also cooperates with other competent organizations, such as the OSPAR Commission, in their efforts to better protect biodiversity in areas beyond national jurisdiction.

D. National laws and regulations relating to deep seabed mining

69. In its advisory opinion on the responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area (see paras. 44 to 48 above), the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea affirmed, in response to the third question posed by the Council to the Chamber, 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. While the scope and extent of these laws and regulations and administrative measures depends on the legal system of the sponsoring State, they may include the establishment of enforcement mechanisms for active supervision of the activities of the sponsored contractor and for coordination between the activities of the sponsoring State and those of the Authority. Laws and regulations and administrative measures should be in force at all times that a contract with the Authority is in force. 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 necessary requirement for carrying out the obligation of due diligence of the sponsoring State and for seeking exemption from liability. Particularly as regards the protection of the marine environment, the laws and regulations and administrative measures of the sponsoring State cannot be less stringent than those adopted by the Authority, or less effective than international rules, regulations and procedures.

70. While the Chamber's opinion clarifies the provisions of the Convention and the 1994 Agreement, it also implies that sponsoring States and potential sponsoring States, including developing States that may wish to participate in deep seabed mining by sponsoring plans of work within reserved areas, will need to give consideration to the adoption of appropriate laws and regulations for this purpose. In this regard, participants in the seminar organized by the secretariat at United Nations Headquarters in April 2011 (see para. 48 above) suggested that the Authority may have an important role to play in the development of model legislation for this purpose, particularly taking into account the desirability of harmonization between different jurisdictions and legal systems.

71. Several States have also highlighted the need for national laws and regulations to govern offshore mineral exploration and development within areas under national jurisdiction. In the South Pacific, for example, the Secretariat for the Pacific Community has noted that, despite the recent surge in commercial interest in offshore mining, specific policy, legislation and regulation are lacking in most jurisdictions, particularly in the small island developing States of the Pacific. In this regard also, article 208 of the Convention requires coastal States to adopt laws and regulations to prevent, reduce and control pollution of the marine environment arising from seabed activities within their jurisdiction. Such laws and regulations shall be no less effective than international rules, standards and recommended practices and procedures, including those adopted by the Authority. Article 209 goes on to require States to adopt laws and regulations to prevent, reduce and control pollution of the marine environment from activities in the Area undertaken by vessels, installations, structures and other devices flying their flag or of their registry or operating under their authority, as the case may be. Again, such laws and regulations shall be no less effective than international rules, standards and recommended practices and procedures established in accordance with Part XI of the Convention.

72. In response to these concerns, the Pacific Community has developed a regional approach to assist its member countries. In June 2011, a regional project will be launched to develop a legal and fiscal framework for sustainable resource management of deep sea minerals in the Pacific Islands region. The project is supported by the European Union under the Tenth European Development Fund and will be implemented by the Applied Geoscience and Technology Division of the Secretariat of the Pacific Community. The Authority has been invited to participate, together with the UNEP GRID-Arendal Programme, as a member of the steering committee for the project.

E. Implementation of article 82, paragraph 4, of the Convention

73. As noted in paragraph 3 of the present report, one of the specific responsibilities of the Authority under article 82, paragraphs 1 and 4, of the Convention is the responsibility to distribute to States parties to the Convention the payments or contributions in kind derived from exploitation of the non-living resources of the continental shelf extending beyond 200 nautical miles from the baselines of the territorial sea (the “outer continental shelf”).

74. Under article 82 of the Convention, States or individual operators who exploit the non-living resources of the outer continental shelf are required to contribute a proportion of the revenues they generate from such exploitation for the benefit of the international community as a whole. This proportion is defined as 1 per cent of the value or volume of production at the site, rising by 1 per cent annually until it reaches 7 per cent, at which level it remains. Article 82, paragraph 4, gives the Authority responsibility for distributing these revenues “on the basis of equitable sharing criteria, taking into account the interests and needs of developing States, particularly the least developed and the land-locked among them”. As the competent international institution to administer article 82 payments and contributions, it is reasonable to expect that the Authority should anticipate and take steps towards the implementation of this provision.

75. In February 2009, the Authority collaborated with the Royal Institute of International Affairs (Chatham House), United Kingdom, an independent policy research institution, in convening a seminar as a preliminary step in the exploration of issues associated with the implementation of article 82. As part of this work, the Authority commissioned two studies dealing with the legal and policy issues associated with the implementation of article 82, and the technical and resource issues associated with the outer continental shelf, respectively. The two studies commissioned by the Authority were revised in the light of the views of the experts participating in the seminar and have since been issued as *ISA Technical Study No. 4* (published in December 2009) and *ISA Technical Study No. 5* (published in May 2010).

76. As a follow-up to the 2009 seminar, it had been proposed, as part of the programme of work for the period 2011-2013, to convene an expert group meeting involving representatives of members of the Authority, members of the Legal and Technical Commission and other relevant experts, to consider and help to prepare draft recommendations to the Council and the Assembly on the implementation by the Authority of article 82, paragraph 4, of the Convention. Unfortunately, owing to pressure on time and resources as a result of the advisory proceedings before the Seabed Disputes Chamber, it was not possible to convene such a meeting in 2011. It is hoped that, subject to resources being available, this activity can take place in 2012.

XIV. MONITORING OF TRENDS AND DEVELOPMENTS RELATING TO DEEP SEABED MINING ACTIVITIES, INCLUDING WORLD METAL MARKET CONDITIONS AND METAL PRICES, TRENDS AND PROSPECTS

77. World mineral prices continued to be variable and unsteady throughout 2010, but especially in the opening three quarters of the year. The fourth quarter delivered higher market value. By the end of 2010, nickel prices were still approximately 42 per cent below the highest values experienced in 2007 but were higher than 2008 and 2009 prices. The average per pound price of copper in 2010 reached a record high, but manganese remained slightly lower in value than the high obtained in 2008. The global market value of cobalt is still approximately 50 per cent below the record high value experienced in 2008. It is expected that 2011 will continue to be a time of uncertainty in the mineral marketplace.

A. Activity relating to commercial deep seabed mining

78. In January 2011, the Government of Papua New Guinea granted the world’s first deep sea mining lease to Nautilus Minerals Inc. for the development of its Solwara 1 project in the Bismarck Sea. The lease covers an area of

approximately 59 square kilometres surrounding Solwara 1, which lies 50 kilometres north of the port of Rabaul. The Solwara 1 deposit has a stated resource of 2.2 million tons of ore, including an indicated resource of 870,000 tons at grades of 6.8 per cent copper and 4.8 g/t gold. Nautilus Minerals intends to mine high-grade copper and gold deposits on the seafloor at depths of approximately 1,600 metres. Production is expected approximately two and a half years after full project sanction. It is planned to produce ore at an annual rate of more than 1.3 million tons, containing approximately 80,000 tons of copper and 150,000-200,000 ounces of gold. Ongoing deep-sea drilling is also expected to lead to expansion of the resource base before the start of production. The mining lease has been granted for an initial 20-year term and the Government has exercised its option to take up to a 30 per cent stake in the project as a joint venture partner. The Government will contribute funds to the project in proportion to its interest, including its share of the exploration and development costs incurred to date.

79. Another company interested in marine mining, Neptune Minerals, restructured its operations in 2010. Although not presently operational, the company maintains an interest in 25 prospecting licences for seafloor massive sulphide deposits on the continental shelves of New Zealand, the Federated States of Micronesia, Papua New Guinea and Vanuatu, covering over 278,000 square kilometres of seafloor. The newest ocean mining company, Dorado Ocean Resources, is a Hong Kong-based company founded in 2010. The company was created by Odyssey Marine Exploration, a shipwreck exploration and recovery company, which leveraged its knowledge of ocean exploration and exploitation technology to enter the marine minerals marketplace. In August 2010, Dorado Ocean Resources commissioned a 100-metre research vessel, *Dorado Discovery*, and outfitted the vessel with the latest in ROVs (remotely operated vehicles) and survey equipment. In the first 100 days of its exploration campaign the company reported having identified high-grade seafloor massive sulphide deposits in the South Pacific around the Solomon Islands and Vanuatu.

B. Developments in ocean technology relevant to seabed mining

80. The undersea technology marketplace continues to mature, especially as the offshore oil and gas industry, for example, continues to move into deeper and deeper water. In particular, the past two decades have seen rapid progress in the development of mature marine technology, particularly ROVs and autonomous underwater vehicles (AUVs) with the capability of operating safely and efficiently at great depths. Development of ROV systems began in the early 1970s and the technology is today considered mature and robust. Many specialized tooling systems have been created to allow for efficacious surface intervention using ROVs in support of ultra-deepwater oil and gas drilling operations. These tools are analogous to the tools that will eventually collect minerals from the seafloor and it can be expected that ROV and AUV technology will find application in exploration for marine minerals. Nautilus Minerals Inc., for example, made extensive use of ROVs for detailed site surveys where basic visual, advanced sub-bottom imagery and rock coring operations were conducted at its exploration tenements off the coast of Papua New Guinea. Nautilus also made use of the mature technology being used by the DeBeers Group for diamond mining off the coast of Namibia and South Africa in developing its proposed mining equipment for seafloor massive sulphides.

81. In 2010 there was a major oil spill in the Gulf of Mexico caused by a series of system failures on board the semi-submersible drill rig Deepwater Horizon. This disaster showed the current state of ROV technology with continuous live video transmission from the wellhead during operations attempting to stop the flow of oil into the ocean. While it did take a considerable amount of time to finally kill the well, the capability of remote technology was highlighted during these operations with advanced robotic operations. The knowledge learned as part of this unfortunate event may prove useful when considering the potential impacts of mineral extraction on the marine environment.

82. Deep-water ROV operations, 4,000 metres of seawater and beyond, are limited to only a few operational groups that are predominantly scientifically focused. Canada, France, Germany, India, Japan, the Russian Federation and the United States all have scientific efforts performed in territorial waters, in addition to research programmes conducted in the Area. In addition, various private enterprises are currently trying to build the next generation of full-ocean-depth submersible systems. The systems under consideration are a new generation of

human occupied vehicle (HOV) which “flies” through the water as opposed to the current and past generation of undersea vehicles that would sink to the desired location and move slowly through the terrain. These new HOV systems are currently operational but only to a limited depth capability.

83. The PP Shirshov Institute in Russia operates the *Mir 1* and *Mir 2* submersibles. These are 6,000-metre rated deep ocean research vehicles that have been in use since 1987. The submersibles gained great fame in their many dives and filming activities for the film *Titanic*. The twin submersibles are three-person vehicles and are classed by the Germanischer Lloyds group in Germany. In 2010 the submersibles completed a three-year research expedition on Lake Baikal in Siberia. The expedition made a total of 178 dives, the deepest of which was to 1,640 metres. Very interesting discoveries were made, most important among them the hard gas hydrate hills under the sediments at the bottom of the lake. For 2011, the two *Mir* submersibles will be deployed to dive in Lake Geneva, Switzerland. The project will be managed through l’Ecole Polytechnique Fédérale de Lausanne, with researchers from the Universities of Geneva and Neuchâtel. In the spring and summer of 2012, Deep Ocean Expeditions is planning to return to the *Titanic* wreck site with the *Mir* submersibles for the one hundredth anniversary of the shipwreck, which occurred on 14 April 1912.

84. The French research institute, Ifremer, operates *Nautile*, a deep ocean research submersible rated to a maximum depth of 6,000 metres. The submersible was launched in 1987 and accommodates a cabin for three occupants. The submersible operates from its mothership, the *Pourquoi Pas?*. In January 2010, *Nautile* was mobilized on the support ship *Atalante* and performed a short two-dive pre operational mission before engaging in four missions from March to September 2010. The first three missions took place west of Mexico for geology and biology exploration on the East Pacific Rise as well as in the Guaymas Basin and Gulf of Mexico; the last mission aimed to study the biodiversity and the potential resources in the exclusive economic zone of French Polynesia. During this expedition, *Nautile* completed a total of 83 dives. A major reparation standby is now necessary and scheduled during the first semester of 2011, which aims to modify and replace some of the titanium frame parts. Included in the scope of work for 2011 is the improvement of the positioning and navigation system (which will use similar components to the *Victor* ROV and AUV systems) with completion of the original video system replacement with current standard high-definition cameras.

85. At Woods Hole Oceanographic Institution in the United States a programme was formalized in 2010 for the submersible *Alvin* to a phased approach to upgrade its capacity to 6,500 metres. A decision was made by Woods Hole and the National Science Foundation to seek dual certification for the submersible, to include both American Bureau of Shipping and United States Navy certification. This has and will continue to produce a comparative review process of rules and regulations between the Naval Sea Systems Command and American Bureau of Shipping rules, as efforts are made at Woods Hole to seek mutual approval for design changes. As the reconciliation effort continues to match the rule requirements, it is likely that the commercial code will experience significant review to address what is likely to be areas of concern by the United States Navy that have traditionally not been addressed in the American Bureau of Shipping rules.

86. The Japan Agency for Marine-Earth Science and Technology operates the *Shinkai 6500* submersible. This submersible performed 63 dives in 2010 and had accomplished a total of 1,240 dives by the end of 2010. The Agency’s primary research focus is on the genesis of submarine hydrothermal deposits and cobalt-rich manganese crusts, as well as for generative systems of methane clean energy source.

87. China has been developing the *Jiaolong 7000* human occupied vehicle (HOV) for many years. *Jiaolong 7000* is a three-person submersible designed to dive to 7,000 metres, equipped with a full suite of scientific sensors in addition to assorted subsystems, including manipulators, cameras, navigation systems, lighting, life support, communications, ballast and structure. In July 2010, this vehicle descended to a depth of 3,759 metres. Operations are planned for 2011 to take the vehicle to its full depth capability, which would make this system the deepest diving HOV currently operational.

88. Advancement in AUV capabilities continues to be one of the most rapidly developing areas of marine technology. There are currently over 50 commercial manufacturers and research groups building more than 120

different AUV platforms. These systems are now fully operational in the commercial marketplace and no longer a laboratory curiosity. *Autosub* from the National Oceanography Centre, Southampton, United Kingdom, has completed over 270 missions travelling more than 3,500 kilometres. Natural Resources Canada and the Canadian Department of Defence used an *Arctic Explorer* AUV to perform a seafloor survey in 2010. This AUV spent 11 consecutive days under Arctic ice completing more than 1,000 kilometres of mapping to help define the continental shelf under the provisions of article 76 of the Convention. In April 2011, researchers from Woods Hole used an AUV to survey a vast area of the Central Atlantic Ocean, during which they successfully located the remains of Air France flight 447. These examples illustrate the capabilities and the cost-effectiveness of such vehicles for seafloor mapping operations over large areas.

C. Assessment of the economic potential of rare earth elements contained in seafloor mineral deposits

89. Possible shortages in the supply of rare earth elements and other metals considered critical “technology metals” have continued to receive an increasing amount of attention in many countries, especially among the major producers of electronics and emerging technologies such as battery systems, hybrid cars, wind turbines and other renewable energy technologies, which require increasing amounts of these metals. Based on the recommendations of the Authority’s workshop on the results of the Geological Model and advice from several experts, the secretariat has conceptualized a market-oriented study to help assess the economic potential of rare earth elements and other trace elements contained in seabed deposits.

90. In the case of rare earth elements, it is expected that in the longer term, new land-based sources will be developed outside of China and related activities are under way, for example in the Mountain Pass mine in California. Given the projected increase in commodity prices and the high investment cost involved in developing and processing deposits on land, the competitiveness of seabed minerals may improve through profitable by-product operations. The objective of the study is to determine whether seabed resources could become an alternative source of these metals and if trace metals other than the traditional metals of interest potentially represent an additional incentive for seabed mining. The geographic variation of trace metal concentrations in seabed deposits and the variation with water depth is largely understudied and existing geochemical data for the various types of deposits are dispersed among different organizations. Moreover, metallurgical factors, including possible ore processing routes and related costs for extracting such trace metals, remain poorly studied.

91. The technical study is designed as a multidisciplinary effort requiring expertise in geology, geochemistry, mining, metallurgy, mineral economy and quantitative geography. More specifically, the ongoing project aims to (a) determine trace metals of economic interest contained in the various deposit types, (b) assess the monetary value of the ores, taking into account the additional value of trace metals and considering metallurgical cost factors of ore processing and (c) identify geographic areas of interest for the various deposit types.

92. During the first phase of the project in 2010, the secretariat has initially undertaken an in-house analysis of information on trace metal concentrations from the literature, data available from the Central Data Repository and unpublished data from different sources. Based on the ongoing monitoring of the global mineral economy, a dedicated database of trace metal concentrations and market prices has been set up, allowing for an overview assessment of the theoretical maximum value of the ores per metric ton in major mineral provinces. The initial assessment was based on simplified model assumptions and did not take the economic and technical practicability of the metallurgical ore processing and resulting recovery rates for individual metals into account. However, purely based on metal grades and current commodity prices, the preliminary results indicate that rare earth elements and other trace metals may significantly increase the potential return on investment, compared to the existing economic models for the major metals of interest, such as nickel, cobalt, copper and manganese. For example, in the cases of polymetallic nodules in the Clarion-Clipperton zone, the preliminary results indicate that the added value from trace metals in terms of the total metal content is in the order of 60 to 70 per cent of the combined value of the major target metals. The overview analysis results suggest similar values for polymetallic nodules in the Indian Ocean and for cobalt-rich ferromanganese crusts in the central equatorial Pacific Ocean. It has,

however, to be stressed that these values represent potential maximum figures, not considering highly complex metallurgical factors and other parameters to be considered in economic feasibility models of seabed mining.

93. Based on these promising indications that are consistent with similar investigations at different research institutions, the secretariat has initiated a second phase of the project, which will also address the technical and economic viability of the extraction of trace metals under investigation with the help of external key expertise. Several economic feasibility studies exist on the potential return on investment from the major target metals, including a recent technical study on the investment and operating costs of the collector equipment for polymetallic nodules. However, to assess the potential return on investment for seabed mining, it is essential to investigate the entire ensemble of economic and technical conditions for main-product and by-product operations, including the recovery rates for individual metals. Multidisciplinary input from experts in their respective fields as well as from national and corporate sources is required, especially with regard to ore- processing routes and more consolidated geochemical analysis data. During the second phase of the project, different scenarios to recover rare earth elements and other trace metals shall be addressed in more detail, for example as by-products from nickel and copper processing. The secretariat has identified several key experts and additional data sources for relevant deposit types and locations.

94. The final products shall be made available to all stakeholders in 2012 and will include a publication in the *ISA Technical Study* series, the integration of the acquired geochemical data into the public Central Data Repository and a geographical information system (GIS) product, including relevant data and thematic maps of geographic areas of interest.

XV. COLLECTION AND ASSESSMENT OF DATA FROM PROSPECTING AND EXPLORATION AND ANALYSIS OF THE RESULTS

95. In 2003, during an international workshop held at Nadi, Fiji, the Authority launched a project to develop a geological model of polymetallic nodule deposits in the Clarion-Clipperton zone. This project was completed in December 2009, when a final workshop to introduce the results of the model was held in Kingston. Subsequently, the core outputs of the project, namely the geological model and a Prospectors' Guide, were published as *ISA Technical Study No. 6*. The model consists of digital and hard copy maps and tables describing the predicted metal content and abundance of deposits in the Clarion-Clipperton zone. The Prospectors' Guide presents all potential proxy data variables identified as important indicators of metal content and abundance and outlines specific data sets that qualify for use in the model.

96. A new initiative on the collection and analysis of GIS data on the geology of the South Atlantic Ocean is under development. The project is based on a similar project conducted by the Geological Service of Brazil in the western part of the South Atlantic and is designed to assemble, integrate and disseminate all available data on the geology and the mineral resources of the entire South Atlantic Ocean in a single geo-referenced environment with interactive mapping capabilities. The project, which was conceived as a result of needs identified during the Authority's sensitization seminars held in Rio de Janeiro, Brazil, in November 2008 and Abuja, Nigeria, in March 2009, is a collaborative effort drawing on the combined knowledge of countries bordering the South Atlantic Ocean and research institutions from other regions. In particular, the intention is for developing countries of the region to benefit from the transfer of knowledge and technologies used by the Geological Service of Brazil through mechanisms of South-South cooperation. The research activities and the GIS data and mapping product developed by the Geological Service for the western part of the South Atlantic have proved to foster resource exploration on the basis of a better knowledge of deposits and the dissemination of related information.

97. To date, the secretariat has initiated a programme involving a variety of institutions and data contributors which aims in the first instance to accumulate geospatial data from marine scientific research, and then to compile a freely available data and visualization product that supports the exploration and sustainable use of mineral resources both in the Area and in neighbouring areas within national jurisdiction. The programme will also contribute to capacity development with regard to resource exploration and geographic information management

including GIS methods for spatial resource assessment and the development of multipurpose marine cadastres. In 2010, the secretariat identified a significant dataset comprised of geological sampling data, geophysical, bathymetric and other information available from the Research Institute for Geology and Mineral Resources of the World Ocean, of the Russian Federation. The analogue data collected during four scientific cruises undertaken in the 1980s cover a large portion of the study area within a geo-transect between Angola and Brazil. In cooperation with the Russian and the Brazilian partners, these data have been digitized and integrated into the GIS product; the cruise reports have been translated in English and metadata have been created.

98. All resource data and related geographic information accumulated in the course of the project are being integrated into the Central Data Repository and GIS. While the scope of the Central Data Repository is global, the South Atlantic project represents the first effort to populate the databases with high-resolution local- and regional-scale geographic information available from diverse institutions for different parts of the ocean.

99. To date, the project activities have mainly related to data acquisition from diverse sources and the compilation of the final GIS product, which is scheduled for release in 2012. While the acquisition and processing of additional data are ongoing, a capacity-development and outreach programme to address the needs of experts and government agencies in developing countries is currently under development.

XVI. PROMOTION AND ENCOURAGEMENT OF MARINE SCIENTIFIC RESEARCH IN THE AREA

100. Under article 143 of the Convention, the Authority has a general responsibility to promote and encourage the conduct of marine scientific research in the Area and to coordinate and disseminate the results of such research when available. It also has a duty under articles 145 and 209 to ensure effective protection of the marine environment from harmful effects which may arise from activities in the Area. The most immediate and practical way in which the Authority has begun to implement its responsibilities under the Convention and to fulfil its various mandates under paragraph 5 of section 1 of the annex to the 1994 Agreement, particularly under subparagraphs (f) to (j), has been the establishment of a series of expert workshops, seminars and meetings. The Endowment Fund also contributes to the development of capacity to carry out marine scientific research in the Area.

101. A key factor for the Authority is that, although a significant amount of basic and applied research has been done in the past or is still in progress, it is broadly accepted that the current level of knowledge and understanding of deep-sea ecology is not yet sufficient to allow conclusive risk assessment of the effects of large-scale commercial seabed mining, as opposed to exploration. In order to be able in future to manage the impact of mineral development in the Area in such a way as to prevent harmful effects to the marine environment, it will be essential for the Authority to have better knowledge of the state and vulnerability of the marine environment in mineral-bearing provinces. This includes, inter alia, knowledge of baseline conditions in these areas, the natural variability of these baseline conditions and their relationship with impacts related to mining. It is also important that such data are standardized, including taxonomic information.

A. Technical workshops

102. The objective of the technical workshops convened by the Authority is to obtain the views of recognized experts in the protection of the marine environment and other specific subjects under consideration and to obtain the most recent marine scientific research results pertinent to the subject matter. In order to disseminate the results as broadly as possible, the proceedings of the workshops are published in book format and on the Authority's website. The outcomes of these workshops have also been submitted to the Legal and Technical Commission to assist it in its work. Most of the international workshops convened by the Authority to date have covered issues associated with managing the possible impacts of mining on the marine environment. They are increasingly recognized by the international scientific and research community as important and authoritative contributions to the specialized scientific literature on deep seabed mining.

103. In November 2010, the Authority convened an international workshop to develop a regional environmental management plan for the Clarion-Clipperton zone. The workshop was convened in response to a request by the Legal and Technical Commission at the fifteenth session. At that time, the Commission had concluded that to prevent future irreversible damage to the marine environment, and taking into account its mandate under article 165, paragraphs (d), (e) and (h), of the Convention, and regulation 31(2) of the Nodules Regulations, the development of polymetallic nodule resources in the Clarion-Clipperton zone demanded a rational and comprehensive environmental management plan for the region as a whole, based on the best available scientific knowledge. Such a plan should include a clear definition of the conservation objectives for the zone, as well as a comprehensive environmental monitoring programme and the definition of a network of representative areas, based on sound scientific criteria, for environmental purposes. The plan should also be fully consistent with the precautionary principle, but should be flexible in order to allow changes as and when new scientific information is gathered. The Commission had therefore recommended that a workshop be convened in order to obtain the best possible scientific and policy advice on the formulation of an environmental management plan at the regional scale for this area.

104. The workshop was attended by 35 participants including seven members of the Commission, as well as representatives from members of the Authority, contractors, the Census of Marine Life, the OSPAR Commission and WWF. The main product of the workshop was a draft environmental management plan for the Clarion-Clipperton zone. The draft plan addresses all the issues that need to be considered for environmental management, specifically in the zone. It includes a summary of the legal regime associated with the management plan, the locations of a network of proposed areas of potential environmental interest and associated proposals for the management of these areas. The draft plan is also written in such a way as to be consistent with the scientific criteria for the identification of ecologically or biologically significant areas in need of protection in open-ocean waters and deep-sea habitats, and scientific guidance for selecting areas to establish a representative network of marine protected areas, including in open-ocean waters and deep-sea habitats, adopted by the Conference of the Parties to the Convention on Biological Diversity at its ninth session in 2008 (COP decision IX/20, annexes I and II, respectively). It may be recalled that in adopting those criteria, the Conference of the Parties urged the parties and invited other Governments and relevant international organizations to apply these criteria and to take action to protect such areas. The plan will be considered by the Legal and Technical Commission at the seventeenth session (ISBA/17/LTC/WP.1).

B. Strengthening and coordination of international cooperation in marine scientific research

105. At all of the Authority's workshops, the need for cooperation between scientists and coordination of their efforts has been raised repeatedly; hence the second major element in the Authority's efforts to promote marine scientific research has been to act as a catalyst for international collaboration in projects which will help to manage the impact of deep seabed mining and related activities. Specific recommendations from these workshops have included proposals for:

- (a) Collaborative studies on the natural variability of the deep-sea ecosystem, consisting of interdisciplinary variability studies of areas under contract, and unification and standardization of research and development methods;
- (b) Cooperative biological research on the typical latitudinal and longitudinal ranges of benthic species, the rate and spatial scales of gene flow and the natural spatial and temporal patterns and scales of benthic community variability;
- (c) Taxonomic coordination utilizing recognized experts to assist in the correct identification of animal fauna living on the deep seabed, for the purposes of establishing the geographical ranges of species and thus the likelihood of their extinction by a mining operation;

- (d) The creation of databases by the Authority to enable contractors to keep up to date with the environmental data and information collected by other contractors and researchers, and to facilitate the work of the Legal and Technical Commission and the other organs of the Authority;
- (e) Collaboration in the development of technology, including data-sharing, participation in tests and joint environmental investigation.

106. The Authority has taken steps to progressively address these recommendations in its substantive programme of work. However, it is clear that much more collaborative work among contractors, marine research organizations and the Authority is required if the international community is to be able to take informed decisions on measures required for better environmental management of the Area.

107. Based on the experience gained from previous collaborations, a number of partnerships have been implemented and others have been identified for future consideration. These include a collaboration with the Global Census of Marine Life on Seamounts (CenSeam) programme to obtain data on seamount biodiversity in the western Pacific Ocean, and a collaboration with the Biogeography of Deep-Water Chemosynthetic Ecosystems (ChEss) programme of the Census of Marine Life to obtain relevant species lists for fauna associated with polymetallic sulphide deposits in the Area.

108. The objective of the arrangement with CenSeam was to obtain new data on seamount biodiversity in the western Pacific Ocean. The area identified as of greatest interest, and where very few seamounts have been sampled, stretches west from the Hawaiian Islands to the Marianas Trough in a band between approximately 8°N and 24°N. Sampling work took place between 2007 and 2009. The final report from the collaboration will be published in 2011 as *ISA Technical Study No. 8*. The report contains a complete species list of organisms found at the crust and non-crust locations sampled, representative images of each species listed, and full sample data (latitude and longitude, seamount name, depth and other appropriate information). The report also identifies information gaps and makes suggestions on how best to increase the knowledge of communities associated with cobalt-rich crusts and their vulnerability to commercial activity associated with these minerals, including recommendations that may be reflected in future guidance to exploration contractors. An expert workshop was held in Vancouver, Canada, in May 2011 to review the outcomes of the collaboration and to assist the Authority in deciding the direction of environmental study with regard to cobalt-rich crusts. The participants in the workshop noted that there was a lack of biological data available in the area of potential cobalt-rich crust deposits and further research should be encouraged. While the findings and conclusions of the original study were confirmed, the participants were able to come to conclusions regarding additional factors driving ecosystem structure at seamounts. The recommendations of the workshop will be made widely available in due course.

109. The international community is becoming more concerned with the need to protect chemosynthetic ecosystems found at hydrothermal vent sites from human impact. On the basis of a proposal by ChEss, an international workshop took place in Dinard, France, from 31 May to 4 June 2010, with the objective of formulating a general approach for the design of networks of areas for the environmental protection of hydrothermal-vent and cold-seep ecosystems, and to outline research needs to assist the spatially based ecosystem management of human impacts in deep-sea chemosynthetic ecosystems. Thirty-one experts in ocean governance, industry, and marine scientific research from 14 countries participated in the meeting, with the goals of formulating general guidelines for the conservation of vent and seep ecosystems at regional and global scales and outlining research needs to improve plans for the spatial management of vent and seep ecosystems. The report of the workshop sets out the first design principles for the comprehensive management of chemosynthetic environments in the global ocean and serves to introduce chemosynthetic ecosystems into the discourse of systematic marine spatial planning. The Authority was a co-sponsor of the workshop and has published the report of the workshop as *ISA Technical Study No. 9*. The recommendations from the workshop will also be considered by the Legal and Technical Commission at the seventeenth session.

110. The Census of Marine Life, which ended its 10-year cycle in 2010, greatly advanced understanding of the environment, including that of the deep sea, but much remains unknown. As a follow-up initiative, an International

Network for Scientific Investigations of Deep-Sea Ecosystems (INDEEP) has been established. The aim of INDEEP is to create a global network of committed scientists, including a substantial proportion of younger generation scientists, with a wide variety of skills to maintain and further develop the international collaborations initiated during the Census of Marine Life. INDEEP will work to address key gaps in knowledge relating to deep-sea ecosystems and provide a framework to bridge the gap between scientists and policymakers. It is expected that this will be a source of new environmental data and collaborations in the years to come. The secretariat participated in the inaugural meeting of INDEEP, which took place in New Orleans in December 2010.

111. It is recalled that in June 2009, in another type of collaboration, the Secretary-General of the Authority and the Secretary-General of COMRA signed a memorandum of understanding aimed at enhancing future cooperation. As a follow-up to that development, in November 2009 the School of Oceanic and Earth Science of Tongji University, Shanghai, China, which is affiliated with COMRA with regard to research projects for deep seabed activities, offered to provide three to five scholarships for master's and doctorate degree candidates from developing countries in the field of marine sciences. Candidates for these scholarships would be jointly selected by the Authority and Tongji University. The scholarship programme was announced by the Secretary-General during the sixteenth session and applications were open from 8 May 2010 to 31 January 2011. Following a review and shortlisting process, two candidates from Mozambique and one candidate from Madagascar were selected for master's degree programmes and one candidate from Mozambique and one from the Lao People's Democratic Republic were selected for doctoral studies. All five candidates will commence their studies in Shanghai, China, in the fall of 2011.

112. In October 2010, the Authority also became a participant, as a host institution, in the United Nations-The Nippon Foundation of Japan Fellowship Programme for Human Resources Development and Advancement of the Legal Order of the World's Oceans. This means that prospective applicants for fellowships under the Programme would be able to select the Authority as a host institution for the purposes of carrying out their research programmes.

C. Regional sensitization seminars on activities in the Area

113. In March 2011, the Authority held the fifth in its series of regional sensitization seminars on marine minerals and other issues relevant to the work of the Authority. The seminar took place in Kingston and was intended for the benefit of the Caribbean States. There was considerable interest in the seminar from the permanent missions to the Authority, as well as relevant Jamaican institutions. Representatives from Barbados, Guyana and Mexico also attended the seminar.

114. The purpose of the regional sensitization seminars, which have been held since 2007, 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 marine scientific research being undertaken in the Area by international research organizations. 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 recovery of seabed minerals, as well as presentations on relevant regional issues with respect to the law of the sea. Previous seminars have been held in Manado, Indonesia (March 2007); Rio de Janeiro, Brazil (November 2008); Abuja, Nigeria (March 2009); Madrid (February 2010) and Kingston (March 2011).

XVII. DATABASE DEVELOPMENT

115. The secretariat maintains a Central Data Repository, which is comprised of the following core data sets: a sea floor massive sulphides database; a cobalt-rich ferromanganese crusts database; a polymetallic nodules database; a web-based GIS; the library catalogue; a bibliographic database; and a seabed patents database. The value of this programme is that it provides a location where all members of the Authority can have access to all non-proprietary data which have been provided to the Authority. The Central Data Repository is also important as

a source of information from which to create a baseline for the purposes of environmental impact assessment. As noted above, the Authority is also acquiring a large amount of data for the South Atlantic Project, particularly from the Russian Federation. The data include processed heat flow data, sediment thickness data (from seismic) and bathymetric data. These data will be incorporated into the Central Data Repository.

XVIII. CONCLUDING REMARKS

116. Following many years of work by the Legal and Technical Commission and the Council, the Authority should complete in 2011 a comprehensive exploration code covering the three main types of seabed mineral resources — polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts. This would mark an important milestone in the evolution of the Authority. At the same time, it is noticeable that private sector interest in the potential for deep seabed mining has increased over the past year as the global economy begins to recover from the recent downturn. This is evidenced by the request by Nauru Ocean Resources Inc. and Tonga Offshore Mining Ltd. to reinstate their applications for plans of work before the Legal and Technical Commission as well as by the number of enquiries by other entities and groups of entities that have been made about possible applications for plans of work for exploration in the Area. In addition, there has been increased interest on the part of deep ocean technology companies in participating in the seminars and workshops organized by the Authority. It remains the case, however, that investments which originate from the private sector will inevitably be guided largely by financial considerations, including the impacts of national taxation, payments to the Authority and debt financing. The responsibility of the Authority in these circumstances is to begin the process to develop fair and equitable policies and regulations for the exploitation of marine minerals.

117. The preparation of material in support of the request for an advisory opinion from the Seabed Disputes Chamber dominated the work of the secretariat during the second half of 2010 and the first part of 2011, drawing on resources that would otherwise have been available for some of the activities originally foreseen in the work programme. Nevertheless, the opinion proved to be a milestone not only in the life of the Authority but also in the law of the sea and provided important clarification of some of the more difficult aspects of the Part XI Agreement. The universal reaction to the opinion, including from academia, members of the Authority, and the seabed mining industry, has been positive, in that it has provided much-needed certainty in the interpretation of the obligations and responsibilities of sponsoring States under the Convention and the Agreement. This is an encouraging sign for the Authority and its member States, because it suggests that the commercial sector is developing confidence in the legal regime for the orderly development of the resources of the Area that has been put in place over the past 13 years.

118. As the level of interest in commercial seabed mining has increased, the Authority has also been placed under increasing pressure to deliver an appropriate level of environmental protection for the Area; an area beyond national jurisdiction that covers a large part of the surface of the Earth. The Authority is a unique organization, in that it has the power to take necessary measures in accordance with the Convention, at a global scale, to ensure the protection of the marine environment from harmful effects arising from activities in the Area. The measures currently under consideration by the Authority in this regard include proposals for an environmental management plan at the regional scale for the Clarion-Clipperton zone and proposals for the management of chemosynthetic environments in the global ocean. A critical factor in these efforts is the need for better science in order to better understand the deep sea environment, including more data and improved standardization of data, especially relating to taxonomy. At the same time, it is vital that efforts by States and competent organizations to better manage threats to biodiversity on the high seas are coordinated with the efforts being undertaken by the Authority for the Area. While the Area and the high seas are subject to different legal regimes, clearly set out in the Convention and the 1994 Agreement, the two areas are physically interrelated. Cooperation is thus essential in order to ensure that measures taken for the high seas and for the Area are complementary. This is exemplified by the cooperative relationship under development between the Authority and the OSPAR Commission.

ISBA/17/A/5 Decision of the Assembly relating to financial and budgetary matters

Date: 25 July 2011
134th meeting

[ISBA/17/A/L.2]

The Assembly of the International Seabed Authority,

*Acting on the recommendation of the Council, and taking into account the recommendations of the Finance Committee,*¹

1. *Urges* the members of the Authority to pay their assessed contributions to the budget on time and in full;
2. *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;
3. *Expresses appreciation* to those members of the Authority which announced contributions to the Endowment Fund and the Voluntary Trust Fund during the seventeenth session;
4. *Strongly encourages* members to make voluntary contributions to the Endowment Fund and the Voluntary Trust Fund of the Authority and ask the Secretary-General to seek expert advice on the investment of the capital of the Endowment Fund and consult the relevant authorities at United Nations Headquarters;
5. *Expresses its appreciation* to the Secretary-General for the report to the Finance Committee on the implementation of the budget and for the efforts being made to effect savings in the budget of the Authority during the 2011-2012 financial period, and urges the Secretary-General to continue those efforts;
6. *Appoints* PricewaterhouseCoopers as independent auditor for 2011 and 2012, and requests the auditors to express, in future reports, an opinion on the effectiveness of the internal controls of the Authority;
7. *Requests* the Finance Committee, at its next meeting, to consider and make recommendations on the adoption of the International Public Sector Accounting Standards;
8. *Also requests* the Finance Committee, at its next meeting, to consider and make recommendations on whether the International Seabed Authority should subscribe to the statute of the International Civil Service Commission;
9. *Authorizes* the Secretary-General, to the extent necessary and on an exceptional basis, to make an advance of up to \$30,000 from the interest accrued on the Endowment Fund to supplement the Voluntary Trust Fund.

¹ See ISBA/17/A/3-ISBA/17/C/3.

ISBA/17/A/8 Decision of the Assembly of the International Seabed Authority
relating to the commemoration of the thirtieth anniversary of the
1982 United Nations Convention on the Law of the Sea

Date: 25 July 2011
134th meeting

[ISBA/17/A/L.3]

The Assembly of the International Seabed Authority,

Recognizing that 10 December 2012 will mark the thirtieth anniversary of the 1982 United Nations Convention on the Law of the Sea, opened for signature in Montego Bay, Jamaica, which entered into force on 16 November 1994,

Recalling the historic significance of the Convention as one of the most comprehensive legal instruments negotiated under the auspices of the United Nations, and emphasizing its importance as the legal framework within which all activities in the oceans and seas must be carried out,

Reaffirming the importance of the codification and designation by the Convention of the seabed and ocean floor and subsoil beyond the limits of national jurisdiction, as well as the resources of the Area, as the common heritage of mankind,

Reaffirming also the importance of the work of the International Seabed Authority as the organization through which States parties shall organize and control activities in the Area, particularly with a view to administering the resources of the Area in accordance with the relevant provisions of the Convention and the 1994 Agreement relating to the implementation of Part XI of the Convention, on behalf of mankind as a whole,

Expressing support for the convening of a commemorative meeting of the United Nations General Assembly on Monday, 10 December 2012, to mark the thirtieth anniversary of the Convention,

1. *Agrees* to convene a special meeting during its eighteenth session to commemorate the thirtieth anniversary of the opening for signature of the 1982 United Nations Convention on the Law of the Sea;
2. *Requests* the Secretary-General of the International Seabed Authority to undertake activities in observance of the anniversary;
3. *Encourages* members of the International Seabed Authority and the wider international community to commemorate this important milestone.

ISBA/17/A/9 Decision of the Assembly of the International Seabed Authority relating to the advisory opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea on matters relating to the responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area

Date: 25 July 2011
134th meeting

The Assembly of the International Seabed Authority,

1. *Welcomes* the decision of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea to respond to the request made on 6 May 2010 by the Council of the International Seabed Authority for the Chamber to render an advisory opinion;¹

2. *Takes note with appreciation* of the advisory opinion on the responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area delivered by the Chamber on 1 February 2011.²

ISBA/17/A/10 Statement of the President on the work of the Assembly of the International Seabed Authority at its seventeenth session

Date: 26 July 2011

1. The seventeenth session of the Assembly of the International Seabed Authority was held at Kingston, from 11 to 22 July 2011. The Assembly held its 131st to 134th meetings.

I. ADOPTION OF THE AGENDA

2. At its 131st meeting, on 12 July 2011, the Assembly adopted its agenda for the seventeenth session (ISBA/17/A/1).

II. ELECTION OF THE PRESIDENT AND VICE-PRESIDENTS OF THE ASSEMBLY

3. At the 131st meeting, Peter Thomson (Fiji) was elected President of the Assembly for the seventeenth session. Following consultations in the regional groups, the representatives of Ghana (Group of African States), Chile (Group of Latin American and Caribbean States), Russian Federation (Group of Eastern European and Other States) and Belgium (Group of Western European and Other States) were elected Vice-Presidents.

¹ ISBA/16/C/13.

² Case No. 17, "Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area", concerning the request for an advisory opinion of the Seabed Disputes Chamber.

III. ELECTION TO FILL A VACANCY IN THE FINANCE COMMITTEE

4. At its 131st meeting, the Assembly elected David Wilkens (Germany) as member of the Finance Committee for the remainder of the term of Michael Hackethal (Germany).

IV. REQUEST BY THE CENTER FOR OCEANS LAW AND POLICY, UNIVERSITY OF VIRGINIA SCHOOL OF LAW, FOR OBSERVER STATUS IN THE ASSEMBLY

5. At its 131st meeting, the Assembly considered a request for observer status by the Center for Oceans Law and Policy, University of Virginia School of Law, and decided to invite the Center to participate as an observer in its meetings, pursuant to rule 82 (1) (d) of the rules of procedure of the Assembly.

V. ANNUAL REPORT OF THE SECRETARY-GENERAL

6. At the 132nd meeting, on 18 July 2011, the Secretary-General introduced his annual report to the Assembly (ISBA/17/A/2), as required by 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 sixteenth session and outlined the progress that had been made in the implementation of its work programme for the period 2011-2013.

7. He advised the Assembly that a project under consideration was a preliminary study of some of the issues associated with the development of an exploitation code, to be followed by a workshop or seminar in the second quarter of 2012.

8. He indicated that the Secretariat intended to produce a user's guide to the regulatory regime for deep seabed mining, which will describe the system for prospecting, exploration and exploitation, with reference to the Convention, the Agreement relating to the implementation of Part XI of the Convention and the Regulations of the Authority.

9. The report also covered administrative matters, the Authority's budget as well as the Voluntary Trust Fund, and the Endowment Fund for Marine Scientific Research. As at 31 May 2011, there were 162 members of the Authority (161 States and the European Union), and 141 parties to the Agreement. Since the last session, Malawi and Thailand have become parties to the Convention and the Agreement (28 September 2010, 15 May 2011, respectively) and Angola has become party to the Agreement (7 September 2010).

10. He pointed out that private sector interest in the potential for deep seabed mining had increased over the past year, as evidenced by the requests from Nauru Ocean Resources Inc., sponsored by Nauru, and Tonga Offshore Mining Limited, sponsored by Tonga, to reinstate their applications for approval of their plan of work for exploration for polymetallic nodules; and as shown by numerous enquiries about possible applications for contracts for exploration in the Area. In addition, he observed that there had been increased interest on the part of deep ocean technology companies in participating in workshops organized by the Authority, as the global economy continues to recover. With the increased level of commercial interest in seabed mining, the Authority was also under pressure to deliver an appropriate level of environmental protection for the Area. In this regard, the proposals for an environmental management plan for the Clarion-Clipperton Zone and for the management of chemosynthetic environments in the global oceans were measures under urgent consideration.

11. The Secretary-General stated that the completion of a comprehensive exploration code covering the three main types of seabed mineral resources — polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts — would mark an important milestone in the evolution of the Authority.

12. Following the presentation by the Secretary-General, the Minister of State, Ministry of Foreign Affairs and Foreign Trade of Jamaica, Marlene Malahoo Forte, made a statement on behalf of the Government of Jamaica, the

host country of the Authority. The Minister said that the National Land Agency, which managed the secretariat building, had been in close dialogue with the Authority on the concerns raised by the Secretary-General in his report concerning the maintenance of the facilities.

13. She stated that Jamaica would introduce a draft resolution during the session to encourage the commemoration of the thirtieth anniversary of the United Nations Convention on the Law of the Sea in 2012 and that it would also submit a similar draft resolution at the United Nations in New York that would seek to have the Organization convene a commemorative meeting on 10 December 2012. The Minister encouraged other Member States to mark the occasion to raise awareness about the Convention, which was opened for signature in Montego Bay, Jamaica, on 10 December 1982.

14. With regard to the annual report of the Secretary-General, statements were also made by the delegations of Argentina, Bangladesh, Brazil, Burkina Faso, Cameroon, Canada (on behalf of Canada, Australia and New Zealand), Chile, China, Cuba, France, Ghana, Japan, Mexico, Netherlands, Nigeria, Norway, Republic of Korea, Russian Federation, Senegal, South Africa, Trinidad and Tobago, Tunisia, Uganda and the United Kingdom of Great Britain and Northern Ireland. The observer delegation of the United Nations Secretariat also made a statement.

15. 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 2011-2013.

16. With regard to the regulatory work of the Authority, delegations urged the Authority to continue work at finalizing regulations for prospecting and exploration for cobalt-rich ferromanganese crusts that occur on seamounts in the deep oceans. The draft regulations were completed by the Legal and Technical Commission in 2009 and recommended to the Council for adoption. Delegations also welcome the proactive position adopted by the Authority to include in its programme of activities for the period 2011-2013 the commissioning of a preliminary study of some of the issues relating to the development of an exploitation code through the hosting of a seminar.

17. Delegations supported the efforts by the secretariat towards the implementation in the near future of article 82 (4) of the Convention with respect to the distribution by the Authority of payments or contributions derived from the possibly imminent exploitation of non-living resources from the continental shelf beyond 200 miles, in view of the number of recommendations already issued by the Commission on the Limits of the Continental Shelf. For that reason, delegations expressed their interest in participating in an expert group meeting to prepare draft recommendations to the Council and the Assembly as proposed in the annual report of the Secretary-General.

18. Welcoming the cooperation between the Authority and OSPAR, delegations encouraged the Authority to pursue further cooperation with relevant institutions having a mandate over activities in the oceans so as to ensure a consistency of approach as well as comprehensive protection of the marine environment within and beyond the national jurisdiction. It was also emphasized that the responsibilities of the Authority should be considered in the broader context of developments within the law of the sea and in particular, within the context of 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.

19. Delegations noted with concern the tardiness of the submission by contractors of their environmental data, which hampers the Authority to discharge the responsibilities entrusted to it by the Convention and the Agreement with respect to the development of mineral resources in a sustainable manner. In order to remediate to that situation, delegations encouraged contractors to share best environmental practices and access to their environmental databases in view of raising environmental reporting standards and of expanding the database of the Authority.

20. With regard to the Voluntary Trust Fund, delegations expressed their appreciation for it, noting that it had helped to ensure the participation of members from developing countries in meetings of the Legal and Technical Commission and the Finance Committee and encouraged contributions in order to avoid the depletion of the Fund.

21. At the 133rd meeting of the Assembly, Japan announced a contribution of \$100,000 to the Endowment Fund stating that building the expertise of scientists from developing States would encourage the expansion of marine research, which could only be to the benefit of mankind. Subsequently, Mexico announced a contribution of \$2,500 and Nigeria announced a contribution of \$10,000 each to the Endowment Fund and the Voluntary Trust Fund.

VI. REPORT AND RECOMMENDATIONS OF THE FINANCE COMMITTEE

22. At its 134th meeting, on 22 July 2011, the Assembly considered the report of the Finance Committee (ISBA/17/A/3-ISBA/17/C/3).

23. On the basis of the recommendations of the Council contained in document ISBA/17/C/18, the Assembly adopted the decision contained in document ISBA/17/A/5.

24. The President of the Assembly also extended appreciation on behalf of the Assembly to the outgoing Chairman of the Finance Committee, Hasjim Djalal (Indonesia) for his contribution to the work of the Authority.

VII. ELECTION OF MEMBERS OF THE FINANCE COMMITTEE

25. At its 134th meeting, the Assembly elected, by consensus, 15 members of the Finance Committee for the period from 1 January 2012 until 31 December 2016:

Aung, Zaw Minn (Myanmar)

Armas-Pfirter, Frida María (Argentina)

Bakanov, Aleksey P. (Russian Federation)

Choudhary, Pradip K. (India)

Elliott, Trecia (Jamaica)

Graziani, Francesca (Italy)

Kavina, Pavel (Czech Republic)

Laki, Duncan M. (Uganda)

Myklebust, Olav (Norway)

Ségura, Serge (France)

Storani, Reinaldo (Brazil)

Whomersley, Chris (United Kingdom)

Wilkens, David C. M. (Germany)

Yamanaka, Shinichi (Japan)

Yao, Jinsong (China)

VIII. APPOINTMENT AND REPORT OF THE CREDENTIALS COMMITTEE

26. At its 131st meeting, on 12 July 2011, the Assembly appointed its Credentials Committee in accordance with rule 24 of its rules of procedure. The following were elected members of the Credentials Committee: Argentina, Brazil, Germany, Kenya, Namibia, New Zealand, Republic of Korea, Russian Federation and Saudi Arabia. Subsequently, Jaqueline Moseki (Kenya) was elected by the Committee as its Chairman.

27. The Committee held one meeting, on 19 July 2011, during which it examined the credentials of representatives participating in the seventeenth session of the Assembly. The Committee had before it a memorandum by the secretariat dated 19 July 2011 on the status of those credentials. The report of the Committee is contained in document ISBA/17/A/6.

28. At its 134th meeting, on 22 July 2011, the Assembly adopted the report of the Committee. The decision of the Assembly relating to credentials is contained in document ISBA/17/A/7.

IX. OTHER MATTERS

29. At its 134th meeting, on 22 July, the Group of 77 and China introduced a proposal to commemorate the thirtieth anniversary of the 1982 United Nations Convention on the Law of the Sea.

30. The proposal recalled the historic significance of the Convention and reaffirmed the importance of the codification and designation by the Convention of the seabed and ocean floor and subsoil beyond the limits of national jurisdiction as well as the resources of the Areas, as the common heritage of mankind. In addition to supporting the convening of a commemorative meeting of the United Nations General Assembly on Monday, 10 December 2012 to mark the thirtieth anniversary of the Convention, the proposal called for a special meeting during the eighteenth session of the Authority for the same purpose.

31. The Assembly adopted, with an amendment, the proposal contained in its decision contained in document ISBA/17/A/8, with the understanding that related costs remain within the budget of the Authority for 2012.

32. Also at its 134th meeting, Ghana, the Netherlands, Nigeria and South Africa introduced a proposal referring to the Advisory Opinion of 1 February 2011 delivered by the Seabed Disputes Chamber on the Responsibilities and Obligations of States sponsoring persons and entities with respect to activities in the Area.

33. After discussion and with amendments to the proposal, the Assembly adopted the decision contained in document ISBA/17/A/9.

X. DATES OF THE NEXT SESSION OF THE ASSEMBLY

34. The next session of the Assembly will be held from 16 to 27 July 2012. It will be the turn of the African Group to nominate a candidate for the presidency of the Assembly in 2012.

ISBA/17/C/6- Advisory opinion of the Seabed Disputes Chamber on the
ISBA/17/LTC/5 responsibilities and obligations of States sponsoring persons and
entities with respect to activities in the Area
Report of the Secretary-General

Date: 4 March 2011

1. The purpose of the present note is to inform members of the Council and members of the Legal and Technical Commission of the developments that have taken place since the decision of the Council at the sixteenth session to request an advisory opinion pursuant to article 191 of the 1982 United Nations Convention on the Law of the Sea from the Seabed Disputes Chamber of the International Tribunal on the Law of the Sea on matters relating to the responsibilities and obligations of sponsoring States. The decision of the Council is contained in document ISBA/16/C/13.
2. Members of the Council and of the Legal and Technical Commission will recall that at its 161st meeting on 6 May 2010, the Council requested the Chamber to render an advisory opinion on the following questions:
 - “1. What are the legal responsibilities and obligations of States Parties to the Convention with respect to the sponsorship of activities in the Area in accordance with the Convention, in particular Part XI, and the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982?
 2. What is the extent of liability of a State Party for any failure to comply with the provisions of the Convention, in particular Part XI, and the 1994 Agreement, by an entity whom it has sponsored under article 153, paragraph 2 (b), of the Convention?
 3. What are the necessary and appropriate measures that a sponsoring State must take in order to fulfil its responsibility under the Convention, in particular article 139 and annex III, and the 1994 Agreement?”
3. The Secretary-General of the Authority communicated the decision of the Council to the Registrar of the Tribunal by letter dated 11 May 2010. On 17 May 2010, the request was entered in the list of cases as No. 17 under the name “Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area”.
4. In accordance with article 133, paragraph 1, of the Rules of the Tribunal, the Registrar, by note verbale dated 17 May 2010, notified all States Parties to the Convention of the request for an advisory opinion. The Registrar also notified the Secretary-General of the United Nations of the request for an advisory opinion, by letter dated 18 May 2010, pursuant to article 4 of the Agreement on Cooperation and Relationship between the United Nations and the International Tribunal for the Law of the Sea of 18 December 1997.
5. By order 2010/3 dated 18 May 2010, pursuant to article 133, paragraph 2, of the Rules of the Tribunal, the President decided that the Authority and the organizations having observer status in the Assembly of the Authority were considered likely to be able to provide information on the questions contained in the request. Accordingly, the President invited the States Parties, the Authority and the aforementioned intergovernmental organizations to submit written statements on those questions and fixed 9 August 2010 as the time limit for their submission. By the same order, the President also fixed 14 September 2010 as the opening date of the oral proceedings.
6. Those time limits were fixed with a view to meeting the requirement in Article 191 of the Convention that advisory opinions are given as a matter of urgency.

7. By order 2010/4 dated 28 July 2010, the President, upon a request submitted to the Chamber, extended the time limit for the submission of written statements to 19 August 2010.

8. The dossier was submitted to the Chamber by letter dated 30 July 2010 on behalf of the Secretary-General of the Authority pursuant to order 2010/3 dated 18 May 2010 of the President of the Chamber and to article 131 of the Rules of the Tribunal. The dossier contains the relevant rules, regulations and procedures of the Authority, as well as other documents, decisions and material likely to throw light upon the three legal questions on which the advisory opinion of the Chamber was requested.

9. At the request of the Chamber, the Legal Counsel of the Authority submitted a note dated 26 August 2010 on the Likely impact of exploration and mining activities for nodules on the marine environment, a letter, dated 17 September 2010, in response to one of the questions communicated by the Chamber prior to the hearing in supplement to the responses already provided in the oral statement of the Authority on 14 September 2010, and a letter dated 15 November 2010 on the different phases involved in exploration and exploitation of polymetallic nodules and polymetallic sulphides in the Area.

10. Within the time limit fixed by the President of the Chamber, written statements were submitted by the following 12 States Parties, listed in order of their receipt: United Kingdom of Great Britain and Northern Ireland, Nauru, Republic of Korea, Romania, Netherlands, Russian Federation, Mexico, Germany, China, Australia, Chile and Philippines. Within the same time limit, the Authority, the Interoceanmetal Joint Organization and the International Union for Conservation of Nature and Natural resources also submitted written statements. In accordance with article 133, paragraph 3, of the Rules of the Tribunal, the Registrar transmitted copies thereof to the States Parties, the Authority and the organizations that had submitted written statements.

11. A written statement from the United Nations Environment Programme received by the Registry after the expiry of the time limit fixed by order 2010/4 dated 28 July 2010 was nevertheless included in the case file by decision of the President of the Chamber and was accordingly circulated to the States Parties, the Authority and the intergovernmental organizations that had submitted written statements. The statement was also posted on the Tribunal's website.

12. On 17 August 2010, the Registry received a statement submitted jointly by Stichting Greenpeace Council (Greenpeace International) and the World Wide Fund for Nature. It was not included in the case file, since it had not been submitted under article 133 of the Rules, but it was posted in a separate section of the Tribunal's website. It was also transmitted to the States Parties, the Authority and the international organizations that had submitted written statements.

13. On 10 September 2010, the Chamber decided not to accede to the petition from Stichting Greenpeace Council (Greenpeace International) and the World Wide Fund for Nature for permission to participate in the advisory proceedings as *amici curiae*.

14. Within the time limit fixed in the order dated 18 May 2010, the following nine States Parties expressed their intention to participate in the oral proceedings: Argentina, Chile, Fiji, Germany, Mexico, Nauru, Netherlands, Russian Federation and United Kingdom. Within the same time limit, the Authority, the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization and the International Union for Conservation of Nature and Natural Resources also expressed their intention to participate in the oral proceedings. All appeared at the four public sittings held on 14, 15 and 16 September 2010 in Hamburg, Germany. This was a "double première" as observed by the President of the Chamber at the opening of the oral hearings, since it marked the first time that the Chamber had been "seized with a case and the first time at all that a request to render an advisory opinion had been brought to the Tribunal".¹ It was also the first time that the hearing had been broadcast over the Internet (as a webcast).

15. On 1 February 2011, the Seabed Disputes Chamber unanimously adopted its advisory opinion, the reading of which took place in Hamburg, Germany. The text of the *dispositif* as contained in paragraph 242 of the

opinion is reproduced in the annex to the present note, in the original languages of the opinion (English and French), as well as in Arabic, Chinese and Russian. The full text of the opinion will be made available to members of the Council and to members of the Legal and Technical Commission. The request from the Council, the orders, the text of the advisory opinion, the dossier and additional information submitted by the Authority, the written and oral proceedings and press releases are available on the website of the Tribunal.

16. The Council is invited to discuss the content of the advisory opinion and to make such recommendations for further action as it deems necessary.

Annex
Text of the dispositif of the advisory opinion of the Seabed Disputes Chamber

[Original: English and French]

242. For these reasons,

The Chamber,

1. Unanimously,

Decides that it has jurisdiction to give the advisory opinion requested;

2. Unanimously,

Decides to respond to the request for an advisory opinion;

3. Unanimously,

Replies to Question 1 submitted by the Council as follows:

Sponsoring States have two kinds of obligations under the Convention and related instruments:

A. *The obligation to ensure compliance by sponsored contractors with the terms of the contract and the obligations set out in the Convention and related instruments.*

This is an obligation of “due diligence”. The sponsoring State is bound to make best possible efforts to secure compliance by the sponsored contractors.

The standard of “due diligence” may vary over time and depends on the level of risk and on the activities involved.

This “due diligence” obligation requires the sponsoring State to take measures within its legal system. These measures must consist of laws and regulations and administrative measures. The applicable standard is that the measures must be “reasonably appropriate”.

B. *Direct obligations with which sponsoring States must comply independently of their obligation to ensure a certain conduct on the part of the sponsored contractors.*

Compliance with these obligations may also be seen as a relevant factor in meeting the “due diligence” obligation of the sponsoring State.

¹. ITLOS/PV.2010/1/Rev.1, Verbatim record — Uncorrected, lines 24-27, p. 1.

The most important direct obligations of the sponsoring State are:

- (a) The obligation to assist the Authority set out in article 153, paragraph 4, of the Convention;
- (b) The obligation to apply a precautionary approach as reflected in principle 15 of the Rio Declaration and set out in the Nodules Regulations and the Sulphides Regulations; this obligation is also to be considered an integral part of the “due diligence” obligation of the sponsoring State and applicable beyond the scope of the two regulations;
- (c) The obligation to apply the “best environmental practices” set out in the Sulphides Regulations but equally applicable in the context of the Nodules Regulations;
- (d) The obligation to adopt measures to ensure the provision of guarantees in the event of an emergency order by the Authority for protection of the marine environment; and
- (e) The obligation to provide recourse for compensation.

The sponsoring State is under a “due diligence” obligation to ensure compliance by the sponsored contractor with its obligation to conduct an environmental impact assessment set out in section 1, paragraph 7, of the annex to the 1994 Agreement. The obligation to conduct an environmental impact assessment is also a general obligation under customary law and is set out as a direct obligation for all States in article 206 of the Convention and as an aspect of the sponsoring State’s obligation to assist the Authority under article 153, paragraph 4, of the Convention.

Obligations of both kinds apply equally to developed and developing States, unless specifically provided otherwise in the applicable provisions, such as principle 15 of the Rio Declaration, referred to in the Nodules Regulations and the Sulphides Regulations, according to which States shall apply the precautionary approach “according to their capabilities”.

The provisions of the Convention which take into consideration the special interests and needs of developing States should be effectively implemented with a view to enabling the developing States to participate in deep seabed mining on an equal footing with developed States.

4. Unanimously,

Replies to Question 2 submitted by the Council as follows:

The liability of the sponsoring State arises from its failure to fulfil its obligations under the Convention and related instruments. Failure of the sponsored contractor to comply with its obligations does not in itself give rise to liability on the part of the sponsoring State.

The conditions for the liability of the sponsoring State to arise are:

- (a) Failure to carry out its responsibilities under the Convention; and
- (b) Occurrence of damage.

The liability of the sponsoring State for failure to comply with its “due diligence” obligations requires that a causal link be established between such failure and damage. Such liability is triggered by a damage caused by a failure of the sponsored contractor to comply with its obligations.

The existence of a causal link between the sponsoring State’s failure and the damage is required and cannot be presumed.

The sponsoring State is absolved from liability if it has taken “all necessary and appropriate measures to secure effective compliance” by the sponsored contractor with its obligations. This exemption from liability does not apply to the failure of the sponsoring State to carry out its direct obligations.

The liability of the sponsoring State and that of the sponsored contractor exist in parallel and are not joint and several. The sponsoring State has no residual liability.

Multiple sponsors incur joint and several liability, unless otherwise provided in the Regulations of the Authority.

The liability of the sponsoring State shall be for the actual amount of the damage. Under the Nodules Regulations and the Sulphides Regulations, the contractor remains liable for damage even after the completion of the exploration phase. This is equally valid for the liability of the sponsoring State.

The rules on liability set out in the Convention and related instruments are without prejudice to the rules of international law. Where the sponsoring State has met its obligations, damage caused by the sponsored contractor does not give rise to the sponsoring State’s liability. If the sponsoring State has failed to fulfil its obligation but no damage has occurred, the consequences of such wrongful act are determined by customary international law.

The establishment of a trust fund to cover the damage not covered under the Convention could be considered.

5. Unanimously,

Replies to Question 3 submitted by the Council as follows:

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 scope and extent of these laws and regulations and administrative measures depends on the legal system of the sponsoring State.

Such laws and regulations and administrative measures may include the establishment of enforcement mechanisms for active supervision of the activities of the sponsored contractor and for coordination between the activities of the sponsoring State and those of the Authority.

Laws and regulations and administrative measures should be in force at all times that a contract with the Authority is in force. 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 necessary requirement for carrying out the obligation of “due diligence” of the sponsoring State and for seeking exemption from liability.

These national measures should also cover the obligations of the contractor after the completion of the exploration phase, as provided for in regulation 30 of the Nodules Regulations and regulation 32 of the Sulphides Regulations.

In the light of the requirement that measures by the sponsoring States must consist of laws and regulations and administrative measures, the sponsoring State cannot be considered as complying with its obligations only by entering into a contractual arrangement with the contractor.

The sponsoring State does not have absolute discretion with respect to the adoption of laws and regulations and the taking of administrative measures. It must act in good faith, taking the various options into account in a manner that is reasonable, relevant and conducive to the benefit of mankind as a whole.

As regards the protection of the marine environment, the laws and regulations and administrative measures of the sponsoring State cannot be less stringent than those adopted by the Authority, or less effective than international rules, regulations and procedures.

The provisions that the sponsoring State may find necessary to include in its national laws may concern, inter alia, financial viability and technical capacity of sponsored contractors, conditions for issuing a certificate of sponsorship and penalties for non-compliance by such contractors.

It is inherent in the “due diligence” obligation of the sponsoring State to ensure that the obligations of a sponsored contractor are made enforceable.

Specific indications as to the contents of the domestic measures to be taken by the sponsoring State are given in various provisions of the Convention and related instruments. This applies, in particular, to the provision in article 39 of the Statute prescribing that decisions of the Chamber shall be enforceable in the territories of the States Parties, in the same manner as judgements and orders of the highest court of the State Party in whose territory the enforcement is sought.

Done in English and French, both texts being authoritative, in the Free and Hanseatic City of Hamburg, this first day of February, two thousand and eleven, in three copies, one of which will be placed in the archives of the Tribunal and the others will be sent to the Secretary-General of the International Seabed Authority and to the Secretary-General of the United Nations.

(Signed) **Tullio Treves**
President

(Signed) **Philippe Gautier**
Registrar

ISBA/17/C/8 Draft regulations on prospecting and exploration for cobalt-rich ferromanganese crusts in the Area

Note by the Secretariat

Date: 3 March 2011

1. The purpose of the present document is to provide necessary background to the draft regulations on prospecting and exploration for cobalt-rich ferromanganese crusts in the Area (“the draft cobalt crusts regulations”) as contained in document ISBA/16/C/WP.2 which are currently before the Council for its consideration. The draft cobalt crusts regulations were adopted by the Legal and Technical Commission in 2009 for consideration by the Council during the sixteenth session of the Authority. Although the Council took up this matter during the sixteenth session, it did not have sufficient time to complete its work. Some general comments were exchanged concerning the issues that the Council would need to discuss in more detail in relation to the draft regulations, including that of the appropriate size and configuration of areas for exploration, and an informal proposal was submitted by the delegation of China.
2. The Council agreed to continue its work on the draft regulations at the seventeenth session, noting that the draft regulations proposed by the Commission would require further revision in order to bring them into

alignment with the text of the Regulations on prospecting and exploration for polymetallic sulphides in the Area (ISBA/16/A/12/Rev.1).

I. BACKGROUND AND PROGRESS TO DATE

3. Members of the Council will recall that, at the resumed fourth session in 1998,¹ the delegation of the Russian Federation formally requested the Authority to develop regulations on prospecting and exploration for polymetallic sulphides and cobalt-rich ferromanganese crusts. In 1999, the Secretariat prepared a preliminary review of the status of knowledge and research regarding these resources. To assist in advancing the drafting process, it convened a workshop in June 2000 on the characteristics of and prospects for resources other than polymetallic nodules in the Area. The Secretariat summarized the outcomes of that workshop in document ISBA/7/C/2, which also contained model clauses for the issues to be addressed in the development of a regime for prospecting and exploration of sulphides and crusts. Following extensive discussions, the Council decided to further consider the possible elements of the future regime for prospecting and exploration, for both polymetallic sulphides and cobalt-rich ferromanganese crusts, at the eighth session in 2002. While keeping the matter on its agenda, the Council requested the Secretariat to provide more background information, and requested the Legal and Technical Commission to begin its consideration of the issues associated with the elaboration of the draft regulations on prospecting and exploration.

4. During the eighth session in 2002, the Secretariat invited experts at a one-day seminar to make presentations on the status and environmental context of, and prospects for, polymetallic sulphides and cobalt crusts. With assistance from the Secretariat and external experts, the Legal and Technical Commission undertook a preliminary consideration of the approaches set out in the Secretariat's document (ISBA/7/C/2). In its initial conclusions, the Commission insisted on the need to proceed cautiously and logically in developing the regulations. Moreover, in the light of the uncertainties relating to prospecting and exploration for the resources concerned, any regulatory system for prospecting and exploration should be reviewable after an initial period. While creating incentives for potential prospectors by means of rights over certain areas and priority of application for exploration contracts, it was also essential that the Authority should obtain relevant data and information, in particular in respect of the protection and preservation of the marine environment. The Commission requested the Secretariat to gather additional information for its resumed consideration of three elements in 2003: the adoption of a progressive fee system instead of a relinquishment system; an appropriate grid system for allocation of a commercially viable exploration area that avoids monopoly situations; and a participatory system for the Authority. Benefiting from the presentations made at the seminar and from the parallel considerations of the Commission, the Council further discussed the issues involved in the draft regulations, encouraging a flexible approach consistent with the United Nations Convention on the Law of the Sea and the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, which can compete with similar regulatory frameworks in place under municipal legislations. The Council decided to keep the matter under consideration at its following session.

5. During the ninth session in 2003, the Commission had before it an extensive set of draft regulations based on the existing regulations on prospecting and exploration for polymetallic nodules and including the model clauses set out in document ISBA/7/C/2, along with elements that had emerged from discussions in the Council and in the Commission during 2002. The Commission held a two-week meeting in 2003. During the first week, it convened informal working groups to conduct a detailed consideration of the three main issues identified in 2002. The Commission took the view that the basic procedures for the submission and approval of applications, and most of the standard clauses, should be the same as those for nodules, with necessary adjustments to reflect the differences in the nature, distribution and political and economic context of sulphides compared to crusts. The

¹ For a detailed chronology, with references to relevant documents, see the annex to the present document.

adjustments would relate to prospecting, the size of the allocation area for exploration, the application of the site-banking system and the procedure for settlement of overlapping claims. Proposals were made in the light of developments in international environmental law since 1982 and the limited scientific knowledge available. At the end of its session, the Commission requested the Secretariat to prepare a consolidated set of draft regulations reflecting the discussions and proposals of the working groups, to assist the continued consideration of the matter in 2004. The Commission further requested the Secretariat to provide an informative paper to facilitate a more focused review of the outstanding issues. The Council took note of the progress made by the Commission, recalling the need to proceed in a technically sound and timely manner, and decided to keep the matter under consideration at the following session, in parallel with the ongoing development of draft regulations by the Commission.

6. During the tenth session in 2004, to facilitate final deliberations by the Commission, the Secretariat prepared a complete set of draft regulations, based on the nodules regulations, the model clauses and elements of discussion that had emerged from the Commission in 2002 and in 2003. During the first week of the session, the deliberations of the Commission also benefited from input by three experts, in particular on matters relating to the size of the exploration area and the environmental context of sulphides and crusts. After intensive discussions, the Commission expressed the view that the size of the exploration area for both resources should be 10,000 square kilometres, and that a high percentage of relinquishment would be appropriate in the light of the probably large areas of poor resources. The Commission completed its review of the draft regulations, underlining that future regulations should follow the framework of the existing nodules regulations and conform with the Convention and the Implementation Agreement. The Commission submitted its recommendations to the Council for consideration at the tenth session. Lack of time prevented a detailed reading by the Council.

7. During the eleventh session in 2005, the Council completed a first reading of the draft regulations recommended by the Commission (ISBA/10/C/WP.1), with the assistance of explanatory notes or the rationale behind some of the key elements, which had been prepared by the Secretariat. The notes focused on six areas of uncertainty that had emerged from the deliberations of the Council in 2004, namely, (a) the establishment of a single set of regulations for both resources, instead of a set for each type; (b) the definition of a block size as 10 by 10 kilometres; (c) the decision that up to 100 blocks may be allocated to an exploration programme; (d) the requirement for contiguity of blocks before relinquishment; (e) the rate and apportionment of blocks during relinquishment; and (f) greater emphasis on the protection and preservation of the environment at the prospecting and exploration phases. The Council requested the Secretary-General, in consultation, as necessary, with the Legal and Technical Commission, to provide further explanation and analysis relating to the key elements around which the deliberations revolved. The Council further commented on the need for an appropriate provision, consistent with the Convention and the Agreement, on resolving overlapping claims submitted by different applicants. The Council also pointed out that the draft regulations did not fully reflect the anti-monopoly provisions contained in annex III to the Convention. Subsequently, the Council agreed to resume its consideration of the draft regulations in 2006 and requested the Secretariat to prepare a revised set of draft regulations reflecting the progress made during the session. To further assist its review, the Council also requested the Secretariat to provide technical papers and clarifications on the key elements of the draft regulations that required further consideration.

8. At the twelfth session in 2006, the Council resumed its consideration of the draft regulations as contained in document ISBA/10/C/WP.1/Rev.1, having before it a set of technical information papers (ISBA/12/C/2, Parts I-III, and ISBA/12/C/3, Parts I and II) prepared by the Secretariat and introduced with the assistance of two technical experts, James Hein and Charles Morgan. In addition, the Council was provided with the preliminary outcomes of a workshop on the technical and economic considerations relating to the mining of polymetallic sulphides and cobalt-rich crusts convened by the Secretariat immediately before the twelfth session. At the request of the Council, the Secretariat prepared a summary of the possible adjustments to the draft regulations recommended at the workshop (ISBA/12/C/7). The delegation of the Russian Federation also submitted a proposal relating to the draft regulations (ISBA/12/C/6). Following an exchange of views on the way to address the outstanding technical issues associated with the draft regulations, the Council decided to separate the draft regulations into two sets, one for each resource, and requested the Secretariat to prepare two sets of draft regulations, to be revised in the light of the outcomes of the workshop and of the presentations, proposals and discussions conducted during the

twelfth session. The Council also requested the Commission to review the draft sulphides regulations as a matter of priority, to enable their further consideration by the Council in 2007, and requested the incoming Commission to review the draft crusts regulations and submit its recommendations to the Council in 2008.

9. Given the decision of the Council in 2006 to draft separate sets of regulations on polymetallic sulphides and cobalt crusts, the legislative history of the two sets has evolved in parallel since the thirteenth session in 2007. In accordance with the Council's request, the Secretariat revised the cobalt crusts draft regulations (ISBA/13/LTC/WP.1) for review by the Legal and Technical Commission. The revised draft was based on document ISBA/10/C/WP.1/Rev.1 and incorporated technical adjustments in line with the recommendations of the workshop on technical and economic considerations relating to mining polymetallic sulphides and cobalt-rich crusts in the Area held from 31 July to 4 August 2006. The Secretariat also prepared a note summarizing the progress made in respect of the draft regulations (ISBA/13/LTC/1). In its review, the Commission decided to focus its consideration on two sensitive questions: the size of the allocated area for exploration, and the progressive fee system. While there was agreement concerning the use of a block system, the main divergence of views concerned the configuration of the blocks and the size of the overall area to be allocated for exploration and, ultimately, exploitation. The Commission found the background information insufficient to make a recommendation to the Council on the design of a system for site allocation for exploration. The Commission decided to pursue its work during the fourteenth session.

10. During the fourteenth session in 2008, the Legal and Technical Commission resumed its consideration of the draft crusts regulations. The Commission decided that, in the light of the available knowledge and given the need to complete its review in a timely manner, it was appropriate to finalize a recommendation to the Council at that session. The Commission proposed a number of revisions to document ISBA/13/LTC/WP.1. In particular, it recommended that the basic unit for defining the exploration area for cobalt crusts should be a 20-square kilometre block. The maximum exploration area would consist of up to 100 such blocks that could be arranged in non-contiguous clusters within a geographical area of 550 kilometres by 550 kilometres. The Commission recommended a progressive fee system that should be reviewed by the Council every five years. It also endorsed the idea of including a clause on the automatic review of the regulations every five years or whenever necessitated by the development of scientific knowledge. The Commission also considered it important to include an anti-monopoly provision in both the crusts and draft sulphides regulations. The purpose was to prevent multiple applications by affiliated applicants in excess of the overall size limitations (2,000 square kilometres in the case of crusts and 10,000 square kilometres in the case of sulphides). The Commission requested the Secretariat to prepare a revised text (ISBA/14/LTC/CRP.6)² incorporating the Commission's recommendations and aligning the text of the draft crusts regulations with the adjustments to the draft sulphides regulations agreed by the Council in 2007 (ISBA/13/C/CRP.1). The Commission further requested the Secretariat to align document ISBA/14/LTC/CRP.6 with any adjustments to the draft sulphides regulations made by the Council later in 2008. The Commission indicated its intent to review that document (ISBA/15/LTC/CRP.1), with a view to formally adopting it for submission to the Council at the fifteenth session.

11. During the fifteenth session in 2009, the Commission adopted the revised text of the draft crusts regulations contained in document ISBA/15/LTC/CRP.1 as its recommendation to the Council for consideration at the sixteenth session.

II. COMMENTARY AND ACTION BY THE COUNCIL

12. The Council is invited to take note of the background to the development of the draft regulations on prospecting and exploration for cobalt crusts, as described above. Essentially, it should be noted that there has been a constant exchange of views and interaction between the Council and the Commission throughout the

². Documents issued as conference room papers under the CRP symbol are circulated in their original language only and are not translated.

drafting process. It should be noted that the Commission was mindful of the need to ensure that, as far as possible, the draft crusts regulations are fully aligned with the regulations on polymetallic sulphides. As a result, most of the draft crusts regulations as proposed by the Commission were identical to the draft regulations on polymetallic sulphides under consideration by the Council at that time. As noted by the Council in 2010, some further alignment of the crusts regulations is required, to take account of the revisions to the sulphides regulations agreed by the Council in 2009 and 2010.

13. As requested by the Council, the Secretariat has prepared an informal version of the draft cobalt crusts regulations showing where further consequential revisions would be needed in order to bring the regulations into alignment with the regulations on polymetallic sulphides adopted by the Council and approved by the Assembly in 2010. This is available as document ISBA/17/C/CRP.1.

14. The main substantive areas of difference between the regulations on polymetallic sulphides and the draft regulations on cobalt crusts relate to: (a) the question of the size and configuration of the area to be allocated for exploration (regulation 12); and (b) the progressive fee system (regulation 21). In relation to the former matter, the delegation of China submitted an informal proposal during the sixteenth session for further revisions to draft regulations 12 and 27. That proposal, which was not discussed during the sixteenth session owing to lack of time, will be made available in all official languages prior to the session.

15. The Council is invited to review the draft crusts regulations during the seventeenth session, with a view to their adoption following the adoption of the draft regulations on polymetallic sulphides.

Annex

Chronology of the development of the draft regulations on prospecting and exploration for polymetallic sulphides and cobalt-rich ferromanganese crusts in the Area

<i>Year</i>	<i>Event</i>	<i>Reference</i>
1998	The Russian Federation requests the Authority to develop regulations on prospecting and exploration for polymetallic sulphides and cobalt-rich ferromanganese crusts.	ISBA/4/A/18
2000	The Authority convenes an international scientific workshop on the status and prospects for seabed minerals other than polymetallic nodules.	Kingston 26-30 June 2000
2001	Following the adoption in 2000 of the regulations on prospecting and exploration for polymetallic nodules, the Secretariat presents a report to the Council on considerations relating to the regulation of prospecting and exploration for polymetallic sulphides and cobalt-rich ferromanganese crusts, including a summary of the outcomes of the 2000 workshop and draft model clauses.	ISBA/7/C/2
	The Council decides to continue its consideration of the issues at the next session and requests the Secretariat to provide additional background information. It also decides that the Legal and Technical Commission should commence consideration of the regulations.	ISBA/7/C/7
2002	A one-day technical seminar is held during the eighth session of the Council to provide members of the Council with additional information about polymetallic sulphides and cobalt-rich ferromanganese crusts and the marine	ISBA/8/A/1 and Corr.1 ISBA/8/C/7

<i>Year</i>	<i>Event</i>	<i>Reference</i>
	environment in which they occur.	
	The Legal and Technical Commission begins consideration of the issues associated with the proposed regulations.	ISBA/8/C/6
2003	The Legal and Technical Commission meets for two weeks. During the first week, it breaks into informal working groups for detailed consideration of specific technical issues. The Secretariat is asked to prepare a consolidated draft of the regulations, taking into account the discussions from 2002 and 2003.	ISBA/9/LTC/5 and ISBA/9/C/4
2004	The Legal and Technical Commission completes its work on the draft regulations covering both resources and submits the outcome of its work to the Council. The Council has insufficient time for a detailed review of the draft.	ISBA/10/LTC/WP.1 ISBA/10/C/WP.1 ISBA/10/C/10
2005	The Council undertakes a first reading of the draft prepared by the Legal and Technical Commission. It identifies substantive issues for further consideration and requests the Secretariat to prepare a revised text incorporating minor revisions arising from the first reading.	ISBA/10/C/WP.1/Rev.1 ISBA/11/C/5 (explanatory notes)
2006	(March) The Authority convenes an international scientific workshop on cobalt-rich crusts and the diversity and distribution patterns of seamount fauna.	Kingston 26-31 March 2006
	(July) Immediately prior to the twelfth session, the Authority convenes an international workshop on technical and economic considerations relating to mining of polymetallic sulphides and cobalt-rich ferromanganese crusts. A summary of the workshop recommendations is presented to the Council.	ISBA/12/C/7
	(August) During the twelfth session, the Secretariat presents a paper to the Commission on the outcomes of the workshop held in March 2006 on cobalt-rich crusts and the diversity and distribution patterns of seamount fauna.	ISBA/12/LTC/CRP.2
	The Council resumes consideration of the draft regulations, which still covers both resources. The Secretariat provides additional clarification on critical issues, as requested by the Council, and provides a technical briefing, with the assistance of experts.	ISBA/12/C/2, Parts I-III ISBA/12/C/3, Parts I and II ISBA/10/C/WP.1/Rev.1
	The Russian Federation submits a draft proposal relating to the draft regulations.	ISBA/12/C/6
	By the end of the twelfth session, the Council decides to request the Secretariat to further revise the draft regulations in the light of the outcomes of the technical workshop and of the presentations, proposals and discussions of the Council. The Council decides further that separate sets of regulations will be prepared for polymetallic sulphides and cobalt-rich ferromanganese crusts, and that the draft regulations on polymetallic sulphides should be circulated to the members of the Legal and Technical Commission before the end of 2006,	ISBA/12/C/12

<i>Year</i>	<i>Event</i>	<i>Reference</i>
	so that the Council can be in a position to give them substantive consideration in 2007.	
2007	(May) The Secretariat prepares a revised text of the draft crusts regulations, together with an explanatory note. The revised draft is based on document ISBA/10/C/WP.1/Rev.1, with technical adjustments in line with the recommendations made by the workshop on technical and economic considerations relating to both resources. The main substantive changes relate to a new formula for determining the size of the exploration area, the relinquishment schedule and the participation by the Authority.	ISBA/13/LTC/WP.1 ISBA/13/LTC/1
	(July) The Legal and Technical Commission begins consideration of the draft regulations on cobalt-rich ferromanganese crusts prepared by the Secretariat. The Commission focuses its consideration on two sensitive issues, the size of the area to be allocated for exploration and the progressive fee system, but considers that the background information available to date is not sufficient to provide a recommendation to the Council on any given system for site allocation for prospecting and exploration.	ISBA/13/C/3
2008	The Secretariat prepares a review of outstanding issues relating to the draft sulphides regulations and containing suggested language. This also serves for the draft crusts regulations under review by the Commission.	ISBA/14/C/4
	The Legal and Technical Commission resumes its consideration of the draft crusts regulations. At the end of the session, the Commission requests the Secretariat to prepare a revised text incorporating the revisions proposed during the meetings of the Commission and aligned with the informal text of the draft sulphides regulations as agreed by the Council during the thirteenth session (ISBA/13/C/CRP.1).	ISBA/14/C/8 ISBA/14/LTC/CRP.6
2009	(January) The Secretariat prepares an updated version of ISBA/14/LTC/CRP.6 issued at the end of the fourteenth session. The updated version incorporates all the revisions proposed by the Legal and Technical Commission during the fourteenth session (2008) and is aligned with the revised text of the draft sulphides regulations contained in document ISBA/15/C/WP.1 and Corr.1. The Secretariat also updates background information on the status of the draft crusts regulations.	ISBA/15/LTC/CRP.1 ISBA/15/LTC/3 ISBA/15/C/WP.1/Rev.1
	The Council resumes its consideration of the draft sulphides regulations. At the end of the session, the Council requests the Secretariat to prepare a revised text based on the discussions and proposals in the Council during the thirteenth, fourteenth and fifteenth sessions.	ISBA/15/C/5 ISBA/15/LTC/CRP.1
	The Commission adopts its recommendations on the draft crusts regulations and decides to submit them to the Council.	
2010	The revised draft crusts regulations as recommended by the Commission are translated and proposed to the	ISBA/16/C/WP.2

<i>Year</i>	<i>Event</i>	<i>Reference</i>
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Council for consideration. There is insufficient time during the session for the Council to complete its work. The Regulations on prospecting and exploration for polymetallic sulphides in the Area are adopted by the Council and approved by the Assembly (ISBA/16/A/12/Rev.1).

ISBA/17/C/9 **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 Nauru Ocean Resources Inc.**
Submitted by the Legal and Technical Commission

Date: 11 July 2011

I. INTRODUCTION

1. On 10 April 2008, the Secretary-General of the International Seabed Authority (the Authority) received an application for the approval of a plan of work for exploration for polymetallic nodules in the Area. On 31 March 2008, the application was submitted pursuant to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (the Regulations) by Nauru Ocean Resources Inc. (NORI). The application covers a total surface area of 74,830 km² 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 (the Convention). The reserved areas within the application were contributed by the Federal Institute for Geosciences and Natural Resources (BGR) of Germany, Yuzhmorgeologiya and Interoceanmetal Joint Organization (IOM).

2. In accordance with regulation 20, paragraph 1 (c) of the Regulations, on 28 April 2008, 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 as an item on the agenda of the Legal and Technical Commission at its meeting held from 19 to 28 May 2008.

3. The Commission was informed that the applicant had formally notified the Secretary-General of its intention to make an application for approval of a plan of work for exploration in a reserved area on 31 March 2008. Thereafter, in accordance with regulation 17(1) of the Regulations, the Secretary-General on 11 April 2008 forwarded such notification to the Enterprise (represented by its Interim Director-General), whereupon the Interim Director-General informed the Secretary-General in writing that the Enterprise had no current intention of carrying out activities in the areas under application.

4. The Commission recalled in this regard that the Enterprise had not yet begun to function independently of the secretariat of the Authority and that, by reason of article 170 of the Convention and section 2, paragraph 2, of the annex to 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), the Council would only take up the issue of the functioning of the Enterprise independently of the secretariat of the Authority either: (a) upon the approval of a plan of work for exploitation by an entity other than the Enterprise; or (b) upon receipt by the Council of an application for a joint venture operation with the Enterprise. Until such time as either of these eventualities takes place the secretariat of the Authority shall perform the functions of the Enterprise, which shall be as set out in section 2, paragraph 1 of the annex to the Agreement.

5. The Commission met to consider the application on 21, 22, 26 and 27 May 2008. Since the Commission had not reached consensus with respect to a recommendation to the Council in relation to the application, it decided to continue its consideration of the application at the next possible opportunity. The matter was placed on the agenda of the Commission for the fifteenth session. At that session, the Commission was informed that, by a letter dated 5 May 2009 addressed to the Legal Counsel of the Authority, the applicant had requested that consideration of its application be postponed in the light of global economic circumstances and other concerns. The Commission took due note of the request and decided to defer further consideration of the item until further notice.

6. In a letter dated 4 May 2010 addressed to the Secretary-General of the Authority, the applicant requested that its application be reconsidered by the Commission at the earliest opportunity. On 29 April 2011, NORI submitted to the Secretary-General updated information in relation to the pending application before the Commission that reflected changes in relation to ownership, corporate governance and raised capital. The applicant indicated that this update superseded the material contained in the application submitted in 2008.

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

7. 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(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(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.”

8. 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.

B. Consideration of the application at the seventeenth session

9. The Commission considered the application in closed meetings on 4, 5 and 6 July 2011. It noted that the updated information submitted by the applicant superseded the initial information contained in the application that had been submitted in 2008.

10. Prior to commencing a detailed examination of the application, the Commission invited the designated representative of the applicant, Peter Jacob, accompanied by Charles Morgan and David Heydon, 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.

11. The detailed examination by the Commission of the legal and financial, technical and environmental aspects of the application was conducted in smaller groups.

III. SUMMARY OF BASIC INFORMATION REGARDING THE APPLICATION

A. Identification of the applicant

12. Name of applicant: Nauru Ocean Resources Inc.

13. Address of applicant:

- (a) Street address: 1st Level, Civic Centre, Aiwo District, Republic of Nauru
- (b) Postal address: P.O. Box 300, Aiwo District, Republic of Nauru
- (c) Telephone number: +674 557 3133
- (d) Facsimile number: +674 444 3730
- (e) Electronic mail address: nauruoffice@nauruoceanresources.com

14. Designated representative of the applicant:

- (a) Name: Peter Jacob, First Secretary, Nauru High Commission
- (b) Street address: Nauru High Commission, Ratu Sakuna House, 7th Floor, McArthur Street, Suva, Fiji Islands
- (c) Telephone number: +679 331 3566
- (d) Facsimile number: +679 331 8311
- (c) Electronic mail address: firstsec@nauru.com.fj
- (d) Applicant's place of registration and principal place of business: the Republic of Nauru

15. The applicant indicated that NORI is a registered national of the Republic of Nauru that is incorporated within the jurisdiction and under the effective control of the Republic of Nauru. Two foundations, the Nauru Education and Training Foundation and the Nauru Health and Environment Foundation, now owned NORI in equal shares. In the event of non-compliance with Nauruan laws, the sponsoring State in the exercise of its control is empowered to deregister NORI. NORI is corporately under the control of Nauruan nationals with the majority of the Board of Directors being Nauruan. The Board of Directors comprises: Dominic Tabuna, Minister of Commerce, Industry and Environment, Republic of Nauru; Kieren Keke, Minister of Foreign Affairs, Republic of Nauru; and David Heydon.

16. Further, all the stakeholders of NORI are Nauruan and domiciled in Nauru. The Nauru Education and Training Foundation and the Nauru Health and Environment Foundation are controlled by Nauru and will distribute within the State the income NORI receives from mineral production in the Licence Area. The Nauru Education and Training Foundation will distribute its share of the income to promote education and capacity-building in Nauru, while the Nauru Health and Environment Foundation will utilize the income for health services and environmental rehabilitation in Nauru.

17. In 2008, NORI was a subsidiary of Nautilus Minerals Inc. Since then, Nautilus Minerals Inc. has relinquished its ownership and interest in NORI. NORI is therefore no longer affiliated with Nautilus Minerals Inc., or with any other entity or person outside the jurisdiction of the sponsoring State.

B. Sponsorship

18. Sponsoring State: the Republic of Nauru.

19. The date of deposit of Nauru's instrument of ratification of, or accession or succession to, the Convention and the date 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 are 10 December 1982 and 23 January 1996, respectively.

20. The date of certificate of sponsorship is 11 April 2011, signed by Dominic J. Tabuna, M.P., Minister for Commerce, Industry and Environment, Republic of Nauru.

21. A copy of the certificate of incorporation of Nauru Ocean Resources Inc. has been submitted, as well as the applicant's certificate of sponsorship issued by the Republic of Nauru. The certificate of sponsorship states that the applicant is sponsored by and under the effective control of the Republic of Nauru and declares that the Republic of Nauru assumes responsibility in accordance with article 139, article 153, paragraph 4, and annex III, article 4, paragraph 4, of the Convention. Further, in a letter to the Secretary-General of the Authority dated 11 April 2011, the sponsoring State also reaffirmed its commitment to fulfilling its responsibilities under the Convention and taking all necessary and appropriate measures to secure the effective compliance of NORI with the Convention and related instruments.

22. In the application the Government of Nauru refers to the advisory opinion delivered on 1 February 2011 by the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea (the Tribunal) and states that it has commenced the process of implementing a comprehensive legal framework to regulate the activities of NORI in the Area. A collaborative work has commenced with the Applied Geoscience and Technology Division of the secretariat of the Pacific Community on its deep-sea minerals project funded by the European Union. This project is aimed at strengthening the system of governance and capacity of countries in the management of deep-sea minerals through the development and implementation of sound and regionally integrated legal frameworks, including legislative and regulatory frameworks for offshore minerals exploration and mining, as well as improved human and technical capacity and effective management and monitoring of offshore exploration and mining operations.

23. Nauru has made a clear commitment to the Authority that it intends to implement this legislation. It will legislate to create a programme for the licensing of activities in the Area and detail the conditions Nauruan contractors must satisfy prior to the State granting approval to any at-sea mineral exploration or exploitation, including financial and technical capacity requirements. Licences will be issued subject to the terms, conditions and restrictions necessary to ensure that the State fulfils its sponsorship responsibilities and that the Nauruan contractor has fulfilled its obligations, as set out in the Convention. The applicant states that the regulatory framework will be implemented when NORI obtains an exploration contract from the Authority and recalls that this approach is in line with the advisory opinion issued by the Tribunal, which determines that legislation is not a prerequisite for obtaining an exploration contract.

24. The applicant has stated that regulations will be adopted to address specific issues relating to seabed mining and exploration, including the protection of the marine environment, conservation of natural resources, and preservation of human health and safety, and property at sea. The State will monitor seabed mining activities to enforce the legislation, the regulations issued pursuant thereto and the terms, conditions and restrictions imposed on any licensee. Enforcement powers for non-compliance by licensees, in addition to civil and criminal penalties, will include suspension and revocation of a licence or a permit, or suspension or modification of particular activities authorized by a licence or permit.

C. Area of application

25. The application area of NORI covers a total area of 74,830 km² in the Clarion-Clipperton Zone of the Pacific Ocean. The area lies within the reserved areas and is divided into four regions: Area A is located within Block 13 and covers an area of 8,924 km²; Area B is located within Block 15 and covers an area of 3,519 km²; Area C is located within Block 22 and covers an area of 37,227 km²; and Area D is located within Block 25 and covers an area of 25,160 km². The coordinates and general location of the areas under application are shown in the annex to the present document.

D. Other information

26. Date of receipt of application: 10 April 2008.

27. Previous contracts with the Authority: the applicant has not been previously awarded any contract with the Authority.

28. Undertakings: the applicant submitted a written undertaking dated 21 April 2011 and signed by the Director of NORI, Dominic J. Tabuna, stating that it will comply with regulation 14 of the Regulations.

IV. EXAMINATION OF INFORMATION AND TECHNICAL DATA SUBMITTED BY THE APPLICANT

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

- (a) Information relating to the application area:
 - (i) Boundaries of the area under application according to the World Geodetic System 1984 (WGS 84);
 - (ii) A summary of the station data pertaining to the area under application and a full list of station data (application, appendix 2);
 - (iii) A chart and a list of the coordinates of the area under application;
- (b) Certificate of sponsorship issued by the sponsoring State;
- (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 programmes.

30. During his presentation, the representative of the applicant provided clarification, as required by the Commission, on the information and technical data supplied.

V. CONSIDERATION OF FINANCIAL AND TECHNICAL QUALIFICATIONS OF THE APPLICANT

A. Financial capacity

31. In evaluating the financial capacity of the applicant, the Commission noted that NORI was incorporated in the Republic of Nauru on 12 March 2008, and that its current certificate of registration expires on 12 March 2012 and is renewable on an annual basis in accordance with relevant Nauru company law. The Commission was

provided with a certified pro forma balance sheet (application, supplementary material 3), in accordance with regulation 12(5) of the Regulations since the applicant is a newly organized entity and since activities cannot start before a contract is issued. The applicant declares that it has the necessary financial resources to meet the estimated costs of the proposed plan of work for exploration. The Commission also noted that the activities will be financed by a guaranteed minimum budget of \$10 million, which the applicant has proposed to finance through borrowing. The Commission was provided with the amount of borrowings, the repayment period and the interest rate, in conformity with regulation 12(6) of the Regulations. The applicant indicated that the minimum expenditure commitment will likely be substantially increased as the implementation of the programme of activities is accelerated, subject to exploration results and to developments in the preparation of regulations on exploitation for nodules by the Authority.

B. Technical capacity

32. The Commission was provided with technical information in relation to previous experience and skills in the field of dredging, excavation techniques and deep-sea mining technology that the applicant has submitted to demonstrate its technical capability to carry out the programme of work. The Commission noted that the applicant benefits in its technical team from the experience of leaders of four international consortiums (Ocean Management Incorporation, Kennecott Exploration Consortium, Ocean Minerals Company and Ocean Mining Associates) which developed and successfully carried out trial deep-sea mining systems to collect nodules in the Clarion-Clipperton Zone in the 1970s.

33. The Commission was provided with information relating to the prevention, reduction and control of hazards to and possible impacts on the marine environment. This included the completion of risk assessments and mitigation of any environmental harm. A detailed plan of action in relation to the preservation of the marine environment was presented for the first five years, including a long-term environmental monitoring programme of the area. The applicant stated that, in accordance with the Regulations, the best available technology and practices will be used to carry out exploration and to avoid harm to and impacts on the marine environment; likewise, every effort will be made to apply best environmental protection practices and a precautionary approach. Appropriate licences and insurances are in place to respond to incidents.

VI. CONSIDERATION OF DATA AND INFORMATION SUBMITTED FOR APPROVAL OF THE PLAN OF WORK FOR EXPLORATION FOR POLYMETALLIC NODULES

34. 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 will be carried out in accordance with the Regulations and environmental rules, regulations and procedures established by the Authority. These baseline studies will 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, 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 (financial obligations to the Authority);

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

35. The Commission was satisfied that the information presented met the requirements of the Regulations and noted that it looked forward to the submission of reports and data by the applicant, as required by the Regulations, and the recommendations of the Commission for the guidance of contractors.

VII. TRAINING PROGRAMME

36. In accordance with regulation 27 and section 8 of annex 4 to the Regulations, the applicant provided a detailed description of an at-sea exploration training programme, a fellowship programme, and an engineering training programme. These training programmes would be open to at least eight nationals of developing States who wish to specialize in engineering, marine biology, oceanography, geophysics and geology. The proposed programmes, which will be drawn up by the contractor in cooperation with the Authority and the sponsoring State and submitted for approval to the Authority before their insertion as schedule 3 to the contract, are scheduled for the first five-year period of the contract for exploration.

VIII. CONCLUSION AND RECOMMENDATIONS

37. 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.

38. The Commission is satisfied that none of the conditions in regulation 21(6) of the Regulations apply.

39. 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.

40. Accordingly, pursuant to regulation 21(5) of the Regulations, the Commission recommends to the Council approval of the plan of work for exploration submitted by Nauru Ocean Resources Inc.

Annex

List of coordinates and map of general location of the reserved areas under application

The area under application comprises the following four regions 1A to 1D:

Area A (8,924 km²)

All that area of seafloor within reserved Block 13 in the Clarion-Clipperton Zone of the Pacific Ocean bounded by a line commencing at the north-west corner at:

	<i>Latitude</i>	<i>Longitude</i>
	13.0000 N	-134.583 W (the point of commencement)
then to	13.0000 N	-134.250 W
then to	12.5000 N	-134.250 W
then to	12.5000 N	-134.067 W
then to	12.1933 N	-134.067 W
then to	12.1933 N	-133.833 W
then to	11.5000 N	-133.833 W
then to	11.5000 N	-134.377 W
then to	12.0000 N	-134.377 W
then to	12.0000 N	-134.583 W
then to	13.0000 N	-134.583 W (being the point of commencement)

Area B (3,519 km²)

All that area of seafloor within reserved Block 15 in the Clarion-Clipperton Zone of the Pacific Ocean bounded by a line commencing at the north-west corner at:

	<i>Latitude</i>	<i>Longitude</i>
	14.00000 N	-134.00000 W (the point of commencement)
then to	14.00000 N	-133.25000 W
then to	13.86670 N	-133.25000 W
then to	13.86670 N	-133.20000 W
then to	13.58010 N	-133.20000 W
then to	13.58010 N	-133.83300 W
then to	14.00000 N	-134.00000 W (being the point of commencement)

Area C (37,227 km²)

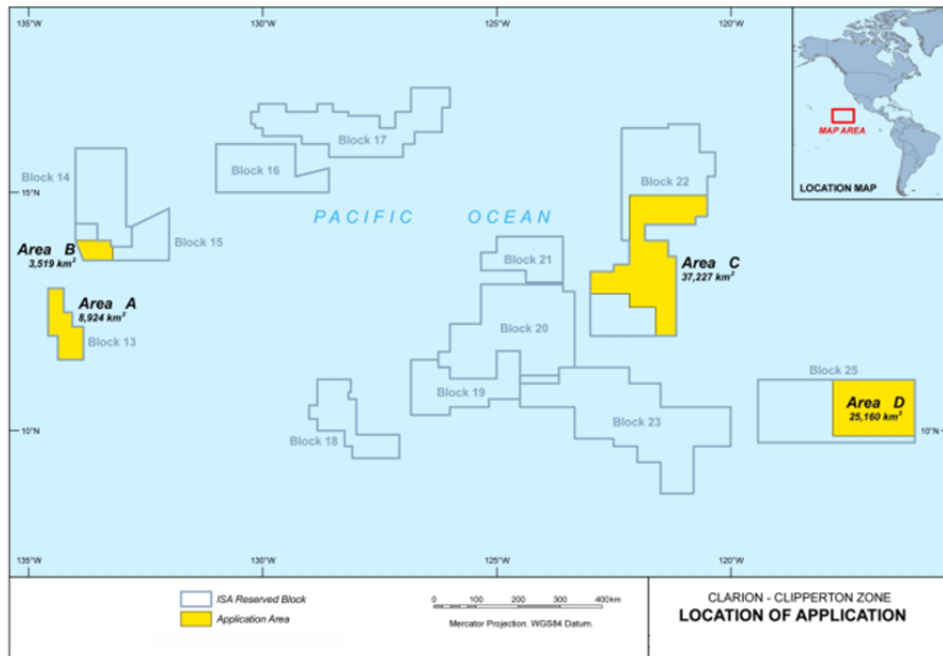
All that area of seafloor within reserved Block 22 in the Clarion-Clipperton Zone of the Pacific Ocean bounded by a line commencing at the north-west corner at:

	<i>Latitude</i>	<i>Longitude</i>
	14.9350 N	-122.1667 W (the point of commencement)
then to	14.9350 N	-120.5000 W
then to	14.5000 N	-120.5000 W
then to	14.5000 N	-120.7500 W
then to	14.3333 N	-120.7500 W
then to	14.3333 N	-121.8330 W
then to	14.0000 N	-121.8330 W
then to	14.0000 N	-121.3330 W
then to	13.6667 N	-121.3330 W
then to	13.6667 N	-121.1670 W
then to	12.0000 N	-121.1670 W
then to	12.0000 N	-121.6000 W
then to	12.6000 N	-121.6000 W
then to	12.6000 N	-122.1670 W
then to	12.8900 N	-122.1670 W
then to	12.8900 N	-123.0000 W
then to	13.3500 N	-123.0000 W
then to	13.3500 N	-122.5000 W
then to	13.5000 N	-122.5000 W
then to	13.5000 N	-122.1667 W
then to	14.9350 N	-122.1667 W (being the point of commencement)

Area D (25,160 km²)

All that area of seafloor within reserved Block 25 in the Clarion-Clipperton Zone of the Pacific Ocean bounded by a line commencing at the north-west corner at:

	Latitude	Longitude
	11.08333 N	-117.816670 W (the point of commencement)
then to	11.08333 N	-116.066667 W
then to	9.89500 N	-116.066667 W
then to	9.89500 N	-117.816670 W
then to	11.08333 N	-117.816670 W (being the point of commencement)



ISBA/17/C/10* 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 for polymetallic nodules by Tonga Offshore Mining Limited
Submitted by Legal and Technical Commission

Date: 8 July 2011

I. INTRODUCTION

1. On 10 April 2008, 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/6/A/18, annex) by Tonga Offshore Mining Limited (TOML). The application covers a total surface area of 74,713 km² 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. The reserved areas in the application were contributed by the Federal Institute for Geosciences and Natural Resources of the Federal Republic of Germany, Deep Ocean Resources Development Co., Ltd., the Government of the Republic of Korea and the Institut français de recherche pour l'exploitation de la mer.

2. In accordance with regulation 20, paragraph 1 (c), of the Regulations, the Secretary-General notified members of the Authority of the receipt of the application and circulated to them 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 19 to 28 May 2008.

3. The Commission was informed that the applicant had formally notified the Secretary-General of its intention to make an application for approval of a plan of work for exploration in a reserved area on 3 April 2008. Thereafter, in accordance with regulation 17, paragraph 1, of the Regulations, the Secretary-General on 11 April 2008 forwarded such notification to the Enterprise (represented by its Interim Director-General), whereupon the Interim Director-General informed the Secretary-General in writing that the Enterprise had no intention of carrying out activities in the areas under application.

4. In that regard, the Commission recalled that the Enterprise had not yet begun to function independently of the Secretariat of the Authority and that, by reason of article 170 of the Convention and of section 2, paragraph 2, 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 1994, the Council would only take up the issue of the functioning of the Enterprise independently of the Secretariat of the Authority either: (a) upon the approval of a plan of work for exploitation by an entity other than the Enterprise; or (b) upon receipt by the Council of an application for a joint-venture operation with the Enterprise. Until such time as either of these eventualities takes place, the Secretariat of the Authority shall perform the functions of the Enterprise, which shall be set out in section 2, paragraph 1 of the annex to the Agreement.

5. The Commission met to consider the application on 21, 22, 26 and 27 May 2008. As the Commission had not reached consensus with respect to a recommendation to the Council in relation to the application, it decided to continue its consideration of the application at the next possible opportunity. The matter was placed on the agenda of the Commission for its fifteenth session. At that session, the Commission was informed that, by a letter dated 5 May 2009 addressed to the Legal Counsel of the Authority, the applicant had requested that consideration of its application be postponed in the light of global economic circumstances and other concerns. The Commission took

* Reissued for technical reasons on 23 November 2011.

due note of the request and decided to defer further consideration of the item until further notice.

6. On 28 April 2011, Tonga Offshore Mining Limited submitted to the Secretary-General updated information in relation to the pending application before the Commission. The matter was then placed on the agenda of the Commission for its seventeenth session.

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

7. In its consideration of the application, the Commission noted that, in keeping with annex III, article 6, of the Convention, it is first required to make an objective determination as to whether the applicant has fulfilled the requirements set out in the Regulations, particularly with respect to the form of applications; whether the applicant has provided the necessary undertakings and assurances specified in regulation 14 of the Regulations; and whether it has the necessary financial and technical capability to carry out the proposed plan of work for exploration and (as appropriate) has 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.

8. In considering the proposed plan of work for exploration for polymetallic nodules, the Commission had regard to 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.

B. Consideration of the application at the seventeenth session

9. The Commission considered the application in closed meetings on 5 to 7 July 2011. The Commission took note of the updated information submitted by the applicant, as well as the written answers to a list of questions transmitted on 23 May 2008 by the Chairman of the Legal and Technical Commission through the Secretary-General.

10. Prior to commencing a detailed examination of the application, the Commission invited the applicant's representative, Paul Taumoepeau, TOML Country Manager, accompanied by Aminiasi Kefu, Solicitor-General of the Kingdom of Tonga, Rennie Vaiomounga, Ministry of Lands, Survey and Natural Resources, Michael Johnston, Vice-President Strategic Development, Nautilus Minerals Incorporated and Samantha Smith, Environment Manager, Nautilus Minerals Incorporated, to present 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.

11. The Commission's detailed examination of the legal and financial, technical and environmental aspects of the application was conducted in smaller groups.

III. SUMMARY OF BASIC INFORMATION REGARDING THE APPLICATION

A. Identification of the applicant

12. Name of applicant: Tonga Offshore Mining Limited.
13. Address of applicant:
- (a) Street address: 2nd Floor, Kupu House, Fatafehi Road, Kingdom of Tonga;
 - (b) Postal address: P. O. Box 893, Nuku'alofa, Tongatapu, Kingdom of Tonga;
 - (c) Telephone: +676 21 733;
 - (d) Facsimile number: none;
 - (e) E-mail address: office@tongaoffshoremining.com.
14. Applicant's designated representative:
- (a) Name: Paul Taumoepeau;
 - (b) Address: 2nd Floor, Kupu House, Fatafehi Road, P. O. Box 893, Nuku'alofa, Kingdom of Tonga;
 - (c) Telephone number: +676 21 733;
 - (d) Facsimile number: none;
 - (e) E-mail address: office@tongaoffshoremining.com;
 - (f) Applicant's place of registration and principal place of business/ domicile: The Kingdom of Tonga.
15. The applicant indicated that TOML is a registered national of the Kingdom of Tonga that is incorporated within the jurisdiction of the Kingdom of Tonga and is under the effective control of the Kingdom of Tonga. TOML is a Tongan incorporated subsidiary of Nautilus Minerals Incorporated, which holds 100 per cent of the shares of TOML through another wholly owned subsidiary, United Nickel Ltd., incorporated in Canada. According to the information provided by the applicant, United Nickel is an investment vehicle, similar to other 100 per cent owned investment vehicles that Nautilus Minerals Incorporated uses to keep its various licences in order to allow the company to easily manage its corporate investments. Details of the corporate structure of Nautilus Minerals Incorporated were provided to the Commission at its request. Nautilus Minerals Incorporated has among its largest shareholders Teck Cominco, AngloAmerican and Gazmetall. A copy of the Certificate of Incorporation of TOML has been submitted.

B. Sponsorship

16. Sponsoring State: The Kingdom of Tonga.
17. Date of deposit of the Kingdom of Tonga's instrument of ratification of, or accession to, the 1982 United Nations Convention on the Law of the Sea and the date of the consent to be bound by the Agreement relating to the Implementation of Part XI of the Convention: 2 August 1995.
18. Date of certificate of sponsorship: 12 March 2008, signed by Hon. Tuita, Minister of Lands, Survey, Natural Resources and Environment, Kingdom of Tonga.
19. The Commission noted that the application was sponsored by the Kingdom of Tonga and that a certificate of sponsorship, in due and proper form, had been submitted, under which the Kingdom of Tonga stated that the applicant is under the effective control of the Kingdom of Tonga and declared further that it assumed responsibility in accordance with article 139, article 153, paragraph 4, and Annex III, article 4, paragraph 4, of the Convention.

During the presentation, in response to questions from the Commission, the representatives of the Kingdom of Tonga also stated the intention to adopt laws and regulations and to take administrative measures, within the framework of its legal system, for securing compliance by the applicant under its jurisdiction.

C. Area of application

20. The application area of Tonga Offshore Mining Limited covers a total of 74,713 km² in the Clarion-Clipperton Zone of the Pacific Ocean. The area lies within the reserved areas and is divided into six regions: Area A is located within Block 2 and covers an area of 10,281 km²; Area B is located within Block 15 and covers an area of 9,966 km²; Area C is located within Block 16 and covers an area of 15,763 km²; Area D is located within Block 21 and covers an area of 15,881 km²; Area E is located within Block 20 and covers an area of 7,002 km²; Area F is located within Block 25 and covers an area of 15,820 km². The coordinates and general location of the areas under application are shown in the annex to the present document.

D. Other information

21. Date of receipt of application: 10 April 2008.

22. Previous contracts with Authority: the applicant has not been previously awarded any contract with the Authority.

23. Undertakings: the applicant submitted a written undertaking dated 28 April 2011 signed by the Country Manager of Tonga Offshore Mining Limited, Paul Taumoepeau, stating that it will comply with regulation 14 of the Regulations.

IV. EXAMINATION OF INFORMATION AND TECHNICAL DATA SUBMITTED BY THE APPLICANT

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

- (a) Information relating to the application area:
 - (i) Boundaries of the area under application according to the World Geodetic System 1984;
 - (ii) A chart and a list of the coordinates of the area under application;
- (b) Certificate of sponsorship issued by the sponsoring State;
- (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 programmes.

25. During his presentation, the representative of the applicant provided clarifications as required by the Commission on the information and technical data supplied.

V. CONSIDERATION OF FINANCIAL AND TECHNICAL QUALIFICATIONS OF THE APPLICANT

A. Financial capacity

26. In evaluating the financial capacity of the applicant, the Commission noted that Tonga Offshore Mining Limited was incorporated in the Kingdom of Tonga on 7 May 2008 and is a Tongan incorporated subsidiary of Nautilus Minerals Incorporated. The Commission was provided with a letter dated 11 July 2011 from Avisar Chartered Accountants, of British Columbia, Canada, stating that the applicant had the financial resources to carry out the proposed plan of work for exploration. In accordance with regulation 12, paragraph 5 (b) of the Regulations, the Commission was also provided with the financial statements of Nautilus Minerals Incorporated, the parent company of Tonga Offshore Mining Limited, for 2007 to 2010.

B. Technical capacity

27. The Commission was provided with technical information in relation to the previous experience and skills of Nautilus Minerals in the field of dredging, excavation techniques and deep-sea mining technology. The Commission noted that the applicant's technical team benefits from the experience of leaders in the field of seafloor mining. To date, Nautilus's activities have focused on pioneering the commercial development of seafloor polymetallic sulphides within the exclusive economic zones of south-west Pacific island nations, and is currently preparing for commercial extraction of polymetallic sulphides on the Solwara 1 project in Papua New Guinea.

28. The Commission was provided with information related to the prevention, reduction and control of hazards and possible impacts to the marine environment. This included the description of a plan for a programme for oceanographic and environmental baseline studies to ensure that the exploration activities have minimal impact on the marine environment. It enclosed a plan of action to take necessary measures to prevent, reduce and control pollution and other hazards to the marine environment arising from the exploration activities. It also included a description of a monitoring programme and the proposed measures for the prevention, reduction and control of pollution and other hazards, as well as their possible impacts to the marine environment.

VI. CONSIDERATION OF DATA AND INFORMATION SUBMITTED FOR THE APPROVAL OF THE PLAN OF WORK FOR EXPLORATION OF POLYMETALLIC NODULES

29. 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, 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 the Regulations and 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, 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 of the Regulations;

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

30. The Commission was satisfied that the information presented met the requirements of the Regulations and noted that it looked forward to the submission of reports and data by the applicant as required by the Regulations and the Commission's recommendations for the guidance of contractors.

VII. TRAINING PROGRAMME

31. In accordance with regulation 27 and with Annex 4, section 8, of the Regulations, the applicant indicated that prior to the commencement of exploration, the contractor will draw up training programmes in cooperation with the Authority and the Kingdom of Tonga, and will submit these programmes to the Authority for approval.

VIII. CONCLUSION AND RECOMMENDATIONS

32. Having examined the particulars submitted by the applicant, summarized in sections II to VII of the present document, 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, articles 4 and 9, of 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.

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

34. 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.

35. 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 Tonga Offshore Mining Limited.

Annex

List of coordinates and map of general location of the reserved areas under application

Area A (10,281 km²)

All that area of seafloor within reserved Block 2 in the Clarion-Clipperton Zone of the Pacific Ocean bounded by a line commencing at the north-west corner at:

	<i>Latitude</i>	<i>Longitude</i>
	8.1667 N	-152.510 W (the point of commencement)
then to	8.1667 N	-151.667 W
then to	7.1667 N	-151.667 W
then to	7.1667 N	-152.510 W
then to	8.1667 N	-152.510 W being the point of commencement

Area B (9,966 km²)

All that area of seafloor within reserved Block 15 in the Clarion-Clipperton Zone of the Pacific Ocean bounded by a line commencing at the north-west corner at:

	<i>Latitude</i>	<i>Longitude</i>
	14.2900 N	-132.800 W (the point of commencement)
then to	14.6667 N	-132.000 W
then to	13.5801 N	-132.000 W
then to	13.5801 N	-133.200 W
then to	13.8667 N	-133.200 W
then to	13.8667 N	-132.800 W
then to	14.2900 N	-132.800 W being the point of commencement

Area C (15,763 km²)

All that area of seafloor within reserved Block 16 in the Clarion-Clipperton Zone of the Pacific Ocean bounded by a line commencing at the north-west corner at:

	<i>Latitude</i>	<i>Longitude</i>
	15.800 N	-131.00000 W (the point of commencement)
then to	15.800 N	-130.00000 W
then to	15.333 N	-130.00000 W
then to	15.333 N	-129.30000 W
then to	15.500 N	-128.58333 W
then to	15.000 N	-128.58333 W
then to	15.000 N	-131.00000 W
then to	15.800 N	-131.00000 W being the point of commencement

Area D (15,881 km²)

All that area of seafloor within reserved Block 21 in the Clarion-Clipperton Zone of the Pacific Ocean bounded by a line commencing at the north-west corner at:

	<i>Latitude</i>	<i>Longitude</i>
	14.083333 N	-123.583333 W
then to	13.125000 N	-123.583333 W
then to	13.125000 N	-124.375000 W
then to	13.375000 N	-124.375000 W
then to	13.375000 N	-125.333300 W
then to	13.750000 N	-125.333300 W
then to	13.750000 N	-125.000000 W
then to	14.083333 N	-125.000000 W
then to	14.083333 N	-123.583333 W being the point of commencement

Area E (7,002 km²)

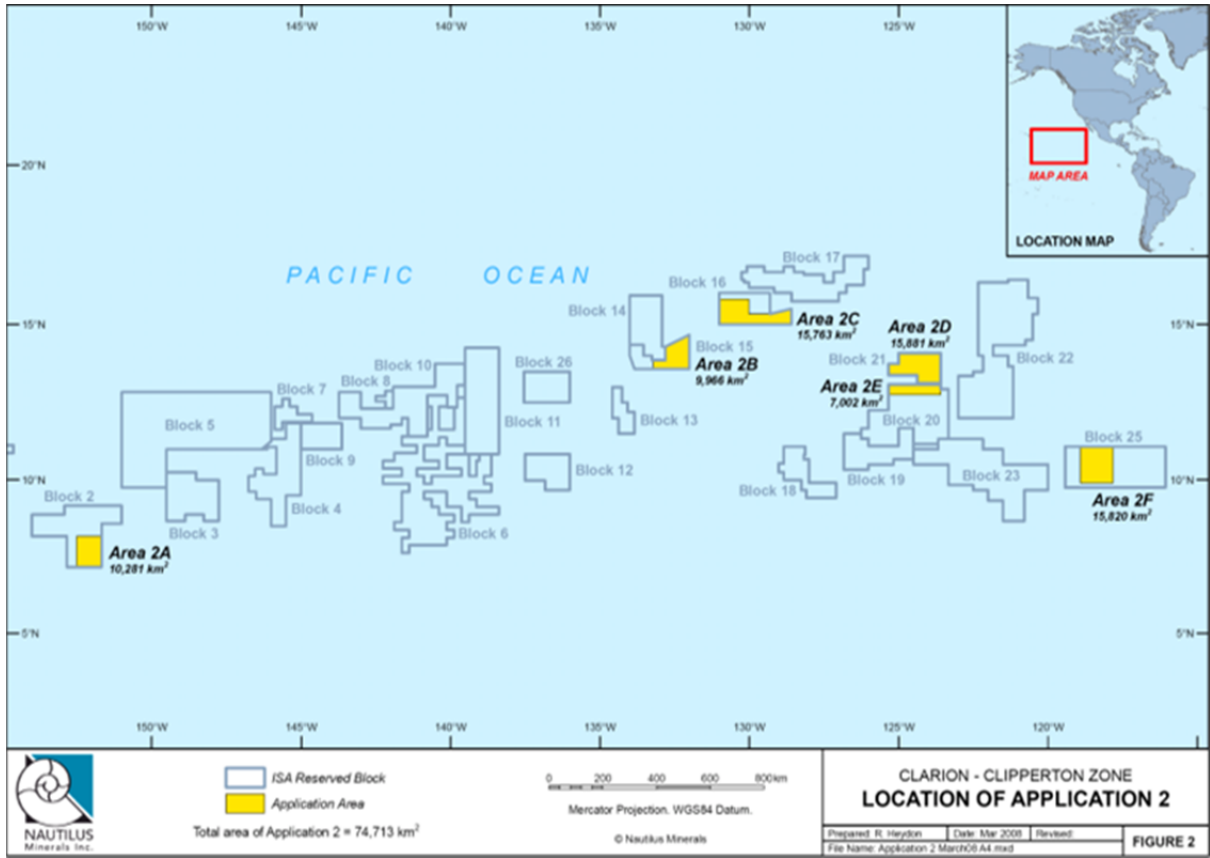
All that area of seafloor within reserved Block 20 in the Clarion-Clipperton Zone of the Pacific Ocean bounded by a line commencing at the north-west corner at:

	<i>Latitude</i>	<i>Longitude</i>
	13.0833 N	-125.333 W (the point of commencement)
then to	13.0833 N	-123.583 W
then to	12.7500 N	-123.583 W
then to	12.7500 N	-125.333 W
then to	13.0833 N	-125.333 W being the point of commencement

Area F (15,820 km²)

All that area of seafloor within reserved Block 25 in the Clarion-Clipperton Zone of the Pacific Ocean bounded by a line commencing at the north-west corner at:

	<i>Latitude</i>	<i>Longitude</i>
	11.083333 N	-117.81667 W (the point of commencement)
then to	9.895000 N	-117.81667 W
then to	9.895000 N	-118.91667 W
then to	11.083333 N	-118.91667 W
then to	11.083333 N	-117.81667 W being the point of commencement



ISBA/17/C/11* Report and recommendations to the Council of the International Seabed Authority relating to an application for approval of a plan of work for exploration for polymetallic sulphides by the China Ocean Mineral Resources Research and Development Association
Submitted by the Legal and Technical Commission

Date: 8 July 2011

I. INTRODUCTION

1. On 7 May 2010, the Secretary-General of the International Seabed Authority received an application for 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 (“the Regulations”) by the China Ocean Mineral Resources Research and Development Association (COMRA). The area under application covers approximately 10,000 km² and consists of 100 blocks measuring approximately 10 kilometres by 10 kilometres each, which are grouped into 12 clusters, each containing from 5 to 19 blocks. The clusters are not contiguous but are proximate and confined within a rectangular area not exceeding 300,000 km² in size where the longest side does not exceed 1,000 kilometres in length.

2. In accordance with regulation 22, paragraph (c) of the Regulations, on 14 May 2010, the Secretary-General notified all 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 4 to 13 July 2011.

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 annex III, article 6, of the United Nations Convention on the Law of the Sea (“the Convention”), it is first required to make an objective determination as to whether the applicant has fulfilled the requirements contained in the Regulations, particularly with respect to the form of applications; whether the applicant has provided the necessary undertakings and assurances specified in regulation 15 of the Regulations; and whether it has the necessary financial and technical capability to carry out the proposed plan of work for exploration and (as appropriate) has 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 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 (5) of the Regulations goes on to provide that:

* Reissued for technical reasons on 19 July 2011.

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 had regard to 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 1994 ("the Agreement"), in accordance with regulation 23, paragraph 9 of the Regulations.

B. Consideration of the application

5. The Commission considered the application in closed meetings on 5, 6 and 8 July 2011.

6. Prior to commencing a detailed examination of the application, the Commission invited the applicant's representative, Mr. Jin Jiancai, Secretary-General of COMRA, accompanied by Mr. Li Jiabiao, Deputy Director of the Second Institute of Oceanography of the State Oceanic Administration and Mr. Tao Chunhui, Senior researcher at the Second Institute of Oceanography of the State Oceanic Administration, 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. On 6 July 2011, the Commission decided to request the Chairman of the Commission to transmit a list of questions to the applicant through the Secretary-General. A formal response to these questions was provided by the applicant on 8 July 2011.

III. SUMMARY OF BASIC INFORMATION REGARDING THE APPLICATION

A. Identification of the applicant

7. Name of applicant: China Ocean Mineral Resources Research and Development Association.

8. Address of applicant:

- (a) Street address: 1 Fuxingmenwai Avenue, Beijing, China, 100860;
- (b) Postal address: as above;
- (c) Telephone number: 86-10-68022117;
- (d) Facsimile number: 86-10-68033318;
- (e) Electronic mail address: comra@comra.org.

9. Applicant's designated representative:

- (a) Name: Mr. Jin Jiancai;
- (b) Street address of applicant's designated representative: as above;
- (c) Postal address: as above;
- (d) Telephone number: 86-10-68030504;
- (e) Facsimile number: 86-10-68030504;
- (f) Electronic mail address: jin@comra.org.

10. Applicant's place of registration and principal place of business/domicile: Beijing, China.

11. The applicant indicated that COMRA is registered as a State entity in the sponsoring State and is under the effective control of the sponsoring State.

B. Sponsorship

12. Sponsoring State: China.

13. Date of deposit of instrument of ratification by China of the 1982 United Nations Convention on the Law of the Sea: 7 June 1996; date of the 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: 7 June 1996.

14. Date of certificate of sponsorship: 6 May 2010.

15. The Commission noted that the application was sponsored by China and that a certificate of sponsorship, in due and proper form, had been submitted. In that certificate, the State Oceanic Administration, acting on behalf of China, and as authorized by the State Council of China, stated that COMRA is under the effective control of China; in that certificate, the sponsoring State declared that it assumed responsibility in accordance with article 139, article 153, paragraph 4, and annex III, article 4, paragraph 4, of the Convention.

C. Area of application

16. The application area of COMRA is located in the Southwest Indian Ridge. It includes 100 blocks measuring approximately 10 kilometres by 10 kilometres each, but not exceeding 100 km². The total area covered by the application is approximately 10,000 km² and does not exceed 10,000 km². The blocks under application are grouped into 12 clusters, each containing from 5 to 19 blocks. The clusters of blocks of polymetallic sulphides are not contiguous, but are proximate and confined within a rectangular area not exceeding 300,000 km² in size where the longest side does not exceed 1,000 kilometres in length. The coordinates and general location of the areas under application are shown in the annex to the present document.

D. Other information

17. Date of receipt of application: 7 May 2010.

18. Previous contracts with the Authority:

(a) Date of the previous contract: COMRA and the Authority signed a contract for exploration for polymetallic nodules in the Area on 22 May 2001 in Beijing, China;

(b) Reports submitted to the Authority in connection with the contract for exploration for polymetallic nodules:

- Annual report for 2001, submitted in March 2002
- Annual report for 2002, submitted in March 2003
- Annual report for 2003, submitted in March 2004
- Annual report for 2004, submitted in March 2005
- Annual report for 2005, submitted in March 2006
- Five-year period report for the period 2001-2005, submitted in March 2006
- Annual report for 2006, submitted in March 2007
- Annual report for 2007, submitted in March 2008
- Annual report for 2008, submitted in March 2009

- Annual report for 2009, submitted in March 2010
- Annual report for 2010, submitted in March 2011
- Five-year report for the period 2006-2010, submitted in March 2011

(c) The date of expiration of the contract: 21 May 2016.

19. Undertakings: the applicant submitted a written undertaking dated 6 May 2010 signed by Mr. Jin Jiancai, the designated representative of COMRA, stating that it will comply with regulation 15 of the Regulations.

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

21. The applicant has paid the fixed fee of \$50,000 for its application, to be followed by an annual fee, pursuant to regulation 21, paragraph 1 (b) of the Regulations.

IV. EXAMINATION OF INFORMATION AND TECHNICAL DATA SUBMITTED BY THE APPLICANT

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

- (a) Copy of the applicant's certificate of registration as a State entity of China;
- (b) Certificate of sponsorship issued by the sponsoring State, China;
- (c) Information relating to the area under application:
 - (i) Chart of the location of the blocks;
 - (ii) A list of the coordinates of the corners of blocks under application;
- (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) Indicative plan of work for exploration;
- (g) Written undertakings by the applicant.

V. CONSIDERATION OF FINANCIAL AND TECHNICAL QUALIFICATIONS OF THE APPLICANT

A. Financial Capacity

23. In evaluating the financial capacity of the applicant, the Commission noted that COMRA had declared its financial capacity to carry out the proposed plan of work for exploration and fulfil its financial obligations to the Authority. The Commission was provided with a statement dated 6 May 2010 and signed by Mr. Xie Xuren, Minister of Finance of China, certifying that the applicant would have the necessary funds to meet the estimated minimum expenditures under the proposed plan of work and fulfil its financial obligations to the Authority.

B. Technical Capacity

24. The Commission was provided with technical information in relation to COMRA's previous experience and skills in the field of exploration for polymetallic nodules and scientific research on polymetallic sulphides deposits. The Commission noted that the applicant recalled its experience as a pioneer investor and current contractor with the Authority for exploration for polymetallic nodules to demonstrate its capability to carry out the investigation and development of seabed mineral resources, environmental assessment and scientific research. The applicant

further stated that it had been accumulating data and experience concerning the distribution of and methods for exploration for polymetallic sulphides and their environment for the past 10 years.

25. The Commission was provided with information related to the prevention, reduction and control of hazards and possible impacts to the marine environment. This included the description of a plan for a programme for oceanographic and environmental baseline studies to ensure that the exploration activities cause minimal impact on the marine environment. It enclosed a plan of action to take necessary measures to prevent, reduce and control pollution and other hazards to the marine environment arising from the exploration activities. A description of a monitoring programme and proposed measures for the prevention, reduction and control of pollution and other hazards, as well as possible impacts, to the marine environment was also provided. In its response to the Commission, COMRA indicated that it will employ the most appropriate equipment available for the survey and research of active hydrothermal vents to improve scientific understanding of the ecosystems and facilitate scientific assessment of the ecological environment, for the purpose of providing the scientific basis for the protection of the active hydrothermal vent ecosystem.

26. In response to oral and written questions from the Commission with respect to whether exploration activities will take place in active vents and with respect to the strategic measures that the applicant will adopt to mitigate the effects of such activities, the applicant stated that COMRA was of the view that exploitation of polymetallic sulphides should not be conducted on active hydrothermal vents on the seabed. Given the limited scientific knowledge available and existing uncertainties, COMRA believes that the precautionary approach should be applied and the equipment testing related to the exploitation should also be located away from the active hydrothermal vents so as to avoid possible harm to the biological community living near the active vents.

VI. 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 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 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 environmental rules, regulations and procedures established by the Authority. Such studies 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 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 (financial obligations to the Authority); and
- (f) A schedule of anticipated yearly expenditures in respect of the programme of activities for the first five-year period.

28. The Commission was satisfied that the information presented met the requirements of the Regulations and noted that it looked forward to the submission of reports, including relevant data, by the applicant, as required by the Regulations and any recommendations for guidance to be issued by the Commission in due course.

29. The Commission also took note of the fact that some of COMRA's proposed exploration blocks were located in close proximity to an area that is the subject of a voluntary closure to deep-sea bottom fishing. In this regard, the Commission welcomed the communication from COMRA in which it recalled article 147 of the Convention and emphasized its commitment to protecting benthic ecosystems and that it would respect all the relevant resolutions adopted by the United Nations General Assembly, the Food and Agriculture Organization of the United Nations (FAO) and relevant fisheries organizations. The Commission also noted that COMRA had declared its intention to strictly abide by the relevant rules, regulations and decisions of the Authority.

VII. TRAINING PROGRAMME

30. The applicant indicated that, in accordance with regulation 29 and section 8 of annex 4 to the Regulations, the contractor will draw up training programmes in cooperation with the Authority and the sponsoring State and will submit these programmes to the Authority for approval.

VIII. CONCLUSION AND RECOMMENDATIONS

31. 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 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.

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

33. 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.

34. 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 COMRA.

Annex

List of coordinates and map of general location of the reserved areas under application

Block number	Longitude E			Latitude S			Longitude	Latitude	Area size sq km ^a
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Decimal	Decimal	
1	46	21	28.07	39	6	31.64	46.3577972222	-39.1087888889	99.95
	46	21	28.07	39	0	56.47	46.3577972222	-39.0156861111	
	46	28	10.47	39	0	56.47	46.4695750000	-39.0156861111	
	46	28	10.47	39	6	31.64	46.4695750000	-39.1087888889	

Block number	Longitude E			Latitude S			Longitude	Latitude	Area size sq km ^a
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Decimal	Decimal	
2	46	21	28.07	39	0	56.47	46.3577972222	-39.0156861111	99.95
	46	21	28.07	38	55	21.73	46.3577972222	-38.9227027778	
	46	28	10.47	38	55	21.73	46.4695750000	-38.9227027778	
	46	28	10.47	39	0	56.47	46.4695750000	-39.0156861111	
3	46	28	10.47	39	3	5.29	46.4695750000	-39.0514694444	99.96
	46	28	10.47	38	57	24.28	46.4695750000	-38.9567444444	
	46	34	45.66	38	57	24.28	46.5793500000	-38.9567444444	
	46	34	45.66	39	3	5.29	46.5793500000	-39.0514694444	
4	46	34	45.66	38	57	50.87	46.5793500000	-38.9641305556	99.97
	46	34	45.66	38	52	10.27	46.5793500000	-38.8695194444	
	46	41	20.86	38	52	10.27	46.6891277778	-38.8695194444	
	46	41	20.86	38	57	50.87	46.6891277778	-38.9641305556	
5	46	41	20.86	38	57	37.44	46.6891277778	-38.9604000000	99.97
	46	41	20.86	38	51	56.87	46.6891277778	-38.8657972222	
	46	47	56.06	38	51	56.87	46.7989055556	-38.8657972222	
	46	47	56.06	38	57	37.44	46.7989055556	-38.9604000000	
6	46	47	56.06	38	56	27.13	46.7989055556	-38.9408694444	99.98
	46	47	56.06	38	50	51.23	46.7989055556	-38.8475638889	
	46	54	36.66	38	50	51.23	46.9101833333	-38.8475638889	
	46	54	36.66	38	56	27.13	46.9101833333	-38.9408694444	
7	47	1	1.01	38	54	29.65	47.0169472222	-38.9082361111	100.00
	47	1	1.01	38	48	54.25	47.0169472222	-38.8150694444	
	47	7	42.02	38	48	54.25	47.1283388889	-38.8150694444	
	47	7	42.02	38	54	29.65	47.1283388889	-38.9082361111	
8	47	7	42.02	38	53	4.55	47.1283388889	-38.8845972222	100.00
	47	7	42.02	38	47	29.26	47.1283388889	-38.7914611111	
	47	14	23.03	38	47	29.26	47.2397305556	-38.7914611111	
	47	14	23.03	38	53	4.55	47.2397305556	-38.8845972222	
9	47	14	23.03	38	51	41.41	47.2397305556	-38.8615027778	100.01
	47	14	23.03	38	46	6.23	47.2397305556	-38.7683972222	
	47	21	4.04	38	46	6.23	47.3511222222	-38.7683972222	
	47	21	4.04	38	51	41.41	47.3511222222	-38.8615027778	
10	47	21	4.04	38	52	9.72	47.3511222222	-38.8693666667	100.02
	47	21	4.04	38	46	34.5	47.3511222222	-38.7762500000	
	47	27	45.05	38	46	34.5	47.4625138889	-38.7762500000	
	47	27	45.05	38	52	9.72	47.4625138889	-38.8693666667	
11	47	21	41.8	38	46	34.5	47.3616111111	-38.7762500000	100.02
	47	21	41.8	38	40	59.71	47.3616111111	-38.6832527778	
	47	28	22.81	38	40	59.71	47.4730027778	-38.6832527778	
	47	28	22.81	38	46	34.5	47.4730027778	-38.7762500000	

Block number	Longitude E			Latitude S			Longitude	Latitude	Area size sq km ^a
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Decimal	Decimal	
12	47	27	45.05	38	52	9.72	47.4625138889	-38.8693666667	100.03
	47	27	45.05	38	46	34.5	47.4625138889	-38.7762500000	
	47	34	26.06	38	46	34.5	47.5739055556	-38.7762500000	
	47	34	26.06	38	52	9.72	47.5739055556	-38.8693666667	
13	47	34	26.06	38	53	49.61	47.5739055556	-38.8971138889	100.04
	47	34	26.06	38	48	14.26	47.5739055556	-38.8039611111	
	47	41	7.07	38	48	14.26	47.6852972222	-38.8039611111	
	47	41	7.07	38	53	49.61	47.6852972222	-38.8971138889	
14	46	38	3.08	38	44	11.62	46.6341888889	-38.7365611111	100.03
	46	38	3.08	38	38	39.99	46.6341888889	-38.6444416667	
	46	44	47.69	38	38	39.99	46.7465805556	-38.6444416667	
	46	44	47.69	38	44	11.62	46.7465805556	-38.7365611111	
15	46	44	47.69	38	45	56.84	46.7465805556	-38.7657888889	99.98
	46	44	47.69	38	40	25.07	46.7465805556	-38.6736305556	
	46	51	32.31	38	40	25.07	46.8589750000	-38.6736305556	
	46	51	32.31	38	45	56.84	46.8589750000	-38.7657888889	
16	46	51	32.31	38	44	6.43	46.8589750000	-38.7351194444	99.98
	46	51	32.31	38	38	34.81	46.8589750000	-38.6430027778	
	46	58	16.92	38	38	34.81	46.9713666667	-38.6430027778	
	46	58	16.92	38	44	6.43	46.9713666667	-38.7351194444	
17	46	58	16.92	38	43	34	46.9713666667	-38.7261111111	99.99
	46	58	16.92	38	38	2.41	46.9713666667	-38.6340027778	
	47	5	1.53	38	38	2.41	47.0837583333	-38.6340027778	
	47	5	1.53	38	43	34	47.0837583333	-38.7261111111	
18	47	5	1.53	38	44	6.53	47.0837583333	-38.7351472222	100.00
	47	5	1.53	38	38	31.93	47.0837583333	-38.6422027778	
	47	11	42.54	38	38	31.93	47.1951500000	-38.6422027778	
	47	11	42.54	38	44	6.53	47.1951500000	-38.7351472222	
19	47	11	42.54	38	43	9.45	47.1951500000	-38.7192916667	100.01
	47	11	42.54	38	37	34.92	47.1951500000	-38.6263666667	
	47	18	23.55	38	37	34.92	47.3065416667	-38.6263666667	
	47	18	23.55	38	43	9.45	47.3065416667	-38.7192916667	
20	47	18	23.55	38	40	59.71	47.3065416667	-38.6832527778	100.02
	47	18	23.55	38	35	25.35	47.3065416667	-38.5903750000	
	47	25	4.56	38	35	25.35	47.4179333333	-38.5903750000	
	47	25	4.56	38	40	59.71	47.4179333333	-38.6832527778	
21	47	25	4.56	38	40	59.71	47.4179333333	-38.6832527778	100.03
	47	25	4.56	38	35	25.35	47.4179333333	-38.5903750000	
	47	31	45.57	38	35	25.35	47.5293250000	-38.5903750000	
	47	31	45.57	38	40	59.71	47.5293250000	-38.6832527778	

Block number	Longitude E			Latitude S			Longitude	Latitude	Area size sq km ^a
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Decimal	Decimal	
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	47	31	45.57	38	34	43.9	47.5293250000	-38.5788611111	
	47	38	26.58	38	34	43.9	47.6407166667	-38.5788611111	
	47	38	26.58	38	40	18.21	47.6407166667	-38.6717250000	
23	47	38	26.58	38	34	49.21	47.6407166667	-38.5803361111	100.05
	47	38	26.58	38	29	19.76	47.6407166667	-38.4888222222	
	47	45	13	38	29	19.76	47.7536111111	-38.4888222222	
	47	45	13	38	34	49.21	47.7536111111	-38.5803361111	
24	47	45	13	38	29	35.27	47.7536111111	-38.4931305556	100.06
	47	45	13	38	24	6.21	47.7536111111	-38.4017250000	
	47	51	59.41	38	24	6.21	47.8665027778	-38.4017250000	
	47	51	59.41	38	29	35.27	47.8665027778	-38.4931305556	
25	47	51	59.41	38	24	17.43	47.8665027778	-38.4048416667	100.08
	47	51	59.41	38	18	48.76	47.8665027778	-38.3135444444	
	47	58	45.82	38	18	48.76	47.9793944444	-38.3135444444	
	47	58	45.82	38	24	17.43	47.9793944444	-38.4048416667	
26	48	16	35.77	38	25	54.68	48.2766027778	-38.4318555556	100.05
	48	16	35.77	38	20	26.26	48.2766027778	-38.3406277778	
	48	23	22.64	38	20	26.26	48.3896222222	-38.3406277778	
	48	23	22.64	38	25	54.68	48.3896222222	-38.4318555556	
27	48	21	0	38	20	26.26	48.3500000000	-38.3406277778	100.04
	48	21	0	38	14	58.25	48.3500000000	-38.2495138889	
	48	27	46.87	38	14	58.25	48.4630194444	-38.2495138889	
	48	27	46.87	38	20	26.26	48.4630194444	-38.3406277778	
28	48	25	27.95	38	14	58.25	48.4244305556	-38.2495138889	100.04
	48	25	27.95	38	9	30.64	48.4244305556	-38.1585111111	
	48	32	14.82	38	9	30.64	48.5374500000	-38.1585111111	
	48	32	14.82	38	14	58.25	48.5374500000	-38.2495138889	
29	48	32	14.82	38	14	58.25	48.5374500000	-38.2495138889	100.02
	48	32	14.82	38	9	30.64	48.5374500000	-38.1585111111	
	48	39	1.69	38	9	30.64	48.6504694444	-38.1585111111	
	48	39	1.69	38	14	58.25	48.6504694444	-38.2495138889	
30	48	32	14.82	38	9	30.64	48.5374500000	-38.1585111111	100.03
	48	32	14.82	38	4	3.43	48.5374500000	-38.0676194444	
	48	39	1.69	38	4	3.43	48.6504694444	-38.0676194444	
	48	39	1.69	38	9	30.64	48.6504694444	-38.1585111111	
31	48	28	31.53	38	4	3.43	48.4754250000	-38.0676194444	100.03
	48	28	31.53	37	58	36.62	48.4754250000	-37.9768388889	
	48	35	18.4	37	58	36.62	48.5884444444	-37.9768388889	
	48	35	18.4	38	4	3.43	48.5884444444	-38.0676194444	

Block number	Longitude E			Latitude S			Longitude	Latitude	Area size sq km ^a
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Decimal	Decimal	
32	48	21	44.67	38	4	3.43	48.3624083333	-38.0676194444	100.04
	48	21	44.67	37	58	36.62	48.3624083333	-37.9768388889	
	48	28	31.53	37	58	36.62	48.4754250000	-37.9768388889	
	48	28	31.53	38	4	3.43	48.4754250000	-38.0676194444	
33	48	14	57.8	38	7	15.8	48.2493888889	-38.1210555556	100.05
	48	14	57.8	38	1	48.76	48.2493888889	-38.0302111111	
	48	21	44.67	38	1	48.76	48.3624083333	-38.0302111111	
	48	21	44.67	38	7	15.8	48.3624083333	-38.1210555556	
34	48	14	32.08	38	12	43.25	48.2422444444	-38.2120138889	100.06
	48	14	32.08	38	7	15.8	48.2422444444	-38.1210555556	
	48	21	18.95	38	7	15.8	48.3552638889	-38.1210555556	
	48	21	18.95	38	12	43.25	48.3552638889	-38.2120138889	
35	48	45	3.46	38	8	59.27	48.7509611111	-38.1497972222	100.00
	48	45	3.46	38	3	29.22	48.7509611111	-38.0581166667	
	48	51	46.77	38	3	29.22	48.8629916667	-38.0581166667	
	48	51	46.77	38	8	59.27	48.8629916667	-38.1497972222	
36	48	51	46.77	38	8	32.66	48.8629916667	-38.1424055556	100.00
	48	51	46.77	38	3	2.64	48.8629916667	-38.0507333333	
	48	58	30.09	38	3	2.64	48.9750250000	-38.0507333333	
	48	58	30.09	38	8	32.66	48.9750250000	-38.1424055556	
37	48	58	30.09	38	8	32.66	48.9750250000	-38.1424055556	99.99
	48	58	30.09	38	3	2.64	48.9750250000	-38.0507333333	
	49	5	13.41	38	3	2.64	49.0870583333	-38.0507333333	
	49	5	13.41	38	8	32.66	49.0870583333	-38.1424055556	
38	49	1	21.6	38	3	2.64	49.0226666667	-38.0507333333	99.99
	49	1	21.6	37	57	33.03	49.0226666667	-37.9591750000	
	49	8	4.92	37	57	33.03	49.1347000000	-37.9591750000	
	49	8	4.92	38	3	2.64	49.1347000000	-38.0507333333	
39	49	8	4.92	38	0	4.89	49.1347000000	-38.0013583333	99.98
	49	8	4.92	37	54	32.53	49.1347000000	-37.9090361111	
	49	14	44.63	37	54	32.53	49.2457305556	-37.9090361111	
	49	14	44.63	38	0	4.89	49.2457305556	-38.0013583333	
40	49	14	44.63	37	57	34.09	49.2457305556	-37.9594694444	99.97
	49	14	44.63	37	52	1.91	49.2457305556	-37.8671972222	
	49	21	24.35	37	52	1.91	49.3567638889	-37.8671972222	
	49	21	24.35	37	57	34.09	49.3567638889	-37.9594694444	
41	49	21	24.35	37	57	24.56	49.3567638889	-37.9568222222	99.96
	49	21	24.35	37	51	55.36	49.3567638889	-37.8653777778	
	49	28	7.66	37	51	55.36	49.4687944444	-37.8653777778	
	49	28	7.66	37	57	24.56	49.4687944444	-37.9568222222	

Block number	Longitude E			Latitude S			Longitude	Latitude	Area size sq km ^a
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Decimal	Decimal	
42	48	41	17.24	38	1	13.05	48.6881222222	-38.0202916667	100.01
	48	41	17.24	37	55	40.36	48.6881222222	-37.9278777778	
	48	47	56.65	37	55	40.36	48.7990694444	-37.9278777778	
	48	47	56.65	38	1	13.05	48.7990694444	-38.0202916667	
43	48	47	56.65	38	2	1.89	48.7990694444	-38.0338583333	100.00
	48	47	56.65	37	56	29.13	48.7990694444	-37.9414250000	
	48	54	36.06	37	56	29.13	48.9100166667	-37.9414250000	
	48	54	36.06	38	2	1.89	48.9100166667	-38.0338583333	
44	48	47	56.65	37	56	29.13	48.7990694444	-37.9414250000	100.00
	48	47	56.65	37	50	56.78	48.7990694444	-37.8491055556	
	48	54	36.06	37	50	56.78	48.9100166667	-37.8491055556	
	48	54	36.06	37	56	29.13	48.9100166667	-37.9414250000	
45	48	54	36.06	37	54	54.51	48.9100166667	-37.9151416667	99.99
	48	54	36.06	37	49	22.28	48.9100166667	-37.8228555556	
	49	1	15.47	37	49	22.28	49.0209638889	-37.8228555556	
	49	1	15.47	37	54	54.51	49.0209638889	-37.9151416667	
46	49	1	15.47	37	52	26.04	49.0209638889	-37.8739000000	99.99
	49	1	15.47	37	46	53.99	49.0209638889	-37.7816638889	
	49	7	54.88	37	46	53.99	49.1319111111	-37.7816638889	
	49	7	54.88	37	52	26.04	49.1319111111	-37.8739000000	
47	49	7	54.88	37	51	14.71	49.1319111111	-37.8540861111	99.98
	49	7	54.88	37	45	42.75	49.1319111111	-37.7618750000	
	49	14	34.29	37	45	42.75	49.2428583333	-37.7618750000	
	49	14	34.29	37	51	14.71	49.2428583333	-37.8540861111	
48	49	14	34.29	37	49	44.67	49.2428583333	-37.8290750000	99.97
	49	14	34.29	37	44	6.73	49.2428583333	-37.7352027778	
	49	21	6.5	37	44	6.73	49.3518055556	-37.7352027778	
	49	21	6.5	37	49	44.67	49.3518055556	-37.8290750000	
49	49	21	6.5	37	46	41.45	49.3518055556	-37.7781805556	99.96
	49	21	6.5	37	41	8.33	49.3518055556	-37.6856472222	
	49	27	44.11	37	41	8.33	49.4622527778	-37.6856472222	
	49	27	44.11	37	46	41.45	49.4622527778	-37.7781805556	
50	49	27	44.11	37	43	18.34	49.4622527778	-37.7217611111	99.96
	49	27	44.11	37	37	48.45	49.4622527778	-37.6301250000	
	49	34	25.33	37	37	48.45	49.5737027778	-37.6301250000	
	49	34	25.33	37	43	18.34	49.5737027778	-37.7217611111	
51	49	30	26.62	37	55	26.78	49.5073944444	-37.9241055556	99.96
	49	30	26.62	37	49	54.93	49.5073944444	-37.8319250000	
	49	37	6.54	37	49	54.93	49.6184833333	-37.8319250000	
	49	37	6.54	37	55	26.78	49.6184833333	-37.9241055556	

Block number	Longitude E			Latitude S			Longitude	Latitude	Area size sq km ^a
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Decimal	Decimal	
52	49	37	6.54	37	55	44.88	49.6184833333	-37.9291333333	99.95
	49	37	6.54	37	50	13.01	49.6184833333	-37.8369472222	
	49	43	46.46	37	50	13.01	49.7295722222	-37.8369472222	
	49	43	46.46	37	55	44.88	49.7295722222	-37.9291333333	
53	49	37	6.54	37	50	13.01	49.6184833333	-37.8369472222	99.95
	49	37	6.54	37	44	41.55	49.6184833333	-37.7448750000	
	49	43	46.46	37	44	41.55	49.7295722222	-37.7448750000	
	49	43	46.46	37	50	13.01	49.7295722222	-37.8369472222	
54	49	43	46.46	37	51	25.28	49.7295722222	-37.8570222222	99.94
	49	43	46.46	37	45	53.73	49.7295722222	-37.7649250000	
	49	50	26.37	37	45	53.73	49.8406583333	-37.7649250000	
	49	50	26.37	37	51	25.28	49.8406583333	-37.8570222222	
55	49	43	46.46	37	56	57.24	49.7295722222	-37.9492333333	99.94
	49	43	46.46	37	51	25.28	49.7295722222	-37.8570222222	
	49	50	26.37	37	51	25.28	49.8406583333	-37.8570222222	
	49	50	26.37	37	56	57.24	49.8406583333	-37.9492333333	
56	49	50	26.37	37	53	11.86	49.8406583333	-37.8866277778	99.94
	49	50	26.37	37	47	37.17	49.8406583333	-37.7936583333	
	49	57	2.69	37	47	37.17	49.9507472222	-37.7936583333	
	49	57	2.69	37	53	11.86	49.9507472222	-37.8866277778	
57	49	57	2.69	37	50	50.33	49.9507472222	-37.8473138889	99.93
	49	57	2.69	37	45	15.81	49.9507472222	-37.7543916667	
	50	3	39.01	37	45	15.81	50.0608361111	-37.7543916667	
	50	3	39.01	37	50	50.33	50.0608361111	-37.8473138889	
58	50	14	9.96	37	45	49.01	50.2361000000	-37.7636138889	99.92
	50	14	9.96	37	40	21.46	50.2361000000	-37.6726277778	
	50	20	54.26	37	40	21.46	50.3484055556	-37.6726277778	
	50	20	54.26	37	45	49.01	50.3484055556	-37.7636138889	
59	50	14	9.96	37	40	21.46	50.2361000000	-37.6726277778	99.93
	50	14	9.96	37	34	54.29	50.2361000000	-37.5817472222	
	50	20	54.26	37	34	54.29	50.3484055556	-37.5817472222	
	50	20	54.26	37	40	21.46	50.3484055556	-37.6726277778	
60	50	20	54.26	37	36	58.54	50.3484055556	-37.6162611111	99.92
	50	20	54.26	37	31	31.63	50.3484055556	-37.5254527778	
	50	27	38.56	37	31	31.63	50.4607111111	-37.5254527778	
	50	27	38.56	37	36	58.54	50.4607111111	-37.6162611111	
61	50	20	54.26	37	42	25.85	50.3484055556	-37.7071805556	99.92
	50	20	54.26	37	36	58.54	50.3484055556	-37.6162611111	
	50	27	38.56	37	36	58.54	50.4607111111	-37.6162611111	
	50	27	38.56	37	42	25.85	50.4607111111	-37.7071805556	

Block number	Longitude E			Latitude S			Longitude	Latitude	Area size sq km ^a
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Decimal	Decimal	
62	50	20	54.26	37	47	53.56	50.3484055556	-37.7982111111	99.92
	50	20	54.26	37	42	25.85	50.3484055556	-37.7071805556	
	50	27	38.56	37	42	25.85	50.4607111111	-37.7071805556	
	50	27	38.56	37	47	53.56	50.4607111111	-37.7982111111	
63	50	27	38.56	37	47	53.56	50.4607111111	-37.7982111111	99.92
	50	27	38.56	37	42	25.85	50.4607111111	-37.7071805556	
	50	34	22.86	37	42	25.85	50.5730166667	-37.7071805556	
	50	34	22.86	37	47	53.56	50.5730166667	-37.7982111111	
64	50	27	38.56	37	42	25.85	50.4607111111	-37.7071805556	99.92
	50	27	38.56	37	36	58.54	50.4607111111	-37.6162611111	
	50	34	22.86	37	36	58.54	50.5730166667	-37.6162611111	
	50	34	22.86	37	42	25.85	50.5730166667	-37.7071805556	
65	50	27	38.56	37	36	58.54	50.4607111111	-37.6162611111	99.92
	50	27	38.56	37	31	31.63	50.4607111111	-37.5254527778	
	50	34	22.86	37	31	31.63	50.5730166667	-37.5254527778	
	50	34	22.86	37	36	58.54	50.5730166667	-37.6162611111	
66	50	34	22.86	37	37	11.68	50.5730166667	-37.6199111111	99.92
	50	34	22.86	37	31	38.83	50.5730166667	-37.5274527778	
	50	40	59.96	37	31	38.83	50.6833222222	-37.5274527778	
	50	40	59.96	37	37	11.68	50.6833222222	-37.6199111111	
67	50	50	5.61	37	41	48.53	50.8348916667	-37.6968138889	99.91
	50	50	5.61	37	36	16.38	50.8348916667	-37.6045500000	
	50	56	43.95	37	36	16.38	50.9455416667	-37.6045500000	
	50	56	43.95	37	41	48.53	50.9455416667	-37.6968138889	
68	50	56	43.95	37	41	36.01	50.9455416667	-37.6933361111	99.92
	50	56	43.95	37	36	3.87	50.9455416667	-37.6010750000	
	51	3	22.3	37	36	3.87	51.0561944444	-37.6010750000	
	51	3	22.3	37	41	36.01	51.0561944444	-37.6933361111	
69	50	55	9.39	37	36	3.87	50.9192750000	-37.6010750000	99.92
	50	55	9.39	37	30	32.14	50.9192750000	-37.5089277778	
	51	1	47.74	37	30	32.14	51.0299277778	-37.5089277778	
	51	1	47.74	37	36	3.87	51.0299277778	-37.6010750000	
70	51	1	47.74	37	36	3.87	51.0299277778	-37.6010750000	99.92
	51	1	47.74	37	30	32.14	51.0299277778	-37.5089277778	
	51	8	26.09	37	30	32.14	51.1405805556	-37.5089277778	
	51	8	26.09	37	36	3.87	51.1405805556	-37.6010750000	
71	51	8	26.09	37	34	42.26	51.1405805556	-37.5784055556	99.91
	51	8	26.09	37	29	10.63	51.1405805556	-37.4862861111	
	51	15	4.43	37	29	10.63	51.2512305556	-37.4862861111	
	51	15	4.43	37	34	42.26	51.2512305556	-37.5784055556	

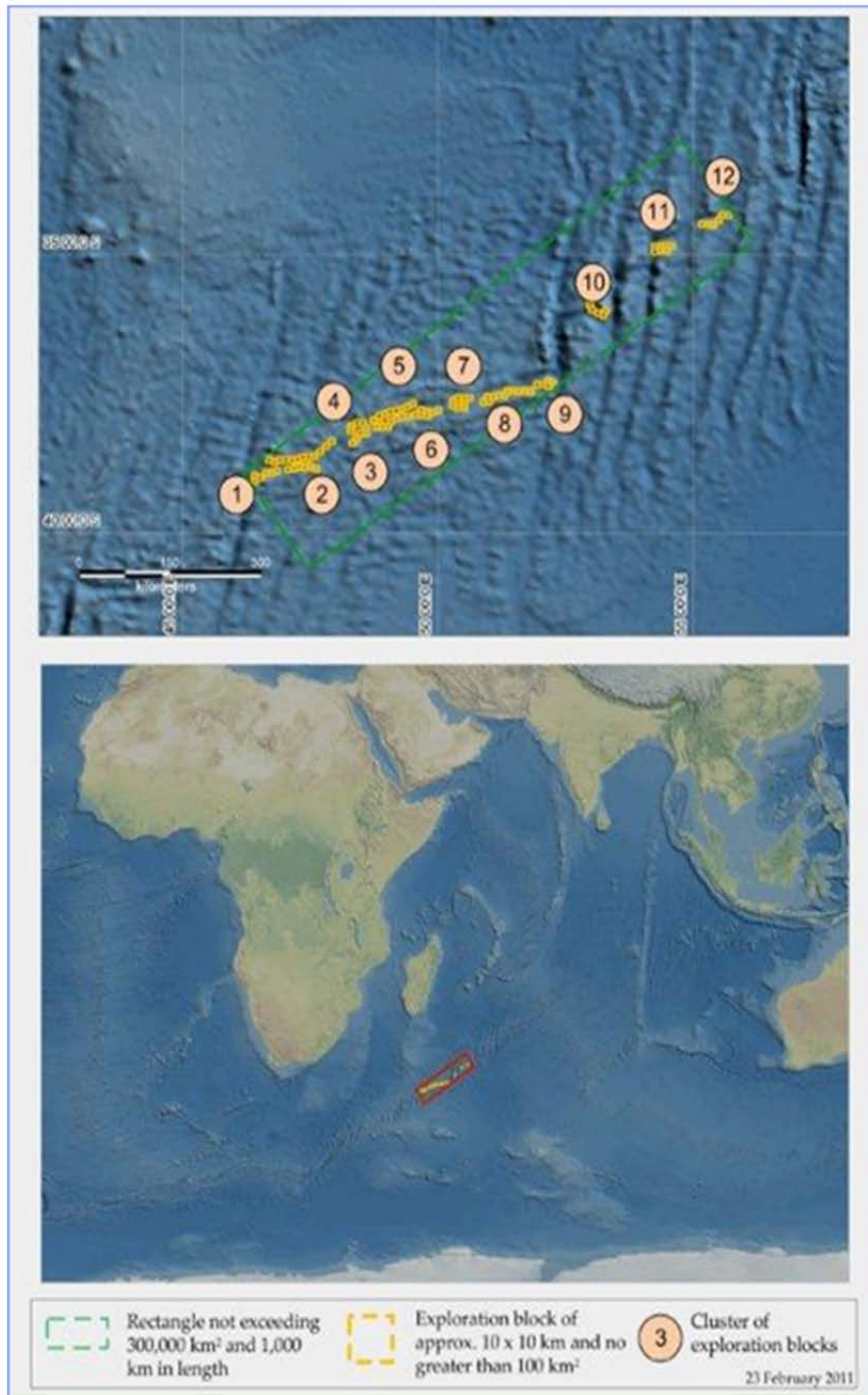
Block number	Longitude E			Latitude S			Longitude	Latitude	Area size sq km ^a
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Decimal	Decimal	
72	51	15	4.43	37	35	15	51.2512305556	-37.5875000000	99.92
	51	15	4.43	37	29	43.32	51.2512305556	-37.4953666667	
	51	21	42.78	37	29	43.32	51.3618833333	-37.4953666667	
	51	21	42.78	37	35	15	51.3618833333	-37.5875000000	
73	51	18	25.14	37	29	43.32	51.3069833333	-37.4953666667	99.92
	51	18	25.14	37	24	12.05	51.3069833333	-37.4033472222	
	51	25	3.49	37	24	12.05	51.4176361111	-37.4033472222	
	51	25	3.49	37	29	43.32	51.4176361111	-37.4953666667	
74	51	25	3.49	37	29	50.7	51.4176361111	-37.4974166667	99.92
	51	25	3.49	37	24	22.39	51.4176361111	-37.4062194444	
	51	31	45.44	37	24	22.39	51.5292888889	-37.4062194444	
	51	31	45.44	37	29	50.7	51.5292888889	-37.4974166667	
75	51	31	45.44	37	30	13.96	51.5292888889	-37.5038777778	99.92
	51	31	45.44	37	24	45.62	51.5292888889	-37.4126722222	
	51	38	27.38	37	24	45.62	51.6409388889	-37.4126722222	
	51	38	27.38	37	30	13.96	51.6409388889	-37.5038777778	
76	51	38	27.38	37	29	56.31	51.6409388889	-37.4989750000	99.93
	51	38	27.38	37	24	27.98	51.6409388889	-37.4077722222	
	51	45	9.32	37	24	27.98	51.7525888889	-37.4077722222	
	51	45	9.32	37	29	56.31	51.7525888889	-37.4989750000	
77	51	45	9.32	37	30	0.97	51.7525888889	-37.5002694444	99.93
	51	45	9.32	37	24	32.64	51.7525888889	-37.4090666667	
	51	51	51.27	37	24	32.64	51.8642416667	-37.4090666667	
	51	51	51.27	37	30	0.97	51.8642416667	-37.5002694444	
78	51	53	13.36	37	23	10.01	51.8870444444	-37.3861138889	99.93
	51	53	13.36	37	17	40.97	51.8870444444	-37.2947138889	
	51	59	53.84	37	17	40.97	51.9982888889	-37.2947138889	
	51	59	53.84	37	23	10.01	51.9982888889	-37.3861138889	
79	51	59	53.84	37	22	58.15	51.9982888889	-37.3828194444	99.94
	51	59	53.84	37	17	29.12	51.9982888889	-37.2914222222	
	52	6	34.31	37	17	29.12	52.1095305556	-37.2914222222	
	52	6	34.31	37	22	58.15	52.1095305556	-37.3828194444	
80	52	6	34.31	37	24	15.35	52.1095305556	-37.4042638889	99.94
	52	6	34.31	37	18	46.23	52.1095305556	-37.3128416667	
	52	13	14.79	37	18	46.23	52.2207750000	-37.3128416667	
	52	13	14.79	37	24	15.35	52.2207750000	-37.4042638889	
81	52	6	34.31	37	18	46.23	52.1095305556	-37.3128416667	99.94
	52	6	34.31	37	13	17.5	52.1095305556	-37.2215277778	
	52	13	14.79	37	13	17.5	52.2207750000	-37.2215277778	
	52	13	14.79	37	18	46.23	52.2207750000	-37.3128416667	

Block number	Longitude E			Latitude S			Longitude	Latitude	Area size sq km ^a
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Decimal	Decimal	
82	52	13	14.79	37	22	25.51	52.2207750000	-37.3737527778	99.95
	52	13	14.79	37	16	56.52	52.2207750000	-37.2823666667	
	52	19	55.27	37	16	56.52	52.3320194444	-37.2823666667	
	52	19	55.27	37	22	25.51	52.3320194444	-37.3737527778	
83	52	55	32.68	35	57	9.51	52.9257444444	-35.9526416667	99.99
	52	55	32.68	35	51	46.71	52.9257444444	-35.8629750000	
	53	2	13.51	35	51	46.71	53.0370861111	-35.8629750000	
	53	2	13.51	35	57	9.51	53.0370861111	-35.9526416667	
84	52	57	55.53	36	2	32.67	52.9654250000	-36.0424083333	100.00
	52	57	55.53	35	57	9.51	52.9654250000	-35.9526416667	
	53	4	36.36	35	57	9.51	53.0767666667	-35.9526416667	
	53	4	36.36	36	2	32.67	53.0767666667	-36.0424083333	
85	53	4	36.36	36	5	32.58	53.0767666667	-36.0923833333	100.00
	53	4	36.36	36	0	9.22	53.0767666667	-36.0025611111	
	53	11	17.18	36	0	9.22	53.1881055556	-36.0025611111	
	53	11	17.18	36	5	32.58	53.1881055556	-36.0923833333	
86	53	11	17.18	36	8	16.35	53.1881055556	-36.1378750000	100.02
	53	11	17.18	36	2	52.8	53.1881055556	-36.0480000000	
	53	17	58.01	36	2	52.8	53.2994472222	-36.0480000000	
	53	17	58.01	36	8	16.35	53.2994472222	-36.1378750000	
87	53	13	56.16	36	2	52.8	53.2322666667	-36.0480000000	100.02
	53	13	56.16	35	57	29.62	53.2322666667	-35.9582277778	
	53	20	36.98	35	57	29.62	53.3436055556	-35.9582277778	
	53	20	36.98	36	2	52.8	53.3436055556	-36.0480000000	
88	54	11	51.19	34	59	52.27	54.1975527778	-34.9978527778	100.07
	54	11	51.19	34	54	30.22	54.1975527778	-34.9083944444	
	54	18	28.3	34	54	30.22	54.3078611111	-34.9083944444	
	54	18	28.3	34	59	52.27	54.3078611111	-34.9978527778	
89	54	11	51.19	34	54	30.22	54.1975527778	-34.9083944444	100.07
	54	11	51.19	34	49	8.52	54.1975527778	-34.8190333333	
	54	18	28.3	34	49	8.52	54.3078611111	-34.8190333333	
	54	18	28.3	34	54	30.22	54.3078611111	-34.9083944444	
90	54	18	28.3	34	53	15.49	54.3078611111	-34.8876361111	100.06
	54	18	28.3	34	47	53.87	54.3078611111	-34.7982972222	
	54	25	5.42	34	47	53.87	54.4181722222	-34.7982972222	
	54	25	5.42	34	53	15.49	54.4181722222	-34.8876361111	
91	54	18	28.3	34	58	37.46	54.3078611111	-34.9770722222	100.06
	54	18	28.3	34	53	15.49	54.3078611111	-34.8876361111	
	54	25	5.42	34	53	15.49	54.4181722222	-34.8876361111	
	54	25	5.42	34	58	37.46	54.4181722222	-34.9770722222	

Block number	Longitude E			Latitude S			Longitude	Latitude	Area size sq km ^a
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Decimal	Decimal	
92	54	25	5.42	34	58	44.82	54.4181722222	-34.9791166667	100.05
	54	25	5.42	34	53	22.84	54.4181722222	-34.8896777778	
	54	31	42.53	34	53	22.84	54.5284805556	-34.8896777778	
	54	31	42.53	34	58	44.82	54.5284805556	-34.9791166667	
93	54	25	5.42	34	53	22.84	54.4181722222	-34.8896777778	100.05
	54	25	5.42	34	48	1.21	54.4181722222	-34.8003361111	
	54	31	42.53	34	48	1.21	54.5284805556	-34.8003361111	
	54	31	42.53	34	53	22.84	54.5284805556	-34.8896777778	
94	54	31	42.53	34	53	48.24	54.5284805556	-34.8967333333	100.04
	54	31	42.53	34	48	26.58	54.5284805556	-34.8073833333	
	54	38	19.65	34	48	26.58	54.6387916667	-34.8073833333	
	54	38	19.65	34	53	48.24	54.6387916667	-34.8967333333	
95	55	6	36.73	34	29	58.22	55.1102027778	-34.4995055556	99.99
	55	6	36.73	34	24	43.29	55.1102027778	-34.4120250000	
	55	13	20.43	34	24	43.29	55.2223416667	-34.4120250000	
	55	13	20.43	34	29	58.22	55.2223416667	-34.4995055556	
96	55	13	20.43	34	29	58.22	55.2223416667	-34.4995055556	99.98
	55	13	20.43	34	24	43.29	55.2223416667	-34.4120250000	
	55	20	4.13	34	24	43.29	55.3344805556	-34.4120250000	
	55	20	4.13	34	29	58.22	55.3344805556	-34.4995055556	
97	55	20	4.13	34	30	23.47	55.3344805556	-34.5065194444	99.97
	55	20	4.13	34	25	2.79	55.3344805556	-34.4174416667	
	55	26	40.62	34	25	2.79	55.4446166667	-34.4174416667	
	55	26	40.62	34	30	23.47	55.4446166667	-34.5065194444	
98	55	26	40.62	34	25	28.39	55.4446166667	-34.4245527778	99.96
	55	26	40.62	34	20	8.03	55.4446166667	-34.3355638889	
	55	33	17.12	34	20	8.03	55.5547555556	-34.3355638889	
	55	33	17.12	34	25	28.39	55.5547555556	-34.4245527778	
99	55	31	5.74	34	20	8.03	55.5182611111	-34.3355638889	99.96
	55	31	5.74	34	14	48	55.5182611111	-34.2466666667	
	55	37	42.24	34	14	48	55.6284000000	-34.2466666667	
	55	37	42.24	34	20	8.03	55.6284000000	-34.3355638889	
100	55	37	42.24	34	20	37.31	55.6284000000	-34.3436972222	99.95
	55	37	42.24	34	15	22.95	55.6284000000	-34.2563750000	
	55	44	25.93	34	15	22.95	55.7405361111	-34.2563750000	
	55	44	25.93	34	20	37.31	55.7405361111	-34.3436972222	

^a The geographic coordinates provided by COMRA were converted to Universal Transverse Mercator (UTM) coordinates (the recommended International Seabed Authority (ISA) standard) in order to compute the area sizes. As a result, there are minor variations in block sizes.

Indicative chart showing the general location of the area under application



ISBA/17/C/12 Report and recommendations to the Council of the International Seabed Authority relating to an application for approval of a plan of work for exploration for polymetallic sulphides by the Government of the Russian Federation

Submitted by the Legal and Technical Commission

Date: 11 July 2011

I. INTRODUCTION

1. On 24 December 2010, 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 Government of the Russian Federation. The area under application consists of 100 blocks measuring approximately 10 kilometres by 10 kilometres each which are grouped into seven clusters, each containing from 8 to 36 blocks. The clusters are not contiguous but proximate and confined within a rectangular area covering 216,622 square kilometres.

2. In accordance with regulation 22 (c) of the Regulations, on 18 January 2011, the Secretary-General notified all members of the Authority of the receipt of the application and circulated information of a general nature concerning the application. In accordance with regulation 23, the Secretary-General further informed the members of the Legal and Technical Commission, by letter dated 19 January 2011, of the receipt of that application and that the application had been placed as an item on the agenda of the Commission at its next meeting.

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 annex III, article 6, of 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 and, as applicable, 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 procedure, 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 (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, the Commission had regard to 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, in accordance with regulation 23 (10) of the Regulations.

B. Consideration of the application

5. The Commission considered the application in closed meetings on 8 July 2011.

6. Prior to commencing a detailed examination of the application, the Commission invited the applicant's representative, Sergei Efimovich Donskoi, Deputy Minister, accompanied by Mikhail Sergeev, Chief Geologist of the Polar Marine Geosurvey Expedition, and Georgy Cherkashov, Deputy Director of the VNII Okeangeologia, 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.

III. SUMMARY OF BASIC INFORMATION REGARDING THE APPLICATION

A. Identification of the applicant

7. Name of applicant: Ministry of Natural Resources and Ecology of the Russian Federation.

8. Address of applicant:

(a) Street address: Russia, 123995, Moscow, Bolshaya Gruzinskaya Street, 4/6.

(b) Postal address: Russia, 123995, Moscow, Bolshaya Gruzinskaya Street, 4/6.

(c) Telephone number: 7 499 254 48 00, 7 499 254 01 74, 7 499 254 81 55;

(d) Fax number: 7 499 254 43 10, 7 499 254 66 10, 7 499 254 33 61;

(e) E-mail address: gageel@mnr.gov.ru, tbykova@mnr.gov.ru.

9. Applicant's designated representative:

(a) Sergei Efimovich Donskoi, Deputy Minister for Natural Resources and Ecology.

(b) Street address of applicant's designated representative: as above;

(c) Postal address: as above;

(d) Telephone number: 7 499 254 03 66;

(e) Fax number: 7 499 254 43 10, 7 499 254 66 10;

(f) E-mail address: sed@mnr.gov.ru.

10. Applicant's place of registration and principal place of business/domicile: Russia, 123995, Moscow, Bolshaya Gruzinskaya Street, 4/6.

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

12. Date of deposit of instrument of ratification by the Russian Federation of the United Nations Convention on the Law of the Sea: 12 March 1997; date of the 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: 12 March 1997.

B. Area of application

13. The application area is located in the central part of the Atlantic Ocean in the axial zone of the Mid-Atlantic Ridge. It includes 100 blocks measuring approximately 10 kilometres by 10 kilometres each but not exceeding 100 square kilometres. The blocks under application are grouped into seven clusters each containing from 8 to 36 blocks. The clusters of blocks of polymetallic sulphides are not contiguous but are proximate and confined within a rectangular area covering 216,622 square kilometres. The longest side of the rectangular area is 897 kilometres. The coordinates and general location of the areas under application are shown in the annex to the present document.

C. Other information

14. Date of receipt of application: 24 December 2010.

15. Previous contracts with the Authority: the applicant has not been previously awarded any contract with the Authority.

16. Undertakings: the applicant attached a written undertaking dated 29 October 2010 and signed by the Deputy Minister, S. E. Donskoi, in compliance with regulation 15 of the Regulations.

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 for its application in accordance with regulation 21 (1) (a) of the Regulations.

IV. EXAMINATION OF INFORMATION AND TECHNICAL DATA SUBMITTED BY THE APPLICANT

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

- (a) Certificate of sponsorship issued by the applicant;
- (b) Information relating to the area under application:
 - (i) Chart of the location of the blocks;
 - (ii) A list of the coordinates of the corners of blocks under application;
- (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) Indicative plan of work for exploration;
- (f) Training programme;
- (g) Written undertakings by the applicant;
- (h) Document designating the Deputy Minister of the Ministry of Natural Resources and Ecology as the representative of the applicant and authorizing him to sign the application for approval of the plan of work for exploration.

V. CONSIDERATION OF FINANCIAL AND TECHNICAL QUALIFICATIONS OF THE APPLICANT

A. Financial capacity

20. In evaluating the financial capacity of the applicant, the Commission noted that the applicant had declared its financial capacity to carry out the proposed plan of work for exploration and to fulfil its financial obligations to the Authority. The Commission was provided with a statement dated 29 October 2010 and signed by the designated representative of the applicant, certifying that the applicant would have the necessary funds to meet the estimated minimum expenditures under the proposed plan of work and to fulfil its financial obligations.

B. Technical capacity

21. The Commission was provided with technical information in relation to the applicant's experience and skills in the field of scientific research on polymetallic sulphide deposits. The applicant further stated that specialized Russian institutes and the Russian Academy of Sciences had been conducting marine scientific studies of polymetallic sulphides in the Area since 1993. Moreover, in recent years, the applicant itself has carried out studies of the ore-bearing capacity of the axial zone of the Mid-Atlantic Ridge, including the location of the proposed application area, almost every year.

22. The Commission was provided with information related to the prevention, reduction and control of hazards and possible impact to the marine environment. This included the description of a plan for a programme for oceanographic and environmental studies at sites adjacent to the sites of pilot mining on inactive ore sites. In addition, the applicant proposed to conduct environmental studies at active sites inhabited by hydrothermal fauna. This is to ensure that the exploration activities will have minimal impact on the marine environment. It enclosed a plan of action to take necessary measures to prevent, reduce and control pollution and other hazards to the marine environment arising from the exploration activities. It also enclosed a description of a monitoring programme and proposed measures for the prevention, reduction and control of pollution and other hazards, as well as their possible impact, in the marine environment. The applicant also stated that it welcomed the participation of the Authority and the international scientific community in the development of the parameters and guidelines for the establishment of environmental baselines during the exploration phase.

VI. CONSIDERATION OF DATA AND INFORMATION SUBMITTED FOR APPROVAL OF THE PLAN OF WORK FOR EXPLORATION

23. 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 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) An undertaking to provide 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. Such studies 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 impact, 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 first five-year period.

24. The Commission was satisfied that the information presented met the requirements of the Regulations and noted that it looked forward to the submission of reports, including relevant data, by the applicant as required by the Regulations and any recommendations for guidance to be issued by the Commission in due course. The Commission also acknowledged with appreciation that, in response to questions by the Commission, the applicant's representatives had indicated their willingness to provide the Authority with access to extensive historical data sets from marine scientific research conducted by the Russian Federation over many years on the Mid-Atlantic Ridge.

VII. TRAINING PROGRAMME

25. The applicant indicated that, in accordance with regulation 29 and of annex 4, section 8, of the Regulations, the contractor will develop training programmes in cooperation with the Authority and will submit the programmes to the Authority for approval.

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 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.

27. The Commission is satisfied that none of the conditions in regulation 23 (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 (5), the Commission recommends to the Council that the plan of work for exploration for polymetallic sulphides submitted by the Government of the Russian Federation be approved.

Annex

List of coordinates and map of general location of the area under application

<i>Block number</i>	<i>Longitude</i>	<i>Latitude</i>	<i>Longitude (decimal degrees)</i>	<i>Latitude (decimal degrees)</i>	<i>Area km²</i>
1	45° 43' 22.26" W	20° 49' 24.82" N	-45.72285132	20.82356118	100
	45° 43' 23.82" W	20° 54' 50.08" N	-45.72328349	20.91391182	
	45° 49' 8.22" W	20° 49' 23.26" N	-45.81894965	20.82312901	
	45° 49' 9.98" W	20° 54' 48.52" N	-45.81943926	20.91347761	
2	45° 37' 36.30" W	20° 49' 26.18" N	-45.62675069	20.82393949	100
	45° 37' 37.65" W	20° 54' 51.45" N	-45.62712542	20.91429192	
	45° 43' 22.26" W	20° 49' 24.82" N	-45.72285132	20.82356118	
	45° 43' 23.82" W	20° 54' 50.08" N	-45.72328349	20.91391182	
3	45° 43' 20.72" W	20° 43' 59.55" N	-45.72242145	20.73320958	100
	45° 43' 22.26" W	20° 49' 24.82" N	-45.72285132	20.82356118	
	45° 49' 6.47" W	20° 43' 58.01" N	-45.81846264	20.73277945	
	45° 49' 8.22" W	20° 49' 23.26" N	-45.81894965	20.82312901	
4	45° 37' 34.96" W	20° 44' 0.91" N	-45.62637796	20.7335861	100
	45° 37' 36.30" W	20° 49' 26.18" N	-45.62675069	20.82393949	
	45° 43' 20.72" W	20° 43' 59.55" N	-45.72242145	20.73320958	
	45° 43' 22.26" W	20° 49' 24.82" N	-45.72285132	20.82356118	
5	45° 43' 19.18" W	20° 38' 34.29" N	-45.72199387	20.64285702	100
	45° 43' 20.72" W	20° 43' 59.55" N	-45.72242145	20.73320958	
	45° 49' 4.72" W	20° 38' 32.74" N	-45.81797823	20.64242893	
	45° 49' 6.47" W	20° 43' 58.01" N	-45.81846264	20.73277945	
6	45° 49' 2.99" W	20° 33' 7.48" N	-45.81749642	20.55207746	100
	45° 49' 4.72" W	20° 38' 32.74" N	-45.81797823	20.64242893	
	45° 54' 48.32" W	20° 33' 5.75" N	-45.91342167	20.55159832	
	45° 54' 50.26" W	20° 38' 31.01" N	-45.91396001	20.6419475	
7	45° 43' 17.65" W	20° 33' 9.01" N	-45.72156858	20.55250351	100
	45° 43' 19.18" W	20° 38' 34.29" N	-45.72199387	20.64285702	
	45° 49' 2.99" W	20° 33' 7.48" N	-45.81749642	20.55207746	
	45° 49' 4.72" W	20° 38' 32.74" N	-45.81797823	20.64242893	
8	45° 37' 30.98" W	20° 27' 45.07" N	-45.62527168	20.46252021	100
	45° 37' 32.30" W	20° 33' 10.36" N	-45.62563846	20.55287645	
	45° 43' 16.12" W	20° 27' 43.74" N	-45.72114557	20.46214904	
	45° 43' 17.65" W	20° 33' 9.01" N	-45.72156858	20.55250351	
9	45° 31' 45.82" W	20° 27' 46.22" N	-45.52939581	20.46283852	100
	45° 31' 46.94" W	20° 33' 11.51" N	-45.52970635	20.55319629	
	45° 37' 30.98" W	20° 27' 45.07" N	-45.62527168	20.46252021	
	45° 37' 32.30" W	20° 33' 10.36" N	-45.62563846	20.55287645	
10	45° 43' 10.11" W	20° 6' 2.60" N	-45.71947625	20.10072176	100
	45° 43' 11.60" W	20° 11' 27.89" N	-45.71989019	20.19107999	

<i>Block number</i>	<i>Longitude</i>	<i>Latitude</i>	<i>Longitude (decimal degrees)</i>	<i>Latitude (decimal degrees)</i>	<i>Area km²</i>
	45° 48' 54.45" W	20° 6' 1.10" N	-45.815126	20.10030588	
	45° 48' 56.14" W	20° 11' 26.38" N	-45.81559495	20.19066208	
11	45° 37' 25.77" W	20° 6' 3.91" N	-45.62382425	20.10108582	100
	45° 37' 27.06" W	20° 11' 29.20" N	-45.62418316	20.19144582	
	45° 43' 10.11" W	20° 6' 2.60" N	-45.71947625	20.10072176	
	45° 43' 11.60" W	20° 11' 27.89" N	-45.71989019	20.19107999	
12	45° 31' 41.41" W	20° 6' 5.03" N	-45.52817029	20.10139803	100
	45° 31' 42.51" W	20° 11' 30.33" N	-45.52847418	20.19175955	
	45° 37' 25.77" W	20° 6' 3.91" N	-45.62382425	20.10108582	
	45° 37' 27.06" W	20° 11' 29.20" N	-45.62418316	20.19144582	
13	46° 0' 21.03" W	20° 0' 32.28" N	-46.00584173	20.0089663	100
	46° 0' 23.10" W	20° 5' 57.55" N	-46.00641754	20.09931863	
	46° 6' 5.14" W	20° 0' 30.23" N	-46.10142823	20.00839773	
	46° 6' 7.41" W	20° 5' 55.49" N	-46.10205874	20.09874727	
14	45° 54' 36.91" W	20° 0' 34.14" N	-45.91025209	20.00948331	100
	45° 54' 38.78" W	20° 5' 59.42" N	-45.9107732	20.09983816	
	46° 0' 21.03" W	20° 0' 32.28" N	-46.00584173	20.0089663	
	46° 0' 23.10" W	20° 5' 57.55" N	-46.00641754	20.09931863	
15	45° 43' 10.11" W	20° 6' 2.60" N	-45.71947625	20.10072176	100
	45° 43' 8.63" W	20° 0' 37.31" N	-45.71906457	20.0103626	
	45° 48' 52.77" W	20° 0' 35.82" N	-45.8146596	20.00994874	
	45° 48' 54.45" W	20° 6' 1.10" N	-45.815126	20.10030588	
16	45° 37' 24.48" W	20° 0' 38.61" N	-45.62346729	20.01072488	100
	45° 37' 25.77" W	20° 6' 3.91" N	-45.62382425	20.10108582	
	45° 43' 10.11" W	20° 6' 2.60" N	-45.71947625	20.10072176	
	45° 43' 8.63" W	20° 0' 37.31" N	-45.71906457	20.0103626	
17	45° 31' 40.33" W	20° 0' 39.73" N	-45.52786806	20.01103557	100
	45° 31' 41.41" W	20° 6' 5.03" N	-45.52817029	20.10139803	
	45° 37' 24.48" W	20° 0' 38.61" N	-45.62346729	20.01072488	
	45° 37' 25.77" W	20° 6' 3.91" N	-45.62382425	20.10108582	
18	46° 0' 18.97" W	19° 55' 7.01" N	-46.00526906	19.91861304	100
	46° 0' 21.03" W	20° 0' 32.28" N	-46.00584173	20.0089663	
	46° 6' 2.88" W	19° 55' 4.97" N	-46.10080116	19.91804724	
	46° 6' 5.14" W	20° 0' 30.23" N	-46.10142823	20.00839773	
19	45° 54' 35.04" W	19° 55' 8.86" N	-45.90973382	19.91912752	100
	45° 54' 36.91" W	20° 0' 34.14" N	-45.91025209	20.00948331	
	46° 0' 18.97" W	19° 55' 7.01" N	-46.00526906	19.91861304	
	46° 0' 21.03" W	20° 0' 32.28" N	-46.00584173	20.0089663	
20	45° 43' 7.16" W	19° 55' 12.01" N	-45.71865513	19.92000252	100
	45° 43' 8.63" W	20° 0' 37.31" N	-45.71906457	20.0103626	
	45° 48' 51.10" W	19° 55' 10.53" N	-45.81419574	19.91959068	

<i>Block number</i>	<i>Longitude</i>	<i>Latitude</i>	<i>Longitude (decimal degrees)</i>	<i>Latitude (decimal degrees)</i>	<i>Area km²</i>
	45° 48' 52.77" W	20° 0' 35.82" N	-45.8146596	20.00994874	
21	46° 0' 16.92" W	19° 49' 41.73" N	-46.00469952	19.82825884	100
	46° 0' 18.97" W	19° 55' 7.01" N	-46.00526906	19.91861304	
	46° 6' 0.64" W	19° 49' 39.70" N	-46.10017753	19.82769582	
	46° 6' 2.88" W	19° 55' 4.97" N	-46.10080116	19.91804724	
22	45° 54' 33.19" W	19° 49' 43.57" N	-45.90921839	19.8287708	100
	45° 54' 35.04" W	19° 55' 8.86" N	-45.90973382	19.91912752	
	46° 0' 16.92" W	19° 49' 41.73" N	-46.00469952	19.82825884	
	46° 0' 18.97" W	19° 55' 7.01" N	-46.00526906	19.91861304	
23	45° 48' 49.44" W	19° 49' 45.23" N	-45.81373443	19.82923168	100
	45° 48' 51.10" W	19° 55' 10.53" N	-45.81419574	19.91959068	
	45° 54' 33.19" W	19° 49' 43.57" N	-45.90921839	19.8287708	
	45° 54' 35.04" W	19° 55' 8.86" N	-45.90973382	19.91912752	
24	45° 43' 5.69" W	19° 49' 46.71" N	-45.71824793	19.8296415	100
	45° 43' 7.16" W	19° 55' 12.01" N	-45.71865513	19.92000252	
	45° 48' 49.44" W	19° 49' 45.23" N	-45.81373443	19.82923168	
	45° 48' 51.10" W	19° 55' 10.53" N	-45.81419574	19.91959068	
25	45° 54' 31.34" W	19° 44' 18.29" N	-45.90870579	19.73841315	100
	45° 54' 33.19" W	19° 49' 43.57" N	-45.90921839	19.8287708	
	46° 0' 14.88" W	19° 44' 16.45" N	-46.00413311	19.73790371	
	46° 0' 16.92" W	19° 49' 41.73" N	-46.00469952	19.82825884	
26	45° 48' 47.79" W	19° 44' 19.94" N	-45.81327564	19.73887177	100
	45° 48' 49.44" W	19° 49' 45.23" N	-45.81373443	19.82923168	
	45° 54' 31.34" W	19° 44' 18.29" N	-45.90870579	19.73841315	
	45° 54' 33.19" W	19° 49' 43.57" N	-45.90921839	19.8287708	
27	46° 32' 31.47" W	17° 56' 42.38" N	-46.54207397	17.94510591	100
	46° 32' 34.29" W	18° 2' 7.65" N	-46.54285927	18.03545946	
	46° 38' 11.29" W	17° 56' 39.60" N	-46.63647011	17.94433355	
	46° 38' 14.29" W	18° 2' 4.86" N	-46.63730342	18.03468296	
28	46° 26' 51.62" W	17° 56' 45.00" N	-46.44767323	17.94583243	100
	46° 26' 54.28" W	18° 2' 10.28" N	-46.44841049	18.03618989	
	46° 32' 31.47" W	17° 56' 42.38" N	-46.54207397	17.94510591	
	46° 32' 34.29" W	18° 2' 7.65" N	-46.54285927	18.03545946	
29	46° 32' 28.66" W	17° 51' 17.11" N	-46.54129329	17.85475148	100
	46° 32' 31.47" W	17° 56' 42.38" N	-46.54207397	17.94510591	
	46° 38' 11.29" W	17° 56' 39.60" N	-46.63647011	17.94433355	
	46° 38' 8.31" W	17° 51' 14.34" N	-46.63564169	17.85398327	
30	46° 26' 48.99" W	17° 51' 19.71" N	-46.4469403	17.8554741	100
	46° 26' 51.62" W	17° 56' 45.00" N	-46.44767323	17.94583243	
	46° 32' 28.66" W	17° 51' 17.11" N	-46.54129329	17.85475148	
	46° 32' 31.47" W	17° 56' 42.38" N	-46.54207397	17.94510591	

<i>Block number</i>	<i>Longitude</i>	<i>Latitude</i>	<i>Longitude (decimal degrees)</i>	<i>Latitude (decimal degrees)</i>	<i>Area km²</i>
31	46° 38' 5.35" W	17° 45' 49.08" N	-46.63481814	17.76363211	100
	46° 38' 8.31" W	17° 51' 14.34" N	-46.63564169	17.85398327	
	46° 43' 44.81" W	17° 45' 46.16" N	-46.72911421	17.76282271	
	46° 43' 47.95" W	17° 51' 11.41" N	-46.7299852	17.85316948	
32	46° 26' 46.36" W	17° 45' 54.41" N	-46.44621168	17.76511491	100
	46° 26' 48.99" W	17° 51' 19.71" N	-46.4469403	17.8554741	
	46° 32' 25.86" W	17° 45' 51.83" N	-46.5405172	17.76439618	
	46° 32' 28.66" W	17° 51' 17.11" N	-46.54129329	17.85475148	
33	46° 21' 4.41" W	17° 40' 31.53" N	-46.35122473	17.67542459	100
	46° 21' 6.85" W	17° 45' 56.84" N	-46.35190185	17.76578829	
	46° 26' 43.75" W	17° 40' 29.12" N	-46.44548737	17.67475486	
	46° 26' 46.36" W	17° 45' 54.41" N	-46.44621168	17.76511491	
34	46° 21' 1.99" W	17° 35' 6.22" N	-46.35055163	17.58506004	100
	46° 21' 4.41" W	17° 40' 31.53" N	-46.35122473	17.67542459	
	46° 26' 41.16" W	17° 35' 3.82" N	-46.44476735	17.58439395	
	46° 26' 43.75" W	17° 40' 29.12" N	-46.44548737	17.67475486	
35	46° 20' 59.58" W	17° 29' 40.90" N	-46.34988254	17.49469464	100
	46° 21' 1.99" W	17° 35' 6.22" N	-46.35055163	17.58506004	
	46° 26' 38.59" W	17° 29' 38.52" N	-46.44405162	17.49403219	
	46° 26' 41.16" W	17° 35' 3.82" N	-46.44476735	17.58439395	
36	46° 26' 28.43" W	17° 7' 57.28" N	-46.44123135	17.13257669	100
	46° 26' 30.95" W	17° 13' 22.59" N	-46.44193003	17.22294183	
	46° 32' 6.76" W	17° 7' 54.79" N	-46.53521241	17.13188512	
	46° 32' 9.44" W	17° 13' 20.09" N	-46.53595662	17.22224639	
37	46° 20' 50.09" W	17° 7' 59.61" N	-46.34724604	17.13322462	100
	46° 20' 52.44" W	17° 13' 24.94" N	-46.3478992	17.22359338	
	46° 26' 28.43" W	17° 7' 57.28" N	-46.44123135	17.13257669	
	46° 26' 30.95" W	17° 13' 22.59" N	-46.44193003	17.22294183	
38	46° 26' 25.93" W	17° 2' 31.96" N	-46.4405369	17.04221072	100
	46° 26' 28.43" W	17° 7' 57.28" N	-46.44123135	17.13257669	
	46° 32' 4.10" W	17° 2' 29.48" N	-46.53447272	17.04152301	
	46° 32' 6.76" W	17° 7' 54.79" N	-46.53521241	17.13188512	
39	46° 20' 47.75" W	17° 2' 34.28" N	-46.34659685	17.04285504	100
	46° 20' 50.09" W	17° 7' 59.61" N	-46.34724604	17.13322462	
	46° 26' 25.93" W	17° 2' 31.96" N	-46.4405369	17.04221072	
	46° 26' 28.43" W	17° 7' 57.28" N	-46.44123135	17.13257669	
40	46° 26' 23.45" W	16° 57' 6.64" N	-46.43984667	16.95184392	100
	46° 26' 25.93" W	17° 2' 31.96" N	-46.4405369	17.04221072	
	46° 32' 1.46" W	16° 57' 4.18" N	-46.53373753	16.95116008	
	46° 32' 4.10" W	17° 2' 29.48" N	-46.53447272	17.04152301	
41	46° 26' 20.98" W	16° 51' 41.31" N	-46.43916067	16.8614763	100

<i>Block number</i>	<i>Longitude</i>	<i>Latitude</i>	<i>Longitude (decimal degrees)</i>	<i>Latitude (decimal degrees)</i>	<i>Area km²</i>
	46° 26' 23.45" W	16° 57' 6.64" N	-46.43984667	16.95184392	
	46° 31' 58.82" W	16° 51' 38.87" N	-46.53300683	16.86079631	
	46° 32' 1.46" W	16° 57' 4.18" N	-46.53373753	16.95116008	
42	46° 31' 56.21" W	16° 46' 13.55" N	-46.53228062	16.77043172	100
	46° 31' 58.82" W	16° 51' 38.87" N	-46.53300683	16.86079631	
	46° 37' 33.88" W	16° 46' 10.97" N	-46.62607789	16.76971292	
	46° 37' 36.65" W	16° 51' 36.26" N	-46.62684851	16.86007342	
43	46° 26' 18.52" W	16° 46' 15.99" N	-46.43847887	16.77110785	100
	46° 26' 20.98" W	16° 51' 41.31" N	-46.43916067	16.8614763	
	46° 31' 56.21" W	16° 46' 13.55" N	-46.53228062	16.77043172	
	46° 31' 58.82" W	16° 51' 38.87" N	-46.53300683	16.86079631	
44	46° 31' 53.61" W	16° 40' 48.24" N	-46.53155887	16.6800663	100
	46° 31' 56.21" W	16° 46' 13.55" N	-46.53228062	16.77043172	
	46° 37' 31.12" W	16° 40' 45.67" N	-46.62531201	16.6793516	
	46° 37' 33.88" W	16° 46' 10.97" N	-46.62607789	16.76971292	
45	46° 26' 16.08" W	16° 40' 50.66" N	-46.43780127	16.68073859	100
	46° 26' 18.52" W	16° 46' 15.99" N	-46.43847887	16.77110785	
	46° 31' 53.61" W	16° 40' 48.24" N	-46.53155887	16.6800663	
	46° 31' 56.21" W	16° 46' 13.55" N	-46.53228062	16.77043172	
46	46° 26' 13.66" W	16° 35' 25.33" N	-46.43712787	16.59036851	100
	46° 26' 16.08" W	16° 40' 50.66" N	-46.43780127	16.68073859	
	46° 31' 51.03" W	16° 35' 22.92" N	-46.5308416	16.58970007	
	46° 31' 53.61" W	16° 40' 48.24" N	-46.53155887	16.6800663	
47	46° 31' 48.46" W	16° 29' 57.60" N	-46.53012877	16.49933302	100
	46° 31' 51.03" W	16° 35' 22.92" N	-46.5308416	16.58970007	
	46° 37' 25.66" W	16° 29' 55.06" N	-46.62379446	16.4986265	
	46° 37' 28.38" W	16° 35' 20.36" N	-46.62455087	16.58898946	
48	46° 37' 17.59" W	16° 13' 39.12" N	-46.62155346	16.22753275	100
	46° 37' 20.26" W	16° 19' 4.43" N	-46.62229576	16.31789814	
	46° 42' 54.31" W	16° 13' 36.47" N	-46.71508532	16.22679727	
	46° 42' 57.13" W	16° 19' 1.77" N	-46.71587039	16.31715834	
49	46° 37' 14.94" W	16° 8' 13.80" N	-46.62081585	16.13716657	100
	46° 37' 17.59" W	16° 13' 39.12" N	-46.62155346	16.22753275	
	46° 42' 51.50" W	16° 8' 11.17" N	-46.71430521	16.13643539	
	46° 42' 54.31" W	16° 13' 36.47" N	-46.71508532	16.22679727	
50	46° 37' 12.30" W	16° 2' 48.48" N	-46.62008291	16.04679958	100
	46° 37' 14.94" W	16° 8' 13.80" N	-46.62081585	16.13716657	
	46° 42' 48.71" W	16° 2' 45.86" N	-46.71353005	16.04607272	
	46° 42' 51.50" W	16° 8' 11.17" N	-46.71430521	16.13643539	
51	46° 37' 12.30" W	16° 2' 48.48" N	-46.62008291	16.04679958	100
	46° 37' 9.68" W	15° 57' 23.15" N	-46.61935464	15.9564318	

<i>Block number</i>	<i>Longitude</i>	<i>Latitude</i>	<i>Longitude (decimal degrees)</i>	<i>Latitude (decimal degrees)</i>	<i>Area km²</i>
	46° 42' 45.94" W	15° 57' 20.55" N	-46.71275981	15.95570924	
	46° 42' 48.71" W	16° 2' 45.86" N	-46.71353005	16.04607272	
52	46° 31' 33.40" W	15° 57' 25.61" N	-46.5259448	15.95711389	100
	46° 31' 35.87" W	16° 2' 50.95" N	-46.52663111	16.04748573	
	46° 37' 12.30" W	16° 2' 48.48" N	-46.62008291	16.04679958	
	46° 37' 9.68" W	15° 57' 23.15" N	-46.61935464	15.9564318	
53	46° 37' 7.07" W	15° 51' 57.83" N	-46.61863102	15.86606323	100
	46° 37' 9.68" W	15° 57' 23.15" N	-46.61935464	15.9564318	
	46° 42' 43.18" W	15° 51' 55.24" N	-46.7119945	15.86534498	
	46° 42' 45.94" W	15° 57' 20.55" N	-46.71275981	15.95570924	
54	46° 31' 30.95" W	15° 52' 0.27" N	-46.52526288	15.86674126	100
	46° 31' 33.40" W	15° 57' 25.61" N	-46.5259448	15.95711389	
	46° 37' 7.07" W	15° 51' 57.83" N	-46.61863102	15.86606323	
	46° 37' 9.68" W	15° 57' 23.15" N	-46.61935464	15.9564318	
55	46° 37' 4.48" W	15° 46' 32.50" N	-46.61791204	15.77569388	100
	46° 37' 7.07" W	15° 51' 57.83" N	-46.61863102	15.86606323	
	46° 42' 40.44" W	15° 46' 29.93" N	-46.71123411	15.77497992	
	46° 42' 43.18" W	15° 51' 55.24" N	-46.7119945	15.86534498	
56	46° 31' 28.51" W	15° 46' 34.92" N	-46.52458534	15.77636785	100
	46° 31' 30.95" W	15° 52' 0.27" N	-46.52526288	15.86674126	
	46° 37' 4.48" W	15° 46' 32.50" N	-46.61791204	15.77569388	
	46° 37' 7.07" W	15° 51' 57.83" N	-46.61863102	15.86606323	
57	44° 50' 4.50" W	14° 58' 37.23" N	-44.83458295	14.97700737	100
	44° 50' 4.75" W	14° 53' 11.74" N	-44.83465211	14.88659493	
	44° 55' 39.32" W	14° 58' 37.40" N	-44.92758961	14.97705587	
	44° 55' 39.43" W	14° 53' 11.92" N	-44.92761989	14.88664311	
58	44° 55' 39.43" W	14° 53' 11.92" N	-44.92761989	14.88664311	100
	44° 55' 39.54" W	14° 47' 46.43" N	-44.92764996	14.79622965	
	45° 1' 14.09" W	14° 47' 46.46" N	-45.02057932	14.79624008	
	45° 1' 14.12" W	14° 53' 11.95" N	-45.02058787	14.88665361	
59	44° 50' 4.75" W	14° 53' 11.74" N	-44.83465211	14.88659493	100
	44° 50' 4.99" W	14° 47' 46.25" N	-44.8347208	14.79618177	
	44° 55' 39.43" W	14° 53' 11.92" N	-44.92761989	14.88664311	
	44° 55' 39.54" W	14° 47' 46.43" N	-44.92764996	14.79622965	
60	45° 1' 14.05" W	14° 42' 20.97" N	-45.02057082	14.70582584	100
	45° 1' 14.09" W	14° 47' 46.46" N	-45.02057932	14.79624008	
	45° 6' 48.46" W	14° 42' 20.88" N	-45.11346176	14.705799	
	45° 6' 48.63" W	14° 47' 46.37" N	-45.11350862	14.79621306	
61	44° 55' 39.54" W	14° 47' 46.43" N	-44.92764996	14.79622965	100
	44° 55' 39.65" W	14° 42' 20.94" N	-44.92767983	14.70581548	
	45° 1' 14.05" W	14° 42' 20.97" N	-45.02057082	14.70582584	

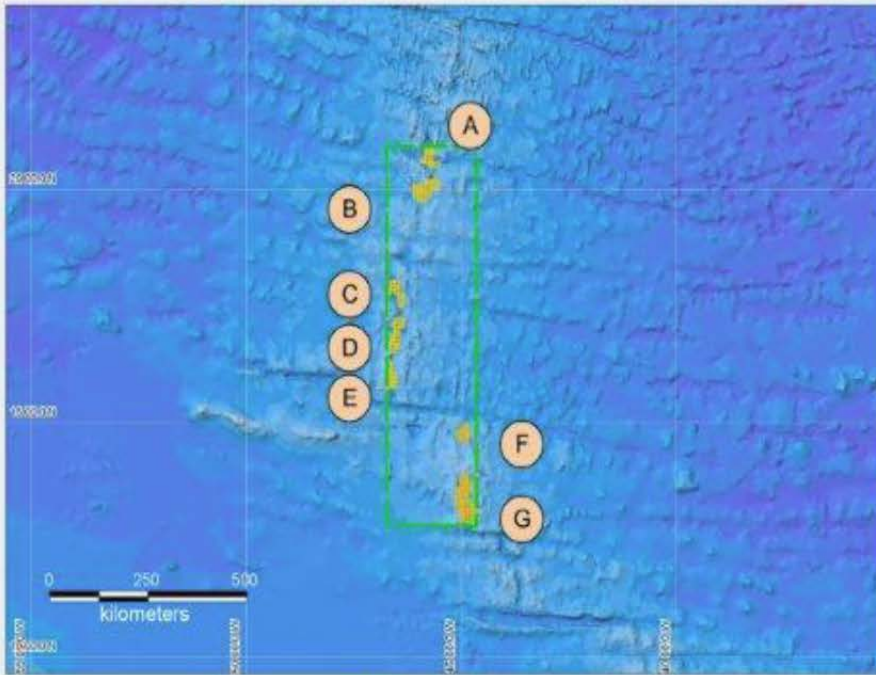
<i>Block number</i>	<i>Longitude</i>	<i>Latitude</i>	<i>Longitude (decimal degrees)</i>	<i>Latitude (decimal degrees)</i>	<i>Area km²</i>
	45° 1' 14.09" W	14° 47' 46.46" N	-45.02057932	14.79624008	
62	44° 50' 4.99" W	14° 47' 46.25" N	-44.8347208	14.79618177	100
	44° 50' 5.24" W	14° 42' 20.76" N	-44.83478903	14.7057679	
	44° 55' 39.54" W	14° 47' 46.43" N	-44.92764996	14.79622965	
	44° 55' 39.65" W	14° 42' 20.94" N	-44.92767983	14.70581548	
63	44° 55' 39.65" W	14° 42' 20.94" N	-44.92767983	14.70581548	100
	44° 55' 39.75" W	14° 36' 55.44" N	-44.92770949	14.6154006	
	45° 1' 14.02" W	14° 36' 55.48" N	-45.02056238	14.6154109	
	45° 1' 14.05" W	14° 42' 20.97" N	-45.02057082	14.70582584	
64	44° 50' 5.24" W	14° 42' 20.76" N	-44.83478903	14.7057679	100
	44° 50' 5.48" W	14° 36' 55.27" N	-44.83485679	14.61535333	
	44° 55' 39.65" W	14° 42' 20.94" N	-44.92767983	14.70581548	
	44° 55' 39.75" W	14° 36' 55.44" N	-44.92770949	14.6154006	
65	44° 55' 40.58" W	13° 53' 31.40" N	-44.92793951	13.89205672	100
	44° 55' 40.68" W	13° 48' 5.89" N	-44.92796736	13.80163569	
	45° 1' 13.76" W	13° 48' 5.92" N	-45.02048903	13.80164539	
	45° 1' 13.79" W	13° 53' 31.44" N	-45.02049696	13.89206649	
66	44° 50' 7.38" W	13° 53' 31.24" N	-44.83538227	13.89201188	100
	44° 50' 7.61" W	13° 48' 5.73" N	-44.83544589	13.80159115	
	44° 55' 40.58" W	13° 53' 31.40" N	-44.92793951	13.89205672	
	44° 55' 40.68" W	13° 48' 5.89" N	-44.92796736	13.80163569	
67	44° 55' 40.68" W	13° 48' 5.89" N	-44.92796736	13.80163569	100
	44° 55' 40.78" W	13° 42' 40.37" N	-44.92799501	13.71121399	
	45° 1' 13.73" W	13° 42' 40.41" N	-45.02048117	13.71122363	
	45° 1' 13.76" W	13° 48' 5.92" N	-45.02048903	13.80164539	
68	44° 50' 7.61" W	13° 48' 5.73" N	-44.83544589	13.80159115	100
	44° 50' 7.83" W	13° 42' 40.21" N	-44.83550905	13.71116976	
	44° 55' 40.68" W	13° 48' 5.89" N	-44.92796736	13.80163569	
	44° 55' 40.78" W	13° 42' 40.37" N	-44.92799501	13.71121399	
69	44° 50' 7.83" W	13° 42' 40.21" N	-44.83550905	13.71116976	100
	44° 50' 8.06" W	13° 37' 14.69" N	-44.83557176	13.6207477	
	44° 55' 40.78" W	13° 42' 40.37" N	-44.92799501	13.71121399	
	44° 55' 40.88" W	13° 37' 14.85" N	-44.92802246	13.62079163	
70	44° 44' 34.88" W	13° 42' 39.93" N	-44.74302355	13.71109093	100
	44° 44' 35.24" W	13° 37' 14.41" N	-44.74312151	13.62066941	
	44° 50' 7.83" W	13° 42' 40.21" N	-44.83550905	13.71116976	
	44° 50' 8.06" W	13° 37' 14.69" N	-44.83557176	13.6207477	
71	45° 1' 13.68" W	13° 31' 49.36" N	-45.02046561	13.53037812	100
	45° 1' 13.70" W	13° 37' 14.88" N	-45.02047336	13.6208012	
	45° 6' 46.37" W	13° 31' 49.27" N	-45.11288145	13.53035351	
	45° 6' 46.53" W	13° 37' 14.80" N	-45.11292421	13.62077642	




<i>Block number</i>	<i>Longitude</i>	<i>Latitude</i>	<i>Longitude (decimal degrees)</i>	<i>Latitude (decimal degrees)</i>	<i>Area km²</i>
72	44° 55' 40.88" W	13° 37' 14.85" N	-44.92802246	13.62079163	100
	44° 55' 40.98" W	13° 31' 49.33" N	-44.92804971	13.53036862	
	45° 1' 13.68" W	13° 31' 49.36" N	-45.02046561	13.53037812	
	45° 1' 13.70" W	13° 37' 14.88" N	-45.02047336	13.6208012	
73	44° 50' 8.06" W	13° 37' 14.69" N	-44.83557176	13.6207477	100
	44° 50' 8.28" W	13° 31' 49.17" N	-44.83563401	13.53032499	
	44° 55' 40.88" W	13° 37' 14.85" N	-44.92802246	13.62079163	
	44° 55' 40.98" W	13° 31' 49.33" N	-44.92804971	13.53036862	
74	44° 44' 35.24" W	13° 37' 14.41" N	-44.74312151	13.62066941	100
	44° 44' 35.59" W	13° 31' 48.89" N	-44.74321877	13.53024724	
	44° 50' 8.06" W	13° 37' 14.69" N	-44.83557176	13.6207477	
	44° 50' 8.28" W	13° 31' 49.17" N	-44.83563401	13.53032499	
75	45° 1' 13.65" W	13° 26' 23.84" N	-45.02045792	13.43995439	100
	45° 1' 13.68" W	13° 31' 49.36" N	-45.02046561	13.53037812	
	45° 6' 46.22" W	13° 26' 23.75" N	-45.11283901	13.43992994	
	45° 6' 46.37" W	13° 31' 49.27" N	-45.11288145	13.53035351	
76	44° 55' 40.98" W	13° 31' 49.33" N	-44.92804971	13.53036862	100
	44° 55' 41.08" W	13° 26' 23.80" N	-44.92807676	13.43994495	
	45° 1' 13.65" W	13° 26' 23.84" N	-45.02045792	13.43995439	
	45° 1' 13.68" W	13° 31' 49.36" N	-45.02046561	13.53037812	
77	44° 50' 8.28" W	13° 31' 49.17" N	-44.83563401	13.53032499	100
	44° 50' 8.50" W	13° 26' 23.65" N	-44.83569581	13.43990163	
	44° 55' 40.98" W	13° 31' 49.33" N	-44.92804971	13.53036862	
	44° 55' 41.08" W	13° 26' 23.80" N	-44.92807676	13.43994495	
78	45° 1' 13.62" W	13° 20' 58.31" N	-45.02045028	13.34953001	100
	45° 1' 13.65" W	13° 26' 23.84" N	-45.02045792	13.43995439	
	45° 6' 46.07" W	13° 20' 58.22" N	-45.11279688	13.34950573	
	45° 6' 46.22" W	13° 26' 23.75" N	-45.11283901	13.43992994	
79	44° 55' 41.08" W	13° 26' 23.80" N	-44.92807676	13.43994495	100
	44° 55' 41.17" W	13° 20' 58.27" N	-44.92810362	13.34952064	
	45° 1' 13.62" W	13° 20' 58.31" N	-45.02045028	13.34953001	
	45° 1' 13.65" W	13° 26' 23.84" N	-45.02045792	13.43995439	
80	44° 50' 8.50" W	13° 26' 23.65" N	-44.83569581	13.43990163	100
	44° 50' 8.73" W	13° 20' 58.12" N	-44.83575716	13.34947761	
	44° 55' 41.08" W	13° 26' 23.80" N	-44.92807676	13.43994495	
	44° 55' 41.17" W	13° 20' 58.27" N	-44.92810362	13.34952064	
81	45° 1' 13.59" W	13° 15' 32.78" N	-45.0204427	13.25910499	100
	45° 1' 13.62" W	13° 20' 58.31" N	-45.02045028	13.34953001	
	45° 6' 45.92" W	13° 15' 32.69" N	-45.11275506	13.25908088	
	45° 6' 46.07" W	13° 20' 58.22" N	-45.11279688	13.34950573	
82	44° 55' 41.17" W	13° 20' 58.27" N	-44.92810362	13.34952064	100

<i>Block number</i>	<i>Longitude</i>	<i>Latitude</i>	<i>Longitude (decimal degrees)</i>	<i>Latitude (decimal degrees)</i>	<i>Area km²</i>
	44° 55' 41.27" W	13° 15' 32.74" N	-44.92813028	13.25909568	
	45° 1' 13.59" W	13° 15' 32.78" N	-45.0204427	13.25910499	
	45° 1' 13.62" W	13° 20' 58.31" N	-45.02045028	13.34953001	
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	44° 55' 41.27" W	13° 15' 32.74" N	-44.92813028	13.25909568	
84	45° 1' 13.57" W	13° 10' 7.25" N	-45.02043517	13.16867932	100
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	44° 55' 41.36" W	13° 10' 7.21" N	-44.92815673	13.16867008	
	45° 1' 13.57" W	13° 10' 7.25" N	-45.02043517	13.16867932	
	45° 1' 13.59" W	13° 15' 32.78" N	-45.0204427	13.25910499	
86	44° 50' 8.94" W	13° 15' 32.59" N	-44.83581805	13.25905296	100
	44° 50' 9.16" W	13° 10' 7.06" N	-44.8358785	13.16862766	
	44° 55' 41.27" W	13° 15' 32.74" N	-44.92813028	13.25909568	
	44° 55' 41.36" W	13° 10' 7.21" N	-44.92815673	13.16867008	
87	44° 44' 36.62" W	13° 15' 32.32" N	-44.74350628	13.25897682	100
	44° 44' 36.96" W	13° 10' 6.79" N	-44.74360071	13.16855206	
	44° 50' 8.94" W	13° 15' 32.59" N	-44.83581805	13.25905296	
	44° 50' 9.16" W	13° 10' 7.06" N	-44.8358785	13.16862766	
88	44° 39' 4.30" W	13° 15' 31.92" N	-44.65119522	13.25886727	100
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	44° 44' 36.62" W	13° 15' 32.32" N	-44.74350628	13.25897682	
	44° 44' 36.96" W	13° 10' 6.79" N	-44.74360071	13.16855206	
89	44° 55' 41.36" W	13° 10' 7.21" N	-44.92815673	13.16867008	100
	44° 55' 41.46" W	13° 4' 41.68" N	-44.928183	13.07824385	
	45° 1' 13.54" W	13° 4' 41.71" N	-45.0204277	13.07825302	
	45° 1' 13.57" W	13° 10' 7.25" N	-45.02043517	13.16867932	
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	44° 50' 9.38" W	13° 4' 41.53" N	-44.83593849	13.07820173	
	44° 55' 41.36" W	13° 10' 7.21" N	-44.92815673	13.16867008	
	44° 55' 41.46" W	13° 4' 41.68" N	-44.928183	13.07824385	
91	44° 44' 36.96" W	13° 10' 6.79" N	-44.74360071	13.16855206	100
	44° 44' 37.30" W	13° 4' 41.26" N	-44.74369444	13.07812666	
	44° 50' 9.16" W	13° 10' 7.06" N	-44.8358785	13.16862766	
	44° 50' 9.38" W	13° 4' 41.53" N	-44.83593849	13.07820173	
92	44° 39' 4.77" W	13° 10' 6.40" N	-44.65132363	13.16844329	100
	44° 39' 5.22" W	13° 4' 40.87" N	-44.65145108	13.07801866	

<i>Block number</i>	<i>Longitude</i>	<i>Latitude</i>	<i>Longitude (decimal degrees)</i>	<i>Latitude (decimal degrees)</i>	<i>Area km²</i>
	44° 44' 36.96" W	13° 10' 6.79" N	-44.74360071	13.16855206	
	44° 44' 37.30" W	13° 4' 41.26" N	-44.74369444	13.07812666	
93	44° 55' 41.46" W	13° 4' 41.68" N	-44.928183	13.07824385	100
	44° 55' 41.55" W	12° 59' 16.14" N	-44.92820906	12.98781698	
	45° 1' 13.51" W	12° 59' 16.17" N	-45.02042029	12.98782609	
	45° 1' 13.54" W	13° 4' 41.71" N	-45.0204277	13.07825302	
94	44° 50' 9.38" W	13° 4' 41.53" N	-44.83593849	13.07820173	100
	44° 50' 9.59" W	12° 59' 15.99" N	-44.83599803	12.98777516	
	44° 55' 41.46" W	13° 4' 41.68" N	-44.928183	13.07824385	
	44° 55' 41.55" W	12° 59' 16.14" N	-44.92820906	12.98781698	
95	44° 44' 37.30" W	13° 4' 41.26" N	-44.74369444	13.07812666	100
	44° 44' 37.63" W	12° 59' 15.72" N	-44.74378746	12.98770064	
	44° 50' 9.38" W	13° 4' 41.53" N	-44.83593849	13.07820173	
	44° 50' 9.59" W	12° 59' 15.99" N	-44.83599803	12.98777516	
96	44° 39' 5.22" W	13° 4' 40.87" N	-44.65145108	13.07801866	100
	44° 39' 5.68" W	12° 59' 15.34" N	-44.65157758	12.9875934	
	44° 44' 37.30" W	13° 4' 41.26" N	-44.74369444	13.07812666	
	44° 44' 37.63" W	12° 59' 15.72" N	-44.74378746	12.98770064	
97	44° 55' 41.55" W	12° 59' 16.14" N	-44.92820906	12.98781698	100
	44° 55' 41.65" W	12° 53' 50.60" N	-44.92823493	12.89738948	
	45° 1' 13.49" W	12° 53' 50.63" N	-45.02041293	12.89739853	
	45° 1' 13.51" W	12° 59' 16.17" N	-45.02042029	12.98782609	
98	44° 50' 9.59" W	12° 59' 15.99" N	-44.83599803	12.98777516	100
	44° 50' 9.81" W	12° 53' 50.45" N	-44.83605713	12.89734797	
	44° 55' 41.55" W	12° 59' 16.14" N	-44.92820906	12.98781698	
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	44° 44' 37.97" W	12° 53' 50.19" N	-44.74387978	12.89727398	
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	44° 50' 9.81" W	12° 53' 50.45" N	-44.83605713	12.89734797	
100	44° 44' 37.97" W	12° 53' 50.19" N	-44.74387978	12.89727398	100
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	44° 50' 10.02" W	12° 48' 24.91" N	-44.83611578	12.80692015	
	44° 50' 9.81" W	12° 53' 50.45" N	-44.83605713	12.89734797	

ISBA/17/C/12; Application for approval of a plan of work for exploration for polymetallic sulphides by the Government of the Russian Federation –
Indicative chart showing the general location of the area under application



-  Rectangle not exceeding 300,000 km² and 1,000 km in length
-  Exploration block of approx. 10 x 10 km and no greater than 100 km²
-  Cluster of exploration blocks

ISBA/17/C/13 Summary report of the Chair of the Legal and Technical Commission on the work of the Commission at its seventeenth session

Date: 13 July 2011

I. INTRODUCTION

1. The Legal and Technical Commission commenced its work on 4 July 2011, one week in advance of the meetings of the Council and Assembly, and met until 13 July 2011. The Commission held 15 meetings.

2. The following members of the Commission participated in the meetings during the seventeenth session: Frida Armas-Pfirter, David Billett, Eusebio Lopera Caballero, Miguel dos Santos Alberto Chissano, Laleta Davis-Mattis, Elva Escobar, Sandor Mulsow Flores, Denis Khramov, Woong-Seo Kim, Walter de Sá Leitão, Sudhakar Maruthadu, Nobuyuki Okamoto, Andrzej Przybycin, Christian Reichert and Mahmoud Samy. Following past practice, Russell Howorth also participated in the meetings of the Commission prior to his formal election by the Council on 12 July 2011 for the remainder of the term of office of Isikeli Maitoga, who had resigned from the Commission. The following members informed the Secretary-General that they would be unable to attend the session: Jean-Marie Auzende, Baïdy Diène, Kennedy Hamutenya, Said Hussein, Asif Inam, Emmanuel Kalngui, Elena Sciso, Adam Tugio and Haiqi Zhang.

3. The Commission elected David Billett as Chair and Frida Armas-Pfirter as Vice-Chair.

4. The Commission adopted its agenda (ISBA/17/LTC/1) on 4 July 2011 and considered the following matters during the seventeenth session:

- (a) Evaluation of the annual reports of contractors submitted pursuant to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area;
- (b) Information on the periodic review of implementation of plans of work for exploration for polymetallic nodules;
- (c) Review of two applications for approval of a plan of work for exploration for polymetallic nodules in the Area;
- (d) Review of two applications for approval of a plan of work for exploration for polymetallic sulphides in the Area;
- (e) A draft environmental management plan for the Clarion-Clipperton Fracture Zone;
- (f) Recommendations from the workshop on “Environmental management of deep-sea chemosynthetic ecosystems: justification of and considerations for a spatially based approach”;
- (g) Other matters.

II. ACTIVITIES OF CONTRACTORS

A. Evaluation of the annual reports of contractors submitted pursuant to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area

5. On 7, 8 and 12 July 2011, the Commission reviewed and evaluated, in closed meetings, the annual reports submitted by contractors pursuant to the Regulations on Prospecting and Exploration for Polymetallic Nodules in

the Area. To facilitate its work, the Commission was provided with a preliminary analysis of the annual reports prepared by the secretariat (ISBA/17/LTC/CRP.2). For this purpose and following its common practice, the Commission divided itself into three working groups on (a) legal and financial aspects, (b) environmental aspects and (c) technological aspects. The working groups carried out a preliminary review of the annual reports and prepared a draft evaluation for further consideration by the Commission. The report and recommendations of the Commission concerning the annual reports of the contractors are contained in document ISBA/17/LTC/8.

6. The Commission also made the following comments of a general nature:

(a) The majority of the annual reports largely followed the general format prescribed by the Commission and generally confined themselves to work carried out during the reporting year under consideration, in accordance with the suggestions made by the Commission after previous evaluations. A few reports were limited to reviewing work that had been carried out in earlier years;

Geological work

(b) Exploration work proceeded slowly during the reporting period. Some reports did not contain any details of geology, mining or metallurgy related activity;

(c) As pointed out in earlier Commission evaluations, no uniformity exists in the classification of nodules based on morphology, shape or size. A standard needs to be evolved at the earliest opportunity;

Mining tests and proposed mining technology

(d) 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

(e) The environmental work reported by contractors in 2010 is generally of better quality than that reported in previous years. However, there is still a lack of raw data being provided by contractors. Contractors are strongly requested to provide raw data in digital format for inclusion in the database of the International Seabed Authority;

Financial

(f) Not all contractors provided a breakdown of expenditure, as recommended by the Commission (see ISBA/15/LTC/7). Such a breakdown is requested so that the Authority can conduct an evaluation of the reported expenditure and facilitate comparisons between the different contractors;

(g) The Commission recommends that the Secretary-General of the Authority request sponsoring States to indicate who is the correct authority for certification of financial statements;

Other matters

(h) 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, thereby generating analysis on market trends, metal values, investments required and expected returns.

B. Information on the periodic review of implementation of plans of work for exploration for polymetallic nodules

7. The Commission was provided with a note on the procedure for the periodic review of the implementation of the plan of work by each contractor and noted that this review would be undertaken jointly by the Secretary-General and each contractor in the coming months. To facilitate its work, the Commission was also provided with an analysis of reported expenditure by the contractors and a summary of environmental work carried out by contractors during the past 10 years. The Commission provided comments and technical advice to assist the Secretary-General in his discussions with contractors.

8. With respect to the implementation by the contractors of their plans of work, the Commission expressed its concern over the lack of raw data associated with resource assessment and environmental baseline studies. It noted that the lack of such data was an impediment to the assessment of activities in the Area by the Authority, such as the creation of a regional environmental management plan. The recommendations of the Commission in this respect are contained in annex I to the present report.

9. With respect to financial expenditure, the Commission noted significant variations in reported financial expenditure between the contractors. It also reiterated the difficulty in making any evaluation of actual and direct exploration expenditure when the contractors had not followed the recommendations for guidance on financial reporting issued by the Commission in 2009. For six contractors, the periodic review carried out in the current year was the last opportunity to adjust the programme of activities before the end of the exploration phase. Therefore, the Commission recommended that the programme of activities for the next five years for those six contractors should include an economic pre-feasibility study providing an indication of the level of returns that could be generated for any investment in the exploitation of nodules, which was the next phase of activities. The Commission also suggested that the secretariat organize a meeting with contractors in which a specific provision would be included in the agenda to include financial appraisal as a component of future reporting.

III. APPLICATIONS FOR APPROVAL OF PLANS OF WORK FOR EXPLORATION

A. Review of two applications for approval of plans of work for exploration for polymetallic nodules in reserved areas and recommendations to the Council

10. The Commission convened in closed meetings to resume its consideration of two applications for approval of plans of work for exploration for polymetallic nodules in reserved areas in the Clarion-Clipperton Zone that it had received in 2008 from Nauru Ocean Resources Incorporated (NORI), sponsored by Nauru, and Tonga Offshore Mining Limited (TOML), sponsored by Tonga.

1. *Nauru Ocean Resources Incorporated*

11. The Commission recalled that it first met to consider the application on 21, 22, 26 and 27 May 2008. As the Commission had not reached consensus with respect to a recommendation to the Council in relation to the application, it had decided to continue its consideration of the application at the next possible opportunity. The matter was placed on the agenda of the Commission for the fifteenth session. At that session, the Commission was informed that, by a letter dated 5 May 2009 addressed to the Legal Counsel of the Authority, the applicant had requested that consideration of its application be postponed in light of global economic circumstances and other concerns. At that time, the Commission took due note of the request and decided to defer further consideration of the item until further notice.

12. In a letter dated 4 May 2010 addressed to the Secretary-General of the Authority, the applicant requested that its application be reconsidered by the Commission at the earliest opportunity. On 29 April 2011, NORI

submitted to the Secretary-General updated information relating to the pending application before the Commission that reflected changes relating to ownership, corporate governance and raised capital. The applicant indicated that this updated information superseded the material contained in the application submitted in 2008.

13. The Commission convened to consider the application on 4, 5 and 6 July 2011. Prior to commencing a detailed examination of the application, the Commission invited the designated representative of the applicant, Peter Jacob, accompanied by Charles Morgan and David Heydon, to present the application. Members of the Commission then asked questions to clarify certain aspects of the application before convening in closed session to review the application in detail.

14. On 6 July 2011, the Commission decided to recommend to the Council approval of the plan of work for exploration for polymetallic nodules by NORI. The report and recommendations of the Commission to the Council are contained in document ISBA/17/C/9.

2. Tonga Offshore Mining Limited

15. The Commission recalled that it first met to consider the application by TOML on 21, 22, 26 and 27 May 2008. As the Commission had not reached consensus with respect to a recommendation to the Council in relation to the application, it had decided to continue its consideration of the application at the next possible opportunity. The matter was placed on the agenda of the Commission for the fifteenth session. At that session, the Commission was informed that, by a letter dated 5 May 2009 addressed to the Legal Counsel of the Authority, the applicant had requested that consideration of its application be postponed in light of global economic circumstances and other concerns. At that time, the Commission took due note of the request and decided to defer further consideration of the item until further notice.

16. On 28 April 2011, TOML submitted to the Secretary-General updated information relating to the pending application before the Commission. The matter was then placed on the agenda of the Commission for the seventeenth session.

17. The Commission considered the application in closed meetings on 5, 6 and 7 July 2011. The Commission took note of the updated information submitted by the applicant, as well as the written answers to questions transmitted on 23 May 2008 by the Chair of the Commission through the Secretary-General.

18. Prior to commencing a detailed examination of the application, the Commission invited the representatives of the applicant, Paul Taumoepeau, TOML Country Manager, accompanied by Aminiasi Kefu, Solicitor-General of Tonga, Rennie Vaiomounga, Ministry of Lands, Survey and Natural Resources, Michael Johnston, Vice-President of Strategic Development, Nautilus Minerals Incorporated, and Samantha Smith, Environment Manager, Nautilus Minerals Incorporated, to present 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. On 6 July 2011, the Commission decided to request the Chair of the Commission to transmit a list of questions to the applicant through the Secretary-General. A formal response to those questions was provided by the applicant on 7 July 2011.

19. On 7 July 2011, the Commission decided to recommend to the Council the approval of the plan of work for exploration for polymetallic nodules by TOML. The report and recommendations of the Commission to the Council are contained in document ISBA/17/C/10.

B. Review of two applications for approval of plans of work for exploration for polymetallic sulphides and recommendations to the Council

20. The Commission convened in closed meetings to consider two applications for the approval of plans of work for exploration for polymetallic sulphides. The applications were submitted on 7 May 2010 by China Ocean Mineral Resources Research and Development Association (COMRA) and on 24 December 2010 by the Government of the Russian Federation.

1. China Ocean Mineral Resources Research and Development Association

21. The Commission considered the application by COMRA in closed meetings on 5 and 8 July 2011. Prior to commencing a detailed examination of the application, the Commission invited the representative of the applicant, Jin Jiancai, Secretary-General of COMRA, accompanied by Li Jiabiao, Deputy Director of the Second Institute of Oceanography of the State Oceanic Administration, and Tao Chunhui, Senior Researcher of the Second Institute of Oceanography of the State Oceanic Administration, to present 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. On 6 July 2011, the Commission decided to request the Chair of the Commission to transmit a list of questions to the applicant through the Secretary-General. A formal response to those questions was provided by the applicant on 8 July 2011.

22. On 8 July 2011, the Commission decided to recommend to the Council approval of the application for exploration for polymetallic sulphides submitted by COMRA. The Commission noted that it looked forward to the submission of reports, including relevant data, as required by the Regulations and any recommendations for the guidance of contractors on the possible environmental impacts of exploration for polymetallic sulphides to be issued in due course. The report and recommendations of the Commission are contained in document ISBA/17/C/11.

2. Government of the Russian Federation

23. The Commission considered the application by the Government of the Russian Federation in closed meetings on 8 July 2011. Prior to commencing a detailed examination of the application, the Commission invited the representative of the applicant, Deputy Minister Sergei Donskoi, accompanied by Mikhail Sergeev, Chief Geologist of the Polar Marine Geosurvey Expedition, Saint Petersburg, and Georgy Cherkashov, Deputy Director of the Institute of Marine Geology, Saint Petersburg, to make a presentation. 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.

24. On 8 July 2011, the Commission decided to recommend to the Council the approval of the application for exploration for polymetallic sulphides submitted by the Government of the Russian Federation. The Commission noted that it looked forward to the submission of reports, including relevant data, as required by the Regulations and any recommendations for the guidance of contractors on the possible environmental impacts to be issued in due course. The Commission also expressed its appreciation that, in response to questions by the Commission following the presentation of the application, the representatives of the applicant had expressed their willingness to provide the Authority with access to extensive historical datasets from marine scientific research gathered over many years on the Mid-Atlantic Ridge. The report and recommendations of the Commission are contained in document ISBA/17/C/12.

IV. ENVIRONMENTAL IMPLICATIONS OF ACTIVITIES IN THE AREA

A. Recommendations for the guidance of contractors for the assessment of possible environmental impacts arising from exploration for polymetallic sulphides

25. The Commission recalled that in 2005 it had started to review draft recommendations that had been formulated based on the outcomes of the workshop held by the Authority in 2004 on “Polymetallic sulphides and cobalt-rich ferromanganese crusts deposits: establishment of environmental baselines and an associated monitoring programme during exploration”. At that time, however, the Commission had deferred consideration of the environmental recommendations for sulphides and crusts until the adoption of the regulations on prospecting and exploration for these resources.

26. The Commission requested the secretariat to prepare for the next session an updated version of the draft recommendations for consideration and adoption in 2012. The Commission noted that environmental recommendations needed to be in place before exploration activities commenced. In the case of sulphides, there was an opportunity to issue recommendations for contractors on the type and management of data prior to the beginning of the exploration. The Commission particularly noted that it was necessary to put in place without delay a protocol that contractors would be advised to follow on the collection and management of data.

B. Consideration of the draft environmental management plan for the Clarion-Clipperton Zone

27. On 11 July 2011, the Commission convened in open meetings to review the draft environmental management plan for the Clarion-Clipperton Zone (see ISBA/17/LTC/WP.1). The Commission noted that it was particularly timely to establish an environmental management plan for the Clarion-Clipperton Zone because of the increased interest in deep seabed mining in that area as shown by the applications from NORI and TOML. The Commission also noted that the draft plan had been prepared at a workshop convened by the Authority in November 2010 in which a broad range of stakeholders (representatives of contractors, several members of the Commission, representatives from international and non-governmental organizations and the scientific community) had participated. The Commission expressed the view that this was a comprehensive plan, based on the best available data, including those supplied by contractors.

28. To give effect to the precautionary approach called for by the regulations, the Commission decided to recommend a provisional environmental management plan for the Clarion-Clipperton Zone as contained in document ISBA/17/LTC/7, to be reviewed after three years. The plan includes the establishment of a network of nine areas of particular environmental interest identified by the 2010 workshop as provisional protected areas. During the three-year period, certain specific actions would be carried out by the Commission, the secretariat, contractors and their sponsoring States as identified in the environmental management plan. The Commission also decided to recommend to the Council for adoption a draft decision relating to the implementation of the environmental management plan, including a number of relevant actions (contained in annex II to the present report). Such actions would include a five-year moratorium on the allocation of such areas for contractors engaged in exploration or exploitation. The environmental management plan will be applied in a flexible manner so that it can be improved as more scientific, technical and environmental baseline and resource assessment data are supplied by the contractors and other interested bodies. Further dialogue should continue with all stakeholders to ensure complementarity with regard to the nine areas of particular environmental interest, the precise location of which may be reviewed as described in the environmental management plan.

C. Consideration of the recommendations emanating from the workshop on “Environmental management of deep-sea chemosynthetic ecosystems: justification of and considerations for a spatially based approach”

29. The Commission considered the report of the workshop on “Environmental management of deep-sea chemosynthetic ecosystems: justification of and considerations for a spatially based approach”, held in Dinard, France, from 31 May to 4 June 2010 (International Seabed Authority, Technical Study: No. 9). The Commission took note of the guidelines proposed by the workshop as an important contribution to its work. The Commission also took note of a communication received from the secretariat of InterRidge, an international project office for research on chemosynthetic ecosystems in the oceans of the World, in which concerns were raised about the management of mineral resources and the conservation of active hydrothermal vent ecosystems.

V. EXCHANGE OF VIEWS ON PRIORITY ACTIONS FOR THE COMMISSION

30. Observing that the session marked the last meeting of the current membership of the Commission, the Commission took the opportunity to share views on the anticipated future workload of the Commission and its effects on the organization of its work. Some members highlighted the need for the Commission to consider ways to improve its functioning and working practices, taking into account its mandate under the United Nations Convention on the Law of the Sea and the 1994 Agreement relating to the implementation of Part XI of the Convention. It was also suggested that the secretariat should be requested to prepare a report, including an indicative five-year work programme for the incoming Legal and Technical Commission in 2012, as this would provide the new Commission with a context and framework for its work. It was also noted that, in line with the evolutionary approach, the secretariat would need to review the resources available to it to support the work of the Commission.

31. In the light of the advisory opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea, the Commission noted that the following issues needed to be incorporated into its future workplan:

(a) The Commission noted the need to make necessary adjustments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area to bring them into line with the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area with respect to best environmental practices and the protection of biodiversity, as well as the further development of the precautionary approach. The Commission requested the secretariat to prepare for its consideration next year a list of such necessary revisions to the Nodules Regulations;

(b) The Commission noted the responsibility for sponsoring States to enact laws and regulations and to take administrative measures that are appropriate and necessary for securing compliance by persons under its jurisdiction and the guidance given by the Chamber in that respect. The Commission suggested that the Authority should be tasked, as part of its work programme and subject to resources being made available, with preparing model legislation to assist sponsoring States in fulfilling their obligations;

(c) The Commission noted that the Chamber had indicated that mechanisms should be considered to compensate for damage when neither the contractor nor the sponsoring State is responsible, and that this issue should be taken up by the Commission in due course;

(d) Implementation of monitoring programmes and provision for a staff of inspectors.

32. The Commission also recalled that the Council had requested it to consider the question of providing guidance on the implementation of Regulation 23, paragraph 7, of the Sulphides Regulations relating to monopolization of activities in the Area and that this matter should be addressed in due course.

33. In light of the substantial increase in the workload of the Commission, members of the Commission suggested that consideration should be given to holding two sessions per year in future. It was recalled that this had been the practice in the past when the Authority convened two or even three sessions per year. The

Commission noted that the practice of holding a separate meeting of the Commission several months in advance of the meetings of the Council and Assembly would enable it to work more efficiently and would also mean that recommendations on key issues could be circulated to member States well in advance. The second meeting of the Commission would commence one week in advance of the session of the Authority as was currently the case. The work of the Commission was fundamental to the substantive work of the Authority and the Commission recommended that all meetings of the Commission should be fully serviced and funded as part of the regular conference servicing requirements of the Authority.

34. The Commission emphasized the importance of full participation in the work of the Commission by all members of the Commission. It urged those Governments nominating members of the Commission to ensure that their members were able to attend and participate in all meetings of the Commission. It also suggested that the Secretary-General should report back to Governments on the attendance of those members whose participation in the meetings of the Commission was supported from the voluntary trust fund.

35. It was noted that the Commission also needed to be aware of the work of the United Nations General Assembly 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. Special attention needed to be given by the Authority to the issues related to the activities in the Area that could be involved in that regard.

VI. CONCLUSION

36. The Chair expressed the appreciation of the entire membership of the Commission to those members who would be ending their terms of office in 2011. The meeting was closed on 13 July 2011.

Annex I

Data management protocol

Issue

1. There is an urgent and timely need for the Authority to update its data management requirements with regard to acceptable data format(s) for submission to the secretariat of scientific and technical data collected by contractors. This applies equally to resource assessment activities as well as environmental baseline studies.

2. During the seventeenth session, the Commission was made particularly aware of the urgent and timely need for the Authority to review its data management requirements following:

- (a) Its review of the annual reports submitted by the contractors on the activities carried out in 2010;
- (b) A presentation on environmental work carried out by contractors as described in their annual reports (ISBA/17/LTC/L.3 and ISBA/17/LTC/CRP.1).

Background

3. Current scientific and technical data management arrangements between a contractor and the secretariat (principally data format rather than data type/ parameters) function around the annual reporting requirements for contractors contained in the Nodules Regulations and in the guidelines issued some 10 years ago by the Commission in relation to polymetallic nodules.¹

¹ ISBA/8/LTC/2; and *Standardization of Environmental Data and Information: Development of Guidelines — Proceedings of the International Seabed Authority's Workshop held in Kingston, Jamaica, 25-29 June 2001*.

4. While recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for polymetallic nodules in the Area (ISBA/16/LTC/7) were considered in 2010, they did not make reference to the format by which data is submitted.

5. The urgency to address this data management matter of acceptable data format(s) (including data handling, sharing and storage), therefore results from the considerable recent technological advances that have taken place in data gathering instrumentation and similarly in the information communications and technology area. Furthermore, modelling of data gathered either for resource or environmental assessments using electronic software accessing digital databases is now accepted as best practice by the international scientific and technical community. The secretariat cannot engage in this work unless data submitted to it is in an agreed electronic format.

6. The timeliness results from the fact that 2011 is generally the end of the second five-year period for seven contractors involved in nodule exploration in the Clarion-Clipperton Zone. Also, 2011 will likely see the awarding of the first contract to explore for seabed massive sulphides along the Indian Ocean Ridge, should the Council follow the recommendation of the Commission.

Commentary

7. New scientific and technical data management procedures surrounding the submission by contractors of data and information resulting from resource assessments and environmental studies need to address both:

- (a) The capturing of all historic data; and
- (b) Future fieldwork.

8. Current annual reports include reference to work (fieldwork and cruises, follow-up work to previous cruises and/or reviews of past work) that is generally well presented although the formats vary considerably. However, it is of considerable concern to the Commission that the scientific and technical data as presented in the annual reports is not in a format that is suitable for input into a centralized metadatabase management system which the secretariat is tasked to hold and maintain.

9. The problem arises since the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (annex 4, section 10) require the contractor to submit an annual report covering its activities in the exploration area and containing, as applicable, "information in sufficient detail". Moreover, as set out in Regulation 31, paragraph 5, the contractor has the obligation to report annually in writing to the Secretary-General on the implementation and results of the monitoring programme and to submit data and information for this purpose. However, this Regulation does not address the data format(s). Nor has this been addressed in recent years. For example, the 2001 workshop addressed in great detail the issues surrounding data types but not data formats. Likewise, the most recent 2010 recommendations for providing guidance on baseline data requirements for the assessment of environmental impacts focus on data types but not on data formats.

10. As a way forward, the Commission recommended two possibly cumulative courses of action for the Secretary-General. A first possibility is that contractors report verbally to the Commission, as well as through the submission of the annual report document to respond to any questions and provide further data (see ISBA/8/LTC/2, para. 99). The second manner to address this issue is for the Secretary-General to organize, as a matter of priority, a workshop on data management as an expression of a partnership of equals between the contractors and their sponsoring States, the secretariat and the Commission. These would also be a way to give effect to the obligation incumbent upon contractors, sponsoring States and other interested States or entities to cooperate with the Authority in the establishment and implementation of programmes for monitoring and evaluating the impacts of deep seabed mining on the marine environment as provided in regulation 31, paragraph 6, of the Regulations.

Annex II

Draft decision of the Council of the International Seabed Authority relating to an environmental management plan for the Clarion-Clipperton Zone

The Council of the International Seabed Authority,

Taking into account the recommendations of the Legal and Technical Commission pursuant to article 165, paragraph 2 (e), of the United Nations Convention on the Law of the Sea of 10 December 1982,¹

Recalling article 145 of the Convention, which requires that necessary measures shall be taken in accordance with the Convention with respect to activities in the Area to ensure effective protection for the marine environment from harmful effects, which may arise from such activities,

Recalling also that, pursuant to article 162 of the Convention, the Council has the power to establish the specific policies to be pursued by the Authority on any question or matter within the competence of the Authority,

Recalling further that the General Assembly of the United Nations in its resolution 63/111 called upon States and relevant international organizations at all levels to urgently consider ways to integrate and improve, on a scientific basis, including the application of precaution as set out in principle 15 of the Rio Declaration on Environment and Development,² the management of risks to vulnerable marine biodiversity within the framework of the Convention, consistent with international law and the principles of integrated ecosystem-based management,

Considering that the implementation of a comprehensive environmental management plan at the regional level is one of the measures appropriate and necessary to ensure effective protection of the marine environment of that part of the Area known as the Clarion-Clipperton Zone from harmful effects that may arise from activities in the Area and that such a plan should include provision for the establishment of a representative network of areas of particular environmental interest,

Recognizing the rights of those entities which presently hold contracts with the International Seabed Authority for exploration for polymetallic nodules in the Clarion-Clipperton Zone pursuant to the Convention, the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982³ and the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area,⁴ in particular their security of tenure over areas allocated for exploration, in accordance with their contracts,

Recognizing also that a range of human activities occurring, or potentially occurring, in areas beyond national jurisdiction in the Clarion-Clipperton Zone should be managed taking into account all relevant actors according to international law,

^{1.} United Nations, *Treaty Series*, vol. 1833, No. 31363.

^{2.} *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions Adopted by the Conference* (United Nations publication, Sales No. E.93.1.8 and corrigendum), resolution 1, annex 1.

^{3.} *Ibid.*, vol. 1838, No. 31364.

^{4.} ISBA/6/A/18, decision of the Assembly of the International Seabed Authority relating to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area.

1. *Welcomes* the recommendation by the Legal and Technical Commission relating to an environmental management plan for the Clarion-Clipperton Zone as contained in document ISBA/17/LTC/7, to be implemented over an initial three-year period, which includes the designation, on a provisional basis, of a network of nine areas of particular environmental interest, and gives effect to the precautionary approach as called for by the Regulations;
2. *Notes* that the plan will be applied in a flexible manner so that it may be improved as more scientific, technical and environmental baseline and resource assessment data are supplied by contractors and other interested bodies;
3. *Requests* the Legal and Technical Commission to report to the Council on the implementation of the environmental management plan;
4. *Encourages* further dialogue with all stakeholders to ensure complementarity with regard to the nine areas of particular environmental interest, the precise location of which may be reviewed as described in the environmental management plan;
5. *Decides* that, for a period of five years from the date of this decision or until further review by the Legal and Technical Commission or the Council, no application for approval of a plan of work for exploration or exploitation should be granted in the areas of particular environmental interest referred to in paragraph 1;
6. *Also decides* to apply this decision in accordance with the Convention, the Agreement, the Regulations and the terms of the contracts on exploration for polymetallic nodules issued in respect of the Clarion-Clipperton Zone;
7. *Encourages* the conduct of marine scientific research in the areas of particular environmental interest referred to in paragraph 1 in accordance with article 143 of the Convention, and the dissemination of the results of such research through the Authority;
8. *Requests* the Secretary-General of the International Seabed Authority to take steps to encourage the development of programmes for marine scientific research in the Clarion-Clipperton Zone, including in the areas of particular environmental interest referred to in paragraph 1, for the benefit of developing States and technologically less developed States, including through the Endowment Fund for Marine Scientific Research in the Area of the Authority;
9. *Also requests* the Secretary-General to communicate this decision as widely as possible, including to members of the Authority, observers to the Authority and relevant international organizations.

ISBA/17/C/14 Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Nauru Ocean Resources Inc.

Date: 19 July 2011
168th meeting

[ISBA/17/C/L.2]

The Council of the International Seabed Authority, acting on the recommendation of the Legal and Technical Commission,

Noting that, on 31 March 2008, a request for approval of a plan of work for exploration for polymetallic nodules was submitted to the Secretary-General in accordance with the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area¹ by Nauru Ocean Resources Inc.;

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 1982,² 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 Convention³ 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,

Reaffirming the obligations of contractors with the Authority to comply fully with the terms and conditions of the contract, including the reporting of environmental data and actual and direct exploration expenditures in accordance with the Regulations and the standard terms of contract,

Noting the Advisory Opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea of 1 February 2011,

1. *Notes* the report and recommendations of the Legal and Technical Commission on the request for approval of a plan of work for the exploration for polymetallic nodules submitted by Nauru Ocean Resources Inc. transmitted to the Council,⁴ in particular its paragraphs 22 to 24 and 37 to 40;
2. *Approves* the plan of work for exploration for polymetallic nodules submitted by Nauru Ocean Resources Inc.;
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 Nauru Ocean Resources Inc. in accordance with the Regulations.

^{1.} ISBA/6/A/18, annex.

^{2.} General Assembly resolution 48/263, annex.

^{3.} United Nations, *Treaty Series*, vol. 1833, No. 31363.

^{4.} ISBA/17/C/9.

ISBA/17/C/15 Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Tonga Offshore Mining Limited

Date: 19 July 2011
168th meeting

[ISBA/17/C/L.3]

The Council of the International Seabed Authority, acting on the recommendation of the Legal and Technical Commission,

Noting that, on 10 April 2008, a request for approval of a plan of work for exploration for polymetallic nodules was submitted to the Secretary-General in accordance with the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area¹ by Tonga Offshore Mining Limited,

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 1982,² 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 Convention³ 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,

Reaffirming the obligations of contractors with the Authority to comply fully with the terms and conditions of the contract, including the reporting of environmental data and actual and direct exploration expenditures in accordance with the Regulations and the standard terms of contract,

Noting the Advisory Opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea of 1 February 2011,

1. Notes the report and recommendations of the Legal and Technical Commission on the request for approval of a plan of work for exploration for polymetallic nodules submitted by Tonga Offshore Mining Limited transmitted to the Council,⁴ in particular its paragraphs 19 and 32 to 35;
2. *Approves* the plan of work for exploration for polymetallic nodules submitted by Tonga Mining Offshore Limited;
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 Tonga Offshore Mining Limited in accordance with the Regulations.

^{1.} ISBA/6/A/18, annex.

^{2.} General Assembly resolution 48/263, annex.

^{3.} United Nations, *Treaty Series*, vol. 1833, No. 31363.

^{4.} ISBA/17/C/10.

ISBA/17/C/16 Decision of the Council relating to an application for approval of a plan of work for exploration for polymetallic sulphides by China Ocean Mineral Resources Research and Development Association

Date: 19 July 2011
168th meeting

[ISBA/17/C/L.4]

The Council of the International Seabed Authority, acting on the recommendation of the Legal and Technical Commission,

Noting that, on 7 May 2010, China Ocean Mineral Resources Research and Development Association submitted to the Secretary-General an application for approval of a plan of work for exploration for polymetallic sulphides in accordance with the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area,¹

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 1982,² 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 Convention³ 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,

Reaffirming the obligations of contractors with the Authority to comply fully with the terms and conditions of the contract, including the reporting of environmental data and actual and direct exploration expenditures in accordance with the Regulations and the standard terms of contract,

Noting the Advisory Opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea of 1 February 2011,

1. *Notes* the report and recommendations of the Legal and Technical Commission on the request for approval of a plan of work for exploration for polymetallic sulphides submitted by China Ocean Mineral Resources Research and Development Association transmitted to the Council,⁴ in particular its paragraphs 31 to 34;
2. *Approves* the plan of work for exploration for polymetallic sulphides submitted by China Ocean Mineral Resources Research and Development Association;
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 China Ocean Mineral Resources Research and Development Association in accordance with the Regulations.

1. ISBA/16/A/12/Rev.1, annex.

2. General Assembly resolution 48/263, annex.

3. United Nations, *Treaty Series*, vol. 1833, No. 31363.

4. ISBA/17/C/11.

ISBA/17/C/17 Decision of the Council relating to an application for approval of a plan of work for exploration for polymetallic sulphides by the Government of the Russian Federation

Date: 19 July 2011
168th meeting

[ISBA/17/C/L.5]

The Council of the International Seabed Authority, acting on the recommendation of the Legal and Technical Commission,

Noting that, on 24 December 2010, the Government of the Russian Federation submitted to the Secretary-General an application for approval of a plan of work for exploration for polymetallic sulphides in accordance with the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area,¹

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 1982,² 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 Convention³ 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,

Reaffirming the obligations of contractors with the Authority to comply fully with the terms and conditions of the contract, including the reporting of environmental data and actual and direct exploration expenditures in accordance with the Regulations and the standard terms of contract,

Noting the Advisory Opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea of 1 February 2011,

1. *Notes* the report and recommendations of the Legal and Technical Commission on the request for approval of a plan of work for exploration for polymetallic sulphides submitted by the Government of the Russian Federation transmitted to the Council,⁴ in particular its paragraphs 26 to 29;
2. *Approves* the plan of work for exploration for polymetallic sulphides submitted by the Government of the Russian Federation;
3. *Requests* the Secretary-General of the Authority to issue the plan of work for exploration in the form of a contract between the Authority and the Government of the Russian Federation in accordance with the Regulations.

1. ISBA/16/A/12/Rev.1, annex.
2. General Assembly resolution 48/263, annex.
3. United Nations, *Treaty Series*, vol. 1833, No. 31363.
4. ISBA/17/C/12.

ISBA/17/C/19 Decision of the Council of the International Seabed Authority relating to an environmental management plan for the Clarion-Clipperton Zone

Date: 21 July 2011
172nd meeting

The Council of the International Seabed Authority,

Taking into account the recommendations of the Legal and Technical Commission pursuant to article 165, paragraph 2 (e), of the United Nations Convention on the Law of the Sea of 10 December 1982,¹

Recalling article 145 of the Convention, which requires that necessary measures shall be taken in accordance with the Convention with respect to activities in the Area to ensure effective protection for the marine environment from harmful effects which may arise from such activities,

Recalling also that, pursuant to article 162 of the Convention, the Council has the power to establish the specific policies to be pursued by the Authority on any question or matter within the competence of the Authority,

Recalling further that the General Assembly of the United Nations, in its resolution 63/111, reaffirmed the need for States and relevant international organizations at all levels to urgently consider ways to integrate and improve, on a scientific basis, including the precautionary approach as set out in principle 15 of the Rio Declaration on Environment and Development,² in accordance with the Convention and related agreements and instruments, the management of risks to the vulnerable marine biodiversity,

Mindful of the work of the United Nations General Assembly 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,

Considering that the implementation of a comprehensive environmental management plan at the regional level is one of the measures appropriate and necessary to ensure effective protection of the marine environment of that part of the Area known as the Clarion-Clipperton Zone from harmful effects that may arise from activities in the Area and that such a plan should include provision for the establishment of a representative network of areas of particular environmental interest,

Recognizing the rights of those entities which presently hold contracts with the International Seabed Authority for exploration for polymetallic nodules in the Clarion-Clipperton Zone pursuant to the Convention, the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982³ and the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area,⁴ in particular their security of tenure over areas allocated for exploration, in accordance with their contracts,

^{1.} United Nations, *Treaty Series*, vol. 1833, No. 31363.

^{2.} *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions Adopted by the Conference* (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex 1.ISBA/17/C/9.

^{3.} United Nations, *Treaty Series*, vol. 1836, No. 31364.

^{4.} See ISBA/6/A/18 (decision of the Assembly of the International Seabed Authority relating to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area).

1. *Notes* the recommendation by the Legal and Technical Commission relating to an environmental management plan for the Clarion-Clipperton Zone, as contained in document ISBA/17/LTC/7, which proposed the designation, on a provisional basis, of a network of areas of particular environmental interest and is designed to give effect to the precautionary approach, as called for by the Regulations;
2. *Requests* the Secretary-General to hold, at the earliest possible date before the next session of the Legal and Technical Commission, the workshop referred to in paragraph 42 of document ISBA/17/LTC/7, with particular attention to the issues indicated in its subparagraphs (a) to (d);
3. *Requests* the Legal and Technical Commission to further examine the proposal of an environment management plan on the basis of document ISBA/17/LTC/7 and the results of the workshop referred to in paragraph 2 above, and bearing in mind the discussions and proposals presented in this regard during the seventeenth session of the Authority, with a view to presenting a revised version of such a plan for adoption by the Authority at its eighteenth session;
4. *Recommends* that such a plan be drafted in a flexible and transparent manner so that it could be improved as more scientific, technical and environment baseline and resource assessment data are supplied by contractors and other interested bodies;
5. *Encourages* further dialogue with all stakeholders to ensure complementarity with regard to the proposed areas of particular environmental interest, the precise location of which may be reviewed;
6. *Decides* that, until an environment management plan is adopted, any application for the approval of a plan of work for exploration or exploitation in the areas of particular environmental interest referred to in paragraph 1 will be examined by the Legal and Technical Commission and the Council, taking into consideration the deliberations of the environmental management plan;
7. *Also decides* to apply this decision in accordance with the Convention, the Agreement, the Regulations and the terms of the contracts on exploration for polymetallic nodules issued in respect of the Clarion-Clipperton Zone;
8. *Encourages* the conduct of marine scientific research in the areas of particular environmental interest referred to in paragraph 1, in accordance with article 143 of the Convention, and the full and effective dissemination of the results of such research through the Authority;
9. *Requests* the Secretary-General of the International Seabed Authority to take steps to encourage the development of programmes for marine scientific research in the Clarion-Clipperton Zone, including in the areas of particular environmental interest referred to in paragraph 1, for the benefit of developing States and technologically less developed States, including through the Endowment Fund for Marine Scientific Research in the Area of the Authority;
10. *Also requests* the Secretary-General to communicate this decision to members of the Authority, observers to the Authority and relevant international organizations.

ISBA/17/C/20 Decision of the Council of the International Seabed Authority

Date: 21 July 2011
172nd meeting

The Council of the International Seabed Authority,

Taking note of the summary report of the Chair of the Legal and Technical Commission on the work of the Commission at its seventeenth session (ISBA/17/C/13), in particular the evaluation of the annual reports of the contractors submitted pursuant to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (Nodules Regulations) and the information on the periodic review of implementation of plans of work for exploration for polymetallic nodules,

Noting the concern of the Commission that there is still a lack of raw data associated with resource assessment and environmental baseline studies,

Emphasizing the need for recommendations for the guidance of the contractors for the assessment of possible environmental impacts arising from exploration for polymetallic sulphides in the Area,

1. *Calls upon* all contractors to provide raw data in digital format for inclusion in the database of the International Seabed Authority, in accordance with regulation 31, paragraphs 4 and 5, of the Nodules Regulations and with regulation 34 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area (Sulphides Regulations);
2. *Stresses* the importance of the role of the Commission, as provided for in regulation 21, paragraph 3 (d), of the Nodules Regulations and in regulation 23, paragraph 3 (d), of the Sulphides Regulations, to ensure that an applicant for a new plan of work for exploration has satisfactorily discharged its obligations in relation to any previous contract with the Authority, including in relation to environmental reporting, and supports the Commission in continuing to fulfil its role in this regard;
3. *Requests* 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 invites, for this purpose, 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;
4. *Requests* the Commission to analyse regulation 11.2 of the Nodules Regulations and regulation 11.2 of the Sulphides Regulations, and to report thereon to the Council for its consideration.

ISBA/17/C/21* Statement of the President of the Council of the International Seabed Authority on the work of the Council during the seventeenth session

Date: 21 July 2011

1. The seventeenth session of the International Seabed Authority was held in Kingston from 11 to 22 July 2011.

I. ADOPTION OF AGENDA

2. At its 162nd meeting, on 12 July 2011, the Council adopted its agenda for the seventeenth session, as contained in document ISBA/17/C/1.

II. ELECTION OF THE PRESIDENT AND VICE-PRESIDENTS OF THE COUNCIL

3. At its 162nd meeting, the Council elected Andrzej Przybycin (Poland) as President of the Council for 2011. Subsequently, following consultations in the regional groups, the Council elected as Vice-Presidents the representatives of Côte d'Ivoire (Group of African States), Bangladesh (Group of Asian States), Jamaica (Group of Latin American and Caribbean States) and Australia (Group of Western European and other States).

III. REPORT OF THE SECRETARY-GENERAL CONCERNING THE CREDENTIALS OF MEMBERS OF THE COUNCIL

4. At the 169th meeting of the Council, on 20 July 2011, the Secretary-General informed the Council that, as of 19 July 2011, credentials had been received from 36 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 election of the Council, Angola, on behalf of the Group of African States, would participate in the meetings of the Council in 2011 without the right to vote. In 2012 it would be the turn of the Group of Asian States to nominate a member of the Council 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 162nd meeting, on 12 July 2011, the Council elected Russell Howorth (Fiji) to fill the vacancy on the Legal and Technical Commission caused by the resignation of Isikeli Mataitoga (Fiji).

V. DRAFT REGULATIONS ON PROSPECTING AND EXPLORATION FOR COBALT-RICH FERROMANGANESE CRUSTS IN THE AREA

6. The Council resumed its consideration of outstanding issues with respect to the draft regulations on prospecting and exploration for cobalt-rich ferromanganese crusts in the Area. The Council conducted its deliberations on the basis of the text of the draft regulations contained in document ISBA/17/CRP.1/Rev.1, in which the text of the draft regulations as proposed by the Legal and Technical Commission in 2009 (ISBA/16/C/WP.2) had been aligned with the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, adopted by the Council in 2010 (ISBA/16/A/12/Rev.1). The Council also considered a proposal made by the delegation of

* Reissued for technical reasons on 25 July 2011.

China relating to the size of areas for exploration and relinquishment. At the 166th meeting, two Chinese scientists, Dr. Jiang Kaixi and Dr. He Gaowen, made presentations for the information of members of the Council on “Technical and economic evaluation of cobalt crust mining and processing” and “Determination of the size of areas for exploitation of and exploration for cobalt-rich ferromanganese crusts”.

7. The Council carried out a detailed reading of the entire text of the draft regulations. Agreement was reached on all regulations, with the exception of draft regulations 11, 12, 21 and 27. It was agreed to continue discussion of these outstanding issues at the next session in 2012 and that the adoption of the draft regulations would be the priority for the work of the Council. It was also noted that it would be necessary in due course to adopt a decision of the Council to deal with the possibility of overlapping claims, as had been done in the case of polymetallic sulphides.

VI. ADVISORY OPINION OF THE SEABED DISPUTES CHAMBER ON MATTERS RELATING TO THE RESPONSIBILITY AND LIABILITY OF SPONSORING STATES

8. On 14 July, the Secretary-General submitted to the Council a report on the advisory opinion of the Seabed Disputes Chamber, adopted on 1 February 2011 (ISBA/17/C/6-ISBA/17/LTC/5). The Council took note with appreciation of the advisory opinion, and recommended that the Assembly also take note of the opinion during the seventeenth session.

VII. CONSIDERATION AND APPROVAL OF THE RECOMMENDATIONS OF THE LEGAL AND TECHNICAL COMMISSION RELATING TO THE APPROVAL OF TWO PLANS OF WORK FOR EXPLORATION FOR POLYMETALLIC NODULES

A. Application submitted by Nauru Ocean Resources Inc.

9. At its 167th and 168th meetings, on 19 July 2011, the Council considered 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 polymetallic nodules in reserved areas by Nauru Ocean Resources Inc. (NORI), sponsored by Nauru (ISBA/17/C/9). Following deliberations, the Council approved the plan of work and requested the Secretary-General to issue the plan of work for exploration for polymetallic nodules in the form of a contract between the Authority and NORI. The decision of the Council in this respect is contained in document ISBA/17/C/14.

B. Application submitted by Tonga Offshore Mining Limited

10. Also at its 167th and 168th meetings, the Council considered 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 polymetallic nodules in reserved areas by Tonga Offshore Mining Limited (TOML), sponsored by Tonga (ISBA/17/C/10). Following deliberations, the Council approved the plan of work and requested the Secretary-General to issue the plan of work for exploration for polymetallic nodules in the form of a contract between the Authority and TOML. The delegations of Germany and the Netherlands noted that paragraph 15 of the Commission’s report left room for interpretation on the issue of sponsorship and effective control as it related to regulation 11 (2) of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area. Germany stated its view that the issue required further clarification and that, for such reason, it was unable to support the decision to approve the plan of work for exploration of TOML. The decision of the Council with respect to the application by TOML is contained in document ISBA/17/C/15.

VIII. CONSIDERATION AND APPROVAL OF THE RECOMMENDATIONS OF THE LEGAL AND TECHNICAL COMMISSION RELATING TO THE APPROVAL OF TWO PLANS OF WORK FOR EXPLORATION FOR POLYMETALLIC SULPHIDES

A. Application submitted by China Ocean Mineral Resources Research and Development Association

11. At its 168th meeting, on 19 July 2011, the Council considered 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 polymetallic sulphides by China Ocean Mineral Resources Research and Development Association (COMRA) (ISBA/17/C/11). Following deliberations, the Council approved the plan of work and requested the Secretary-General to issue the plan of work for exploration for polymetallic sulphides in the form of a contract between the Authority and COMRA. The decision of the Council in this respect is contained in document ISBA/17/C/16.

B. Application submitted by the Government of the Russian Federation

12. Also at its 168th meeting, the Council considered 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 polymetallic sulphides by the Government of the Russian Federation (ISBA/17/C/12). Following deliberations, the Council approved the plan of work and requested the Secretary-General to issue the plan of work for exploration for polymetallic sulphides in the form of a contract between the Authority and the Government of the Russian Federation. The decision of the Council in this respect is contained in document ISBA/17/C/17.

IX. REPORT OF THE LEGAL AND TECHNICAL COMMISSION

13. At its 165th meeting, on 15 July 2011, the Council received the summary report of the Chairman of the Legal and Technical Commission on the work of the Commission during the seventeenth session (ISBA/17/C/13), as presented by David Billet, Chairman of the Commission. The Council acknowledged with appreciation the work carried out by the Commission and took note of the report. In particular, the Council expressed its concern over the lack of raw data and the reporting of actual and direct exploration expenditures by the contractors. It reaffirmed the obligations of contractors to comply fully with the terms and conditions of the contract, including the reporting of environmental data and actual and direct exploration expenditures in accordance with the applicable Regulations and the standard terms of contracts. The Council also welcomed the proposal of the Commission to recommend standards and guidelines that could assist sponsoring States in adopting laws, regulations and administrative measures to fulfil their obligations and responsibilities. It endorsed the proposal of the Commission to recommend criteria to provide guidance on the implementation of regulation 23, paragraph 7, of the Sulphides Regulations relating to monopolization of activities in the Area. The Council also welcomed the proposal of the Commission to recommend revisions to Nodules Regulations in order to bring them in line with the Sulphides Regulations, in particular with respect to best environmental practices and the protection of the biodiversity of the Area.

14. Several Council members welcomed suggestions by the Commission that consideration should be given to its holding two sessions a year in view of its anticipated future workload. Some delegations suggested that it would be useful for the members of the Commission to remain for the full two-week session so that the Council could call upon their expertise if necessary. Several delegations agreed with the need for the Commission to be aware of the work of the United Nations General Assembly Ad Hoc Open-ended Informal Working Group, as noted in the Chairman's report. It was also suggested that the Chairman or another member of the Commission should attend the meetings of the Working Group.

15. The Council also considered a draft decision of the Council prepared by the Commission relating to an environmental management plan for the Clarion-Clipperton Zone (annex II to the report of the Chairman of the Commission). Following extensive deliberation, the Council adopted a decision relating to the environmental management plan, as contained in document ISBA/17/C/19.

X. REPORT OF THE FINANCE COMMITTEE

16. At its 8th meeting, on 20 July 2011, the Council received the report of the Finance Committee (ISBA/17/A/3-ISBA/17/C/3). The Council took note of the report and expressed its satisfaction to members of the Authority who had announced contributions to the Endowment Fund and to the Voluntary Trust Fund at the seventeenth session. The Council also expressed its satisfaction to the Secretary-General for the efforts on the implementation of the budget and efforts being made to achieve savings to the extent that they were not made at the expense of the quality of services. The decision of the Council with respect to the recommendations of the Finance Committee is contained in document ISBA/17/C/18. The President of the Council, on behalf of the Council, extended appreciation to Ambassador Hasjim Djalal (Indonesia), the outgoing Chairman of the Finance Committee, for his immense contribution to the establishment and work of the Authority over many years.

XI. ELECTION OF MEMBERS OF THE LEGAL AND TECHNICAL COMMISSION

17. The Council took up the issue of the election of members of the Legal and Technical Commission for the period 2012 to 2016. Recalling its decision relating to the procedures for election (ISBA/13/C/6), members of the Council expressed regret that some nominations had been received after the closing date agreed upon by the Council. Nevertheless, the Council noted that, owing to the flexibility shown by members of the Council and regional groups, the total number of candidates for election did not exceed 25, as agreed by the Council in its previous decisions. The Council therefore decided, without prejudice to future elections, and having due regard to economy and efficiency, to increase the number of members of the Commission to 25.

18. At the 172nd meeting, on 21 July 2011, the Council elected the following candidates as members of the Legal and Technical Commission: Adesina Thompson Abdegbie (Nigeria), Farhan M. S. Al-Farhan (Saudi Arabia), David Billet (United Kingdom of Great Britain and Northern Ireland), Harald Brekke (Norway), Winifred M. Broadbelt (Netherlands), Aleksander Čičerov (Slovenia), Domenico Da Empoli (Italy), Laleta Davis-Mattis (Jamaica), Kaiser De Souza (Brazil), Elva Escobar (Mexico), Russell Howorth (Fiji), Kiseong Hyeong (Republic of Korea), Élie Jarmache (France), Emmanuel Kalngui (Cameroon), Denis Gennadyevich Khramov (Russian Federation), Eusebio Lopera (Spain), Pedro Madureira (Portugal), Hussein Mubarak (Egypt), Nobuyuki Okamoto (Japan), Mario Oyarzábal (Argentina), Andrzej Przybycin (Poland), Christian Reichert (Germany), Cristian Rodrigo (Chile), Maruthadu Sudhakar (India) and Haiqi Zhang (China).

19. The Council emphasized the importance of following strictly the agreed procedures for future elections. Members of the Council also emphasized that it was imperative that members of the Commission make every effort to attend and participate in all meetings of the Commission in full.

XII. OTHER MATTERS

20. The representative of Fiji made a statement (ISBA/17/C/22), supported by other delegations, requesting the Council to take up the formulation of the regulations for mining of deep-sea minerals in the Area. The Council requested the secretariat to prepare a strategic workplan to this effect for consideration at the next session.

XIII. NEXT MEETING OF THE COUNCIL

21. The next meeting of the Council will be held in Kingston from 9 to 27 July 2012. It will be the turn of the Group of Latin American and Caribbean States to nominate a candidate for the Presidency of the Council in 2012.

LIST OF THE MAIN DOCUMENTS OF THE ASSEMBLY AND THE COUNCIL OF THE SEVENTEENTH SESSION

Referenced documents in bold format appear in this publication

ASSEMBLY

ISBA/17/A/1	Agenda of the Assembly
ISBA/17/A/2	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
ISBA/17/A/3- ISBA/17/C/3	Report of the Finance Committee
ISBA/17/A/4 and Add.1	Election of the members of the Finance Committee
ISBA/17/A/5	Decision of the Assembly relating to financial and budgetary matters
ISBA/17/A/6	Credentials of representatives to the seventeenth session of the Assembly of the International Seabed Authority
ISBA/17/A/7	Decision of the Assembly relating to the credentials of representatives to the seventeenth session of the International Seabed Authority
ISBA/17/A/8	Decision of the Assembly of the International Seabed Authority relating to the commemoration of the thirtieth anniversary of the 1982 United Nations Convention on the Law of the Sea
ISBA/17/A/9	Decision of the Assembly of the International Seabed Authority relating to the Advisory Opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea on matters relating to the Responsibilities and Obligations of States sponsoring persons and entities with respect to activities in the Area
IISBA/17/A/10	Statement of the President on the work of the Assembly at the seventeenth session
ISBA/17/A/INF.1	Request for observer status in accordance with rule 82, paragraph 1© of the rules of procedure of the Assembly on behalf of the Center for Oceans Law and Policy – University of Virginia School of Law
ISBA/17/A/INF.2	List of participants
ISBA/17/A/L.1	Provisional agenda of the Assembly
ISBA/17/A/L.2	Draft decision of the Assembly relating to financial and budgetary matters
ISBA/17/A/L.3	Draft decision of the Assembly of the International Seabed Authority relating to the commemoration of the thirtieth anniversary of the 1982 United Nations Convention on the Law of the Sea

COUNCIL

ISBA/17/C/1	Agenda of the Council
ISBA/17/C/2	Election to fill a vacancy on the Legal and Technical Commission in accordance with part XI section 4, subsection C, article 163, paragraph 7 of the United Nations Convention on the Law of the Sea
ISBA/17/C/4 and Add.1	Election of members of the Legal and Technical Commission
ISBA/17/C/5	Procedures for consideration of applications for plans of work for the exploration for polymetallic sulphides
ISBA/17/C/6 - ISBA/17/LTC/5	Advisory opinion of the Seabed Disputes Chamber on the responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area
ISBA/17/C/7	Procedure for consideration of applications for plans of work for exploration for polymetallic nodules
ISBA/17/C/8	Draft regulations on prospecting and exploration for cobalt-rich ferromanganese crusts in the Area
ISBA/17/C/9	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 Nauru Ocean Resources Inc.
ISBA/17/C/10	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 for polymetallic nodules by Tonga Offshore Mining Limited
ISBA/17/C/11*	Report and recommendations to the Council of the International Seabed Authority relating to an application for approval of a plan of work for exploration for polymetallic sulphides by the China Ocean Mineral Resources Research and Development Association
ISBA/17/C/12	Report and recommendations to the Council of the International Seabed Authority relating to an application for approval of a plan of work for exploration for polymetallic sulphides by the Government of the Russian Federation
ISBA/17/C/13	Summary report of the Chair of the Legal and Technical Commission on the work of the Commission at its seventeenth session
ISBA/17/C/14	Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Nauru Ocean Resources Inc.
ISBA/17/C/15	Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Tonga Offshore Mining Limited
ISBA/17/C/16	Decision of the Council relating to an application for approval of a plan of work for exploration for polymetallic sulphides by China Ocean Mineral Resources Research and Development Association

ISBA/17/C/17	Decision of the Council relating to an application for approval of a plan of work for exploration for polymetallic sulphides by the Government of the Russian Federation
ISBA/17/C/18	Decision of the Council relating to financial and budgetary matters
ISBA/17/C/19	Decision of the Council of the International Seabed Authority relating to an environmental management plan for the Clarion-Clipperton Zone
ISBA/17/C/20	Decision of the Council of the International Seabed Authority
ISBA/17/C/21*	Statement of the President of the Council of the International Seabed Authority on the work of the Council during the seventeenth session
ISBA/17/C/22	Statement to the Council by the delegation of Fiji
ISBA/17/C/	Suggested revision to Regulations 12 and 27 in document ISBA/16/C/WP.2 – Submitted by the Chinese delegation
ISBA/17/C/L.1	Provisional Agenda of the Council
ISBA/17/C/L.2	Draft decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Nauru Ocean Resources Inc.
ISBA/17/C/L.3	Draft decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Tonga Offshore Mining Limited
ISBA/17/C/L.4	Draft decision of the Council relating to an application for approval of a plan of work for exploration for polymetallic sulphides by China Ocean Mineral Resources Research and Development Association
ISBA/17/C/L.5	Draft decision of the Council relating to an application for approval of a plan of work for exploration for polymetallic sulphides by the Government of the Russian Federation
ISBA/17/C/L.6	Draft decision of the Council relating to financial and budgetary matters

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. These may be cited as, e.g. *Selected Decisions* 16, 1-29.

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 sixteenth session (2010). The documents and indexes are also available in electronic format on the Authority's website at www.isa.org.jm.

The consolidated index below indicates the reference in the appropriate volume of the Selected Decisions.

Title/Document number/Citation (*Selected Decisions*)

Advisory opinion on the responsibilities and obligations of Sponsoring States

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Proposal submitted by the delegation of Nauru: ISBA/16/C/6; **16**, 96-101

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Budget for 2000: ISBA/5/A/12; **5**, 38-39

Budget for 2001-2002: ISBA/6/A/15; **6**, 30-31

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Budget for 2009-2010: ISBA/14/A/8*; **14**, 24-25

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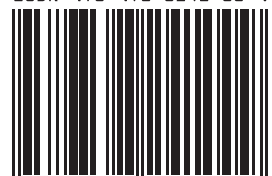
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