CALL FOR PROPOSALS 2025/OSER/003

CONSULTANCY ON MONITORING SCHEMES AND DESIGNS FOR POTENTIAL MINING OPERATIONS ON POLYMETALLIC MANGANESE NODULES, COBALT-RICH FERROMANGANESE CRUSTS AND POLYMETALLIC SULPHIDES

CONTRIBUTION TO THE AUTHORITY'S TECHNOLOGY ROAD MAP

DEADLINE FOR SUBMISSION: 20 October 2025

BACKGROUND

1. The International Seabed Authority (the Authority) is an international organization established under the United National Convention on the Law of the Sea (UNCLOS) and the Agreement relating to the Implementation of Part XI of the United National Convention on the Law of the Sea (1994 Agreement). The Authority is the organization through which States Parties to UNCLOS organize and control activities in the international seabed area, particularly with a view to administering the resources in accordance with the regime for the seabed and the ocean floor and subsoil thereof beyond the limits of national jurisdiction (the Area) established in the 1994 Agreement.
2. The Authority is required to take the measures necessary to control and organize current exploration activities, as well as future mining activities, in the Area. In so doing, the Authority has the obligation to take the necessary measures to acquire technology and scientific knowledge relating to activities in the Area and to promote and encourage the transfer to developing States of such technology and scientific knowledge relating to activities in the Area so that all States Parties benefit therefrom.
3. Following the proclamation by the United Nations General Assembly of the United Nations Decade of Ocean Science for Sustainable Development, all Member States of the Authority unanimously adopted a dedicated Action Plan for Marine Scientific Research in December 2020, which serves as the global deep-sea agenda for facilitating scientific research according to six overarching strategic research priorities. One of them specifically relates to the need to "facilitate[e] technology development for activities in the Area, including ocean observation and monitoring."
4. Building on the knowledge acquired during more than 40 years of marine exploration and the forecasted increasing demand for critical metals and minerals, particularly in the context of the implementation of the Paris Agreement and the transition to a low carbon economy, different actors have expressed increasing interest in engaging more actively into the opportunities of the blue economy which could be provided by seabed minerals in the Area.
5. A major imperative for such an industry to develop is to ensure that any environmental impacts are minimized. This requires advanced technologies and intelligent solutions to support exploration activities, observations, mineral extraction, monitoring and enforcement.
6. Each of such phases relies on the best technology available, which, in turn, favourably supports progress and innovation in deep-sea-related technology and the equipment to be used.
7. The need to ensure reliable, transparent and cost-effective systems for prediction and continuous monitoring of environmental impacts by exploration and future exploitation activities is of fundamental importance for developing such technology.
8. The Authority and its Legal and Technical Commission are currently establishing environmental thresholds that require close monitoring and high-resolution measurements. Considering the extreme conditions within which monitoring systems need to operate, emphasis is also placed on

ensuring that activities integrate technology and novel solutions to operate autonomously in remote areas while providing close to real-time data for the regulator where possible to carry out its supervisory functions, for contractors to successfully perform against the conditions set out by the legal and regulatory framework and other interested stakeholders to address these key capacity development needs and have access to all necessary information.

9. In this context, the Secretariat of the Authority is seeking a consultancy for the development of monitoring schemes and designs, individually for all three defined types of marine minerals: polymetallic manganese nodules (PMN), cobalt-rich ferromanganese crusts (CFC) and polymetallic sulphides (PMS), as a contribution to ongoing discussions for the exploitation regulations and to the development of standard and guidelines for the definition of contractors' activities and obligations.
10. The Authority is seeking a consultancy with an organization with requisite experience and expertise in (i) deep-sea technology that is relevant to seabed monitoring, including data management, (ii) the identification of measures, functions and tools to monitor the impacts on the seabed (PMN, CFC, PMS) and in the subsurface (PMS) in the area of the operation, i.e., near-, intermediate and far-field and (iii) familiarity with the equipment and tools required for the monitoring of activities on different mineral types, including definition of monitoring designs, individually for the three different marine mineral types and the technical opportunities for data recovery and storage facilities, data transfer and management.
11. Proposals in line with the scope of work in the appended Terms of Reference are to be submitted via email to rfp@isa.org.jm on or before 10 October 2025.
12. Proposals should be concise but reflect a clear methodology demonstrating the competence and expertise of the potential contractor to carry out the tasks described in the Terms of Reference and including an itemized financial proposal. The résumé of every team member who is assigned to this project should be attached to the proposal.
13. Potential contractors are to send their requests for clarifications or questions regarding this call for proposals (CfP) via email at rfp@isa.org.jm.

GENERAL INSTRUCTIONS

14. Proposals must be submitted electronically in PDF format. All documents must be signed and dated by an authorized representative of the contractor. The proposal must be submitted as a single PDF file. The proposal, including all supporting documents, shall not exceed 10 pages.
15. The currency for fees quoted must be United States dollars (USD) and should be valid for a minimum period of 60 days.
16. Submission of a proposal shall be deemed to constitute an acknowledgement by the applicant of the General Conditions of Contracts for the Services of Contractors and Individual Contractors (Annex C).
17. It is the responsibility of the potential contractor to ensure that proposals reach the Secretariat on or before the deadline.
18. The Secretariat implements a zero-tolerance policy on fraud and other proscribed practices, including corruption, unethical practices and obstruction. The Secretariat is committed to preventing, identifying and addressing all such acts and practices against the Authority and third parties involved in its activities.
19. The Secretariat requests that every potential contractor prevent and avoid conflicts of interest by disclosing clearly any involvement or possible conflict of interest in the preparation of their proposal.
20. Requests for information/clarification regarding this CfP can be sent via email to rfp@isa.org.jm.
21. This CfP is conducted in accordance with the procurement principles contained in the Financial rules of the Authority: best value-for-money, fairness, integrity and transparency, effective

international competition and the interest of the Authority.

22. Proposals received after the deadline or incomplete proposals will not be considered. Contractors included on the United Nations Security Council Sanctions List or debarred vendors are not eligible.

ANNEX A

CONSULTANCY ON MONITORING SCHEMES AND DESIGNS FOR POTENTIAL MINING OPERATIONS ON POLYMETALLIC MANGANESE NODULES, COBALT-RICH FERROMANGANESE CRUSTS AND POLYMETALLIC SULPHIDES

CONTRIBUTION TO THE AUTHORITY'S TECHNOLOGY ROAD MAP

TERMS OF REFERENCE

ORGANIZATIONAL CONTEXT

The Authority has carried out several studies and activities related to the actual state of marine technologies in the past. Based on those activities, a technology road map was defined and a series of expert scoping workshops, Charting Future Horizons: Harnessing Advanced Technologies for the Protection and Sustainable Use of the International Seabed Area, in Porto, Portugal (2024) and Kobe, Japan (2025), addressing technologies of significant importance for activities in the Area and on the seabed. The outcomes further informed capacity development needs for technology transfer.

In this context, the Secretariat of the Authority assessed the current state of technology used in deep-sea exploration, monitoring and associated research. In this process, five priority areas were identified, including (i) ocean observation and communication, (ii) monitoring, (iii) autonomy, automation and robotics, (iv) machine learning and artificial intelligence and (v) mining, energy and processing.

Ocean observation is key to modern global understanding in terms of environmental protection, the development of national and international blue economies, the security and protection of food supply, early forecast mechanisms for and monitoring of natural hazards (earthquakes, sea level rises, submarine avalanches, volcanic eruptions), geological and environmental baselines and scientific research. Activities include a wide range of technological approaches encompassing satellite data, ship-borne measurements, autonomous systems, moorings and lander systems and submarine cable systems. Ocean observation includes a complex spectrum of data acquisition and advanced subsea communication and data transfer at larger distances through the water column to surface installations or from a specific site via cable systems for data analysis.

Monitoring represents in situ ocean observation and communication and includes the online, transparent and reliable observation of all human activities in the oceans, from shipping to fisheries and marine fish farming to seabed mineral exploration and potential exploitation.

Monitoring requires data integration from multiple sources. The Authority's Technical Study No. 29 by Det Norske Veritas provided recommendations for monitoring activities. It highlighted the importance of establishing a system of remote monitoring for exploitation activities in the Area, in addition to the use of physical inspections, to record information concerning mining activities (the 1994 Agreement, Section 2).

Remote monitoring technologies already exist in other sectors such as offshore petroleum installations, submarine pipelines, submarine cables and fisheries. Technological solutions include satellite data, ship-borne measurements, autonomous systems, mooring and lander systems, submarine cable systems, data dashboards and machine learning.

Any of the formulated objectives for ocean observations and monitoring of human activities require autonomous, automated solutions and so do any activities in the deeper water column and on the seabed.

The developments largely depend on the innovation of sensor systems. Autonomous platforms are used to monitor offshore installations in the oil and gas industry, but also inform the AREA2030 initiative to map the seabed at high resolution by 2030. Automation and robotic systems are cost and time-efficient and therefore critical for any activities in the deep sea. Spinoffs exist from the oil and gas industry and can be

created for the land mining industry working in abandoned mining districts, open pits, deep and drowned underground mines, as well as remote habitats or for catastrophic events by natural hazards.

The Authority is seeking to expand its knowledge base on the Area, based on provisions in UNCLOS. The constant and reliable measurements of environmental and technical parameters against defined standards, and their timely reporting to the Authority, are regulatory requirements set by the Authority's legal framework.

The Authority's activities include concepts for the regional monitoring of areas beyond contracts of the Authority to provide further information and data to the Authority's regional environmental management plans and areas of particular environmental interest in the Clarion-Clipperton Zone, as well as internationally recognized transitional zones of specific environmental significance for the protection of global biodiversity in the Area.

OBJECTIVE

This consultancy is a contribution to ongoing discussions about the exploitation regulations and developments of standards and guidelines for the definition of contractors' activities and obligations.

Monitoring schemes and designs will also provide important information for the Authority's future inspection activities.

SCOPE OF SERVICES

Working under the supervision of the Programme Manager (Mining Geology), this consultancy will support and provide scientific and technical inputs to Office for Stewardship, Environment and Resources (OSER) and the Authority by covering three defined marine mineral types individually by

a) reviewing existing deep-sea technology that is relevant to seabed monitoring, including data management
b) identifying stressors to the marine environment and required technological data for permanent online operations control
c) identifying measures, functions and tools to monitor the impacts on the seabed (PMN, CFC, PMS) and in the subsurface (PMS), in the area of the operation, i.e., near-, intermediate and far-field
d) schematizing the monitoring set up for the three mineral types individually, in addressing the mineral occurrence specifics (e.g., large-scale, planar PMN collection with constant plume creation and moving mining and monitoring set up, in situ PMS mining towards greater depths, CFC thickness identification and detachment from hard, variable substrate)
e) identifying the required equipment and tools for the different mineral types, including quantification (e.g., a number of lander/mooring systems with suitable sensor systems for near-, intermediate, far-field plume monitoring at different water depths for PMN collection, one autonomous underwater vehicle for mobile data acquisition, recovery and communication/reporting, etc.)
f) defining monitoring designs, individually for the three different marine mineral types
g) defining data recovery and storage facilities, data transfer and management and of (close to) real-time communication and reporting schemes for online surveillance and inspection requirements (e.g., compliance with environmental thresholds) and
h) identifying readiness levels for effective technical and environmental monitoring, of trends and ongoing innovation in monitoring equipment and advancing technological solutions and the definition of knowledge gaps and missing specific technological solutions.

The contractor shall be tasked to design monitoring set-ups and schemes for all three mineral types

individually, depending on differences in occurrence and potential mining technologies, to be achieved by environmental and technical requirements and comparison with best practices in comparable marine activities (e.g., oil and gas industry).

Working closely with the OSER, the contractor shall undertake the following tasks:

(a) Review of deep-sea monitoring technologies

(i) Overview of deep-sea technologies in use for monitoring activities, e.g., for the monitoring of oil and gas production and installations, and installations for the forecast and monitoring of natural hazards

(b) Identification of environmental stressors and technological data needs

(i) Identify potential environmental stressors in need of monitoring, e.g., for the control of environmental thresholds

(ii) Identify monitoring constraints for the safe operation of mining equipment

(iii) Identify monitoring requirements for the independent control of mining path, progress, timing, mineral mobilization, mineral recovery, storage and lifting

(c) Identification of measures, functions and tools to monitor the impacts on the seabed (PMN, CFC, PMS) and in the subsurface (PMS), in the area of the operation, i.e., near-, intermediate and far-field

(i) Compilation of general monitoring equipment and its capacities to collect, record and report environmental and technical information

(d) Compilation of the monitoring set up individually for the three mineral types, in addressing the mineral occurrence specifics

(i) Identify specific characteristics for PMN, CFC and PMS occurrences and deposits, i.e., in situ versus regional distribution

(ii) Identify specific monitoring technologies required for the different mineral types

(e) Identification of required equipment and tools for the different mineral types, including quantification

(i) Define monitoring plans

(ii) Identify equipment, equipment numbers, positions, and their ground/water column coverage, relative to mineral type, occurrence and potential mining plan

(iii) Develop a technological 'black box' concept for independent data recording and data reporting

(f) Definition of monitoring designs for the three different marine mineral types

(i) Provide schemes for the monitoring of potential mining activities on PMN, CFC and PMS

(ii) Provide concepts for deployment and recovery cycles for equipment service

(g) Definition of data recovery and storage facilities, data transfer and management

(i) Develop solutions for (close to) real-time communication and reporting schemes

(ii) Support online surveillance and inspection requirements (e.g., compliance with environmental thresholds)

(h) Identification of readiness levels for effective technical and environmental monitoring

(i) Identify trends and innovations in monitoring equipment and advancing technological

solutions

(ii) Definition of knowledge gaps and missing technologies

OUTPUTS

Under the overall supervision of the Director of OSER and direct supervision of the Programme Manager (Mining Geology), the contractor/individual contractor will produce the following outputs to be completed in three months upon signature of a contract:

- Output 1
    - Inputs and review of deep-sea monitoring technologies and their potential requirements for exploitation activities on PMN, CFC and PMS deposits
- Identification of environmental stressors and technological data needs
- Output 2
    - Identification of measures, functions and tools to monitor the impacts on the seabed and in the subsurface
    - Compilation of the monitoring set up individually for the three mineral types, in addressing the mineral occurrence specifics
    - Identification of required equipment and tools for the different mineral types, including quantification
- Output 3
    - Definition of monitoring designs, data recovery and storage facilities, data transfer and management
    - Identification of readiness levels for effective technical and environmental monitoring
    - Inputs to the publication/policy brief and submission

QUALIFICATIONS

Mandatory:

- Track record in the design, construction and operation of marine robotics and autonomous vehicles
- Track record of marine monitoring installations for testing and measurement purposes
- In-depth knowledge of marine sensors, their installation, data recording and data communication
- Track record in the design and installation of monitoring equipment of the seabed, including data recovery and interpretation

Desirable:

- Knowledge of the activities of the Authority
- Knowledge regarding the occurrence of marine minerals
- Scientific understanding of the occurrence of marine habitats in abyssal plains, at seamounts and along mid-ocean ridges

SUBMISSION OF PROPOSALS

Proposals shall be submitted by email to rfp@isa.org.jm by 10 October 2025. When submitting the proposal, potential contractors shall attach:

- Annex B – Bidder general information form
- Proposal including a) competence and experience for this consultancy, b) methodology and c) itemized financial proposal
- A résumé of each team member to be directly involved in the consultancy.

SELECTION/EVALUATION

All proposals will be evaluated by a Committee based on the following:

- Profile, qualifications and experience of the contractor
- Competitiveness, reasonableness and completeness of the financial proposal

Only shortlisted proposals will be contacted for further discussion.

A procurement contract shall be awarded to the qualified proposer whose proposal, all factors considered, is the most responsive to the requirements set forth in this CfP.

MODALITIES OF WORK

The work shall be performed at the contractor's home base with scheduled virtual meetings with the Secretariat staff, as required.

To facilitate timely and accurate outcomes by the contractor, the Programme Manager (Mining Geology) of OSER will make reasonable and practical efforts to respond promptly to the contractor's queries and provide the necessary reference material as identified by the contractor, where feasible.

The contractor shall treat all data, documents and communications as strictly confidential and shall not use or disclose such information without prior written consent of the Authority.

MONITORING

The contractor will report to and receive guidance from the Programme Manager (Mining Geology), who will review and approve the deliverables/outputs following close consultation and cooperation with the relevant offices in the Secretariat.

PAYMENT

The agreed fees between the Secretariat and the selected contractor will be reflected in a contract signed by both parties.

Payments shall be made in instalments upon presentation of an invoice in USD, based on the agreed rates and subject to any agreed modifications made in accordance with this contract and duly certified by the Director of OSER.

All data, reports, maps and outputs produced under this consultancy shall be the sole and exclusive property of the Authority. The contractor shall have no ownership or rights over the materials produced.

ANNEX B

CONSULTANCY ON MONITORING SCHEMES AND DESIGNS FOR POTENTIAL MINING OPERATIONS ON POLYMETALLIC MANGANESE NODULES, COBALT-RICH FERROMANGANESE CRUSTS AND POLYMETALLIC SULPHIDES

CONTRIBUTION TO THE AUTHORITY'S TECHNOLOGY ROAD MAP

BIDDER GENERAL INFORMATION FORM

Date: (day, month, year)

Page ___ of ___

Maximum length: three pages

Full name:
Legal address:
Email address:
Nationality:
Provide details of your track record in marine robotics and the development of monitoring concepts:
Provide supporting evidence of the qualifications of your team:
Confirm your technical capacity to design monitoring schemes on the seabed, including data communication:
Are you involved in any pending legal proceedings of which the Authority should be aware? If so, please provide details.
Name of authorized officer: Signature: Date:

ANNEX C

CONSULTANCY ON MONITORING SCHEMES AND DESIGNS FOR POTENTIAL MINING OPERATIONS ON POLYMETALLIC MANGANESE NODULES, COBALT-RICH FERROMANGANESE CRUSTS AND POLYMETALLIC SULPHIDES

CONTRIBUTION TO THE AUTHORITY'S TECHNOLOGY ROAD MAP

GENERAL CONDITIONS OF CONTRACTS FOR THE SERVICES OF CONTRACTORS AND INDIVIDUAL CONTRACTORS

I. Legal status

1. The contractor or individual contractor shall have the legal status of an independent contractor vis-à-vis the International Seabed Authority. The contractor [Any representative or employee of the contractor][1] shall not be regarded, for any purposes, as being either a staff member of the Authority, under the Staff Regulations and Rules of the Authority, or an official of the Authority, for purposes of the Protocol on the Privileges and Immunities of the International Seabed Authority. Accordingly, nothing within or relating to the contract shall establish the relationship of employer and employee, or of principal and agent, between the Authority and the contractor.

[1] Where the contractor is an institutional or corporate contractor, the term "contractor" as used in the present General Conditions includes its representatives and employees.

II. Standards of conduct

2. The contractor shall neither seek nor accept instructions from any authority external to the International Seabed Authority in connection with the performance of the obligations under the contract. Should any authority external to the Authority seek to impose any instructions on the contractor regarding the contractor's performance under the contract, the contractor shall promptly notify the Authority and shall provide all reasonable assistance required by the Authority. The contractor shall not take any action in respect of the performance of the contract or otherwise related to the contractor's obligations under the contract that may adversely affect the interests of the Authority, and the contractor shall perform the obligations under the contract with the fullest regard for the interests of the Authority. The contractor warrants that the contractor has not offered and shall not offer any direct or indirect benefit arising from or related to the performance of the contract or the award thereof to any representative, official or employee of the Authority. The contractor shall comply with all applicable laws, ordinances, rules and regulations bearing upon the performance of the obligations under the contract.

3. The contractor acknowledges and agrees that any breach of any of the provisions hereof shall constitute a breach of an essential term of the contract, and, in addition to any other legal rights or remedies available to any person, shall give rise to grounds for termination of the contract. In addition, nothing herein shall limit the right of the Authority to refer any alleged breach of the foregoing standards of conduct to the relevant national authorities for appropriate action.

4. The contractor may not at any time communicate any information to any other person, Government or authority external to the Authority or known to them by reason of their association with the Authority that has not been made public, except in the course of their duties or by authorization of the Secretary-General or any designate by the Secretary-General; nor shall the contractor at any time use such information to private advantage. These obligations do not lapse upon termination of the contract with the Authority.

III. Title rights, copyrights, patents and other proprietary rights

5. Title to any equipment and supplies that may be furnished by the Authority to the contractor for the performance of any obligations under the contract shall rest with the Authority, and any such equipment shall be returned to the Authority upon completion of work under the contract or when no longer needed

by the contractor. Such equipment, when returned to the Authority, shall be in the same condition as when delivered to the contractor, subject to normal wear and tear, and the contractor shall be liable to compensate the Authority for any damage or degradation of the equipment beyond normal wear and tear.

6. The Authority shall be entitled to all intellectual property and other proprietary rights, including but not limited to patents, copyrights and trademarks, with regard to products, processes, inventions, ideas, know-how or documents and other materials that the contractor has developed for the Authority under the contract and that bear a direct relation to or are produced, prepared or collected in consequence of, or during the course of, the performance of the contract, and the contractor acknowledges and agrees that such products, documents and other materials constitute works made for hire for the Authority. However, to the extent that any such intellectual property or other proprietary rights consist of any intellectual property or other proprietary rights of the contractor: (a) that pre-existed the performance by the contractor of the obligations under the contract; or (b) that the contractor may develop or acquire, or may have developed or acquired, independently of the performance of the obligations under the contract, the Authority does not and shall not claim any ownership interest thereto, and the contractor grants to the Authority a perpetual licence to use such intellectual property or other proprietary right solely for the purposes of and in accordance with the requirements of the contract. At the request of the Authority, the contractor shall take all necessary steps, execute all necessary documents and, generally, assist in securing such proprietary rights and transferring or licensing them to the Authority in compliance with the requirements of the applicable law and of the contract. Subject to the foregoing provisions, all maps, drawings, photographs, mosaics, plans, reports, estimates, recommendations, documents and other data compiled or received by the contractor under the contract shall be the property of the Authority, shall be made available for use or inspection by the Authority at reasonable times and in reasonable places, shall be treated as confidential and shall be delivered only to authorized officials of the Authority upon completion of work under the contract.

IV. Confidential nature of documents and information

7. Information and data that are considered proprietary by either the Authority or the contractor or that are delivered or disclosed by one of them (“discloser”) to the other (“recipient”) during the course of performance of the contract, and that is designated as confidential (“information”) shall be held in confidence and shall be handled as follows: the recipient of such information shall use the same care and discretion to avoid disclosure, publication or dissemination of the discloser’s information as it uses with its own similar information that it does not wish to disclose, publish or disseminate and the recipient may use the discloser’s information solely for the purpose for which it was disclosed. The recipient may not disclose confidential information to any other party unless with the discloser’s prior written consent. Subject to and without any waiver of the privileges and immunities of the Authority and its officials, the contractor may disclose information to the extent required by law, provided that the contractor will give the Authority sufficient prior notice of a request for the disclosure of information in order to allow the Authority to have a reasonable opportunity to take protective measures or such other action as may be appropriate before any such disclosure is made. The Authority may disclose information to the extent required pursuant to 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, and the rules, regulations and procedures of the Authority. The recipient shall not be precluded from disclosing information that is obtained by the recipient from a third party without restriction, is disclosed by the discloser to a third party without any obligation of confidentiality, is previously known by the recipient or is developed at any time by the recipient completely independently of any disclosures hereunder. These obligations and restrictions of confidentiality shall be effective during the term of the contract, including any extension thereof, and, unless otherwise provided in the contract, shall remain effective following any termination of the contract.

8. Confidential information means information that:

(a) Is by its nature confidential

(b) Is designated by the Authority as confidential

(c) The contractor knows or ought to know is confidential

9. Confidential information does not include information that:

(a) Is or becomes public knowledge by means other than by breach of the contract

(b) Is in the possession of the contractor without restriction to disclosure before the date of receipt from the Authority

(c) Has been independently developed or acquired by the contractor

(d) Was in the possession of the contractor prior to the commencement date of the contract

(e) Is obtained by the contractor from a third party that is free to divulge the same

10. The Authority may at any time require the contractor to give a written undertaking, in a form required by the Authority, relating to the non-disclosure of confidential information. In the written undertaking, the contractor is required to acknowledge that the provisions of article 168 of the United Nations Convention on the Law of the Sea related to the responsibilities of the staff of the Authority apply, mutatis mutandis, to the contractor. The contractor shall promptly arrange for all such undertakings to be given.

V. Travel, statement of good health and service-incurred death, injury or illness

11. If the contractor is required by the Authority to travel beyond commuting distance from his or her usual place of residence, such travel shall be at the expense of the Authority and shall be governed by conditions equivalent to the relevant provisions of the administrative instruction of the Authority on official travel. In such cases, the travel expenses borne by the Authority shall not exceed the cost of travel by the least costly economy class regularly available or its equivalent when by air, unless a higher standard is approved in advance by, or on behalf of, the Secretary-General of the Authority.

12. Prior to the commencement of the contractor's services in any offices or premises of the Authority or before engaging in any travel required by the Authority or connected with the performance of the contract, the contractor shall submit a certificate of good health provided by a medical practitioner for himself or herself, or for the representative or employee concerned, and certify that he or she, or the representative or employee concerned, is in possession of medical or health insurance during the period of the contractor's services. The contractor shall provide such a certificate of good health and certification of the medical or health insurance that includes medical treatment as soon as practicable following the signature of the contract. The contractor warrants the accuracy of any such certificate of good health, including but not limited to confirmation that the contractor has been fully informed regarding the requirements for inoculations for the country or countries to which travel may be authorized.

13. The contractor shall be responsible for assuming all costs that may be incurred in relation to the certificate of good health and medical or health insurance.

14. In the event of the death, injury or illness of the contractor that is attributable to the performance of services on behalf of the Authority under the terms of the contract while the contractor is travelling at the Authority's expense or is performing any services under the contract in any offices or premises of the Authority, [the representative or employee of] the contractor or his or her dependants, as appropriate, shall be entitled to compensation equivalent to that provided under appendix B to the Staff Rules of the Authority.

VI. Prohibition on assignments and modifications

15. The contractor may not assign, delegate, transfer, pledge or make any other disposition of the contract, of any part thereof or of any of the rights, claims or obligations under the contract except with the prior written authorization of the Authority, and any attempt to do so shall be null and void. The terms or conditions of any supplemental undertakings, licences or other forms of agreement concerning any goods or services to be provided under the contract shall not be valid and enforceable against the Authority or in any way constitute an agreement by the Authority thereto, unless any such undertakings, licences or other

forms of agreement are the subject of a valid written undertaking by the Authority.

16. No modification or change in the contract shall be valid and enforceable against the Authority unless provided by means of a valid written amendment to the contract signed by the contractor or a duly authorized representative thereof and a duly authorized representative of the Authority.

VII. Subcontractors

17. In the event that the contractor requires the services of subcontractors to perform any obligations under the contract, the contractor shall obtain the prior written approval of the Authority for any such subcontractors. The Authority may, at its sole discretion, reject any proposed subcontractor or require such subcontractor's removal without having to give any justification therefor, and such rejection shall not entitle the contractor to claim any delays in the performance or to assert any excuses for the non-performance of any of the obligations under the contract. The contractor shall be solely responsible for all services and obligations performed by its subcontractors. The terms of any subcontract shall be subject to, and shall be construed in a manner that is fully in accordance with, all of the terms and conditions of the contract. The contractor shall not assign work to be performed under the contract to any person other than those accepted by the Authority in the form of written notification.

VIII. Use of the name, emblem or official seal of the Authority

18. The contractor shall not advertise or otherwise make public for purposes of commercial advantage or goodwill that the contractor has a contractual relationship with the Authority; nor shall the contractor in any manner whatsoever use the name, emblem or official seal of the Authority or any abbreviation of the name of the Authority in connection with its business or otherwise without the written permission of the Authority.

IX. Indemnification

19. The contractor shall indemnify, defend and hold and save harmless the Authority and its officials, agents and employees from and against all suits, proceedings, claims, demands, losses and liability of any kind or nature, including but not limited to all litigation costs and expenses, attorney's fees, settlement payments and damages, based on, arising from or relating to:

(a) Allegations or claims that the use by the Authority of any patented device, any copyrighted material or any other goods or services provided to the Authority for its use under the terms of the contract, in whole or in part, separately or in combination, constitutes an infringement of any patent, copyright, trademark or other intellectual property right of any third party

(b) Any acts or omissions of the contractor or of any subcontractor or anyone directly or indirectly employed by them in the performance of the contract that give rise to legal liability to anyone not a party to the contract, including, without limitation, claims and liability in the nature of a claim for workers' compensation

X. Insurance

20. The contractor shall pay the Authority promptly for all loss, destruction or damage to the property of the Authority caused by the contractor or of any subcontractor or anyone directly or indirectly employed by them in the performance of the contract.

21. The contractor shall be solely responsible for taking out and for maintaining adequate liability and property damage insurance required to meet any of the obligations under the contract and in respect of any tort action or tort claim arising out of the contractor's acts or omissions related to the contract, as well as for arranging, at the contractor's sole expense or at that of its representative or employee, such life, health and other forms of insurance as the contractor may consider to be appropriate to cover the period during which the contractor provides services under the contract. The contractor shall, upon request by the Authority, provide proof of such insurance.

22. The contractor acknowledges and agrees that none of the insurance arrangements that the contractor may make shall in any way be construed to limit the contractor's liability arising under or relating to the contract.

XI. Encumbrances and liens

23. The contractor shall not cause or permit any lien, attachment or other encumbrance by any person to be placed on file or to remain on file in any public office or on file with the Authority against any moneys due to the contractor or to become due for any work done or against any goods supplied or materials furnished under the contract or by reason of any other claim or demand against the contractor.

XII. Force majeure and other changes in conditions

24. In the event of and as soon as possible after the occurrence of any cause constituting force majeure, the contractor shall give notice and full particulars in writing to the Authority of such occurrence or cause if the contractor is thereby rendered unable, wholly or in part, to perform the obligations and meet the responsibilities under the contract. The contractor shall also notify the Authority of any other changes in condition or the occurrence of any event that interferes or threatens to interfere with the contractor's performance of the contract. Not more than 15 days following the provision of such notice of force majeure or other changes in condition or occurrence, the contractor shall also submit a statement to the Authority of estimated expenditures that will likely be incurred for the duration of the change in condition or the event. Upon receipt of the notice(s) required hereunder, the Authority shall take such action as it considers, at its sole discretion, to be appropriate or necessary in the circumstances, including the granting to the contractor of a reasonable extension of time in which to perform any obligations under the contract.

25. If the contractor is rendered permanently unable, wholly or in part, by reason of force majeure to perform the obligations and meet the responsibilities under the contract, the Authority shall have the right to suspend or terminate the contract on the same terms and conditions as provided for below, under "Termination", except that the period of notice shall be five days instead of any other period of notice. In any case, the Authority shall be entitled to consider the contractor permanently unable to perform the obligations under the contract in the case of the contractor's suffering any period of suspension in excess of 30 days.

26. Force majeure as used herein means any unforeseeable and irresistible act of nature, any act of war (whether declared or not), invasion, revolution, insurrection, strikes or other labour disturbances, riots, floods, storms, earthquakes, fires or any other acts of a similar nature or force, provided that such acts arise from causes beyond the control and without the fault or negligence of the contractor.

XIII. Termination

27. Either party may terminate the contract before the expiry date of the contract, in whole or in part, upon giving written notice to the other party. The period of notice shall be 5 days in the case of contracts for a total period of less than two months and 14 days in the case of contracts for a longer period. The initiation of conciliation or arbitral proceedings, as provided below, shall not be deemed to be a cause for or otherwise to be in itself a termination of the contract.

28. The Authority may, without prejudice to any other right or remedy available to it, terminate the contract forthwith in the event that: (a) the contractor is adjudged bankrupt, is liquidated or becomes insolvent, applies for a moratorium or stay on any payment or repayment obligations, or applies to be declared insolvent; (b) the contractor is granted a moratorium or a stay or is declared insolvent; (c) the contractor makes an assignment for the benefit of one or more of the contractor's creditors; (d) a receiver is appointed on account of the insolvency of the contractor; (e) the contractor offers a settlement in lieu of bankruptcy or receivership; or (f) the Authority reasonably determines that the contractor has become subject to a materially adverse change in the financial condition that threatens to endanger or otherwise substantially affect the ability of the contractor to perform any of the obligations under the contract.

29. In the event of any termination of the contract, upon receipt of notice of termination by the Authority, the contractor shall, except as may be directed by the Authority in the notice of termination or otherwise in writing: (a) take immediate steps to bring the performance of any obligations under the contract to a close in a prompt and orderly manner and, in doing so, reduce expenses to a minimum; (b) refrain from undertaking any further or additional commitments under the contract as of and following the date of receipt of such notice; (c) deliver all completed or partially completed plans, drawings, information and other property that, if the contract had been completed, would have been required to be furnished to the Authority thereunder; (d) complete performance of the work not terminated; and (e) take any other action that may be necessary, or that the Authority may direct in writing, for the protection and preservation of any property, whether tangible or intangible, related to the contract that is in the possession of the contractor and in which the Authority has or may be reasonably expected to acquire an interest.

30. A contractor may terminate the contract if: (a) the Authority is in arrears of any payment due under the contract for more than 30 days; (b) the Authority is in breach of any of the terms or conditions under the contract.

31. In the event of any termination of the contract, the Authority shall only be liable to pay the contractor compensation on a pro rata basis for no more than the actual amount of work performed to the satisfaction of the Authority in accordance with the requirements of the contract. Additional costs incurred by the Authority resulting from the termination of the contract by the contractor may be withheld from any amount otherwise due to the contractor from the Authority.

XIV. Non-exclusivity

32. The Authority shall have no obligation respecting, and no limitations on, its right to obtain goods of the same kind, quality and quantity, or to obtain any services of the kind described in the contract, from any other source at any time.

XV. Taxation

33. Article 183 of the United Nations Convention on the Law of the Sea provides, inter alia, that within the scope of its official activities, the Authority, its assets and property, its income and its operations and transactions, authorized by the Convention, shall be exempt from all direct taxation, and that goods imported or exported for its official use shall be exempt from all customs duties. The Authority shall not claim exemption from taxes that are no more than charges for service rendered.

34. In the event that any governmental authority refuses to recognize the exemptions of the Authority from such taxation and customs duties, the contractor shall immediately consult with the Authority to determine a mutually acceptable procedure. The Authority shall have no liability for taxes, duty or other similar charges payable by the contractor in respect of any amounts paid to the contractor under the contract, and the contractor acknowledges that the Authority will not issue any statements of earnings to the contractor in respect of any such payments.

XVI. Settlement of disputes

35. Amicable settlement. The Authority and the contractor shall use their best efforts to amicably settle any dispute arising out of the contract or the breach, termination or invalidity thereof. Where the parties wish to seek such an amicable settlement through conciliation, the conciliation shall take place in accordance with the applicable Conciliation Rules of the United Nations Commission on International Trade Law (UNCITRAL), or according to such other procedure as may be agreed between the parties in writing.

36. Arbitration. Any dispute between the parties arising out of the contract, or the breach, termination or invalidity thereof, unless settled amicably as provided above, shall be referred by either of the parties to arbitration in accordance with the applicable UNCITRAL Arbitration Rules. The number of arbitrators shall be three. The language to be used in arbitral proceedings shall be English. The decisions of the arbitral tribunal shall be based on general principles of international commercial law. The arbitral tribunal shall

have no authority to award punitive damages. The parties shall be bound by any arbitration award rendered as a result of such arbitration as the final adjudication of any such dispute, controversy or claim.

XVII. Privileges and immunities

37. Nothing in or relating to the contract shall be deemed a waiver, express or implied, of any of the privileges and immunities of the Authority and its officials.

XVIII. Miscellaneous

38. The contract may be executed by parties with the use of electronic signatures in several counterparts, each of which shall be an original, but all of which shall together constitute one and the same instrument.

39. The contract embodies the entire agreement and understanding between the contractor and the Authority and supersedes any and all prior agreements and understandings between parties.