# REQUEST FOR PROPOSAL

**To:** ALL BIDDERS  
**CTBTO Ref. No.:** 2021-0084/APYLOV BA  
(Please quote on all communications)

**Tel. No.:** +43 (1) 26030-6350  
**E-mail:** procurement@ctbto.org

**Attn:** Phone:  
Email:  
**Date:** 23 Jul 21

**Subject:** Downtime analysis and station equipment failure statistics for IMS stations on a call-off basis

**Deadline for Submission:** 19 Sep 21  
**Vienna Local Time:** 17:00

The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (hereinafter referred to as the "Commission") hereby invites you to submit a proposal that meets the requirements of the attached documents.

"Lot Work Area 1 - Downtime analysis and station equipment failure statistics for the IMS RN network"

"Lot Work Area 1 - Downtime analysis and station equipment failure statistics for the IMS SHI network"

"Optional Work - Additional Services"

You are kindly requested to complete and return the acknowledgement form by fax or email as soon as possible. If you have any questions you should contact the email address indicated above.

Yours Sincerely,

Courtney Linley  
Chief, Procurement Section
ACKNOWLEDGEMENT FORM

Solicitation No: 2021-0084
Title: Downtime analysis and station equipment failure statistics for IMS stations on a call-off basis

Closing Date: 19 Sep 21
Vienna Local Time: 17:00

Procurement Staff: Bugubai Apylov

CTBTO Req. No.: 0010017952

Please complete 'A' or 'B' or 'C' and Return

WITHIN FIVE (5) DAYS
THE PREPARATORY COMMISSION FOR THE COMPREHENSIVE NUCLEAR-TEST-BAN TREATY ORGANIZATION (CTBTO)

by email to procurement@ctbto.org

A: We shall submit our proposal

By: ____________________________
   (date)

Company Name: ____________________________
Contact Name: ____________________________
Email/Tel: ____________________________

B: We may submit and will advise

By: ____________________________
   (date)

Company Name: ____________________________
Contact Name: ____________________________
Email/Tel: ____________________________

C: We will not submit a proposal for the following reason(s)

___ our current workload does not permit us to take on additional work at this time;
___ we do not have the required expertise for this specific project;
___ insufficient time to prepare a proper submission;
___ other (please specify) ____________________________

Company Name: ____________________________
Contact Name: ____________________________
Email/Tel: ____________________________
INSTRUCTIONS FOR PREPARATION AND SUBMISSION OF PROPOSALS

1. General

The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (the Commission) with its headquarters in Vienna is the International Organization mandated to establish the global verification system foreseen under the Comprehensive Nuclear-Test-Ban Treaty (CTBT), which is the Treaty banning any nuclear weapon test explosion or any other nuclear explosions. The Treaty provides for a global verification regime, including a network of 321 stations worldwide, a communication system, an International Data Centre and on-site inspections to monitor compliance with the Treaty.

The Commission wishes to engage one or more contractors for the services pertaining to the downtime analysis and station equipment failure statistics for IMS stations on a call-off basis.

The Commission intends to conclude a long-term agreement in the form of a call-off contract with fixed unit prices for two (2) years, with a possibility of extension for two (2) years. Any order placed under the call-off contract will be based on a Formal Request for Delivery (FRD) to be issued on an “as needed” basis by the Commission.

For this purpose, the Commission wishes to solicit a competitive offer (Proposal) for the required services in accordance with the attached Terms of Reference.

The Proposal may be submitted for the whole Scope of Work (Section III of the Terms of Reference) or separately for “Work Area 1” (Section IV.1 of the Terms of Reference) and “Work Area 2” (Section IV.2 of the Terms of Reference).

The Proposal shall meet all requirements stated in the Terms of Reference. For this project, the Commission is seeking capabilities, which will ensure that the services are performed in timely manner, acceptable quality and at a reasonable cost.

2. Documents included in this RFP

This RFP consists of the following documents:

(a) Letter of Invitation
(b) These Instructions for Preparation and Submission of Proposals
   i) Attachment 1 - Technical Evaluation Scoring Matrix
   ii) Attachment 2 - Minimum Requirements of the Financial Proposal
   iii) Attachment 3 - Procedure for Submission of Electronic Bids
(c) Statement of Confirmation
(d) Vendor Profile Form
(e) List of CTBTO Member States
(f) The Commission’s Model Contract and its Annexes A – B;
   i) The Commission’s General Conditions of Contract (Annex A);
   ii) Terms of Reference (Annex B)

Note: In the event of award, the Proposal will be incorporated as Annex C to the Contract.
3. **Amendment of RFP Documents**

At any time prior to the closing date for submission of Proposal, the Commission may, for any reason, modify the RFP documents by amendment. The Commission may consider extending the deadline in order to allow adequate time for considering the modifications in the preparation of the Proposal.

4. **Language of the Proposal**

The Proposal and all correspondence and documents relating to it shall be in English.

5. **Format and Submission of the Proposal**

The Proposal shall be typed, dated and signed by an official legally authorized to enter into contracts on behalf of your organization. The Proposal shall not contain any interlineation, erasures or overwriting except as necessary to correct errors, in which case such corrections shall be initialed by the authorized person(s) signing the Proposal.

**The Proposal shall be submitted electronically according to the Attachment 3 “PROCEDURE FOR SUBMISSION OF ELECTRONIC BIDS”.**

The Proposal shall be received not later than the closing date indicated in the Letter of Invitation.

6. **Request for Clarifications and Contacting the Commission**

The Commission will issue clarifications, if required. Bidders are requested to e-mail any questions pertaining to this RFP as soon as possible after receipt of the solicitation documents, but in any case no later than 5 business days prior to the Closing Date. No requests for clarifications will be entertained after this time. Questions will only be accepted via e-mail and should be sent to:

   E-mail: procurement@ctbto.org
   Subject: Request for Clarifications re RFP No. 2021-0084

The Commission will make all reasonable efforts to issue the clarifications not later than 5 business days prior to the Closing Date.

Except in case of responding to a RFP clarification, no bidder shall contact the Commission on any matter relating to the Proposal after its submission and until the award of the Contract. Any attempt to influence the Commission in its evaluation of the Proposal or the contract award decision may result in the rejection of the Proposal.

7. **Eligible Goods and Services**

The services and goods (if any) to be rendered under the Contract shall have their origin in the States Signatories of the Comprehensive Nuclear-Test-Ban Treaty (CTBT), the list of which is attached to this RFP. For purposes of this paragraph, “the origin” means the place from where the materials, goods and/or from which the services are supplied.
8. **Type of Contract and Payment**

The terms and conditions of payment for services are described in Clause 12 of the attached Model Contract. Within 30 days of receipt and acceptance of the services and of the following documents:

1. Invoice(s) to be submitted by the Contractor electronically, from the Contractor’s official e-mail address in PDF format, duly signed and stamped by the Contractor and submitted to the Commission’s email address specified in the Contract. Each invoice shall contain the Contract number (CTBTO and SAP numbers), detailed banking instructions, including the name and address of the Contractor’s bank, account number, account holder’s name and SWIFT, IBAN and/or ABA codes for payment by electronic transfer and actual pre-paid transportation & insurance cost (if applicable);
2. Acknowledgement copy of the relevant FRD with Contractor’s signature;
3. Any other relevant documents.

Applicable Taxes payable by the Supplier and/or its subcontractor(s) shall be invoiced separately or be separately identified on the invoice. Actual payment of the Taxes must primarily be supported by original documentation such as invoices, bank account statements, transfer orders, or receipts issued by the local tax or customs authorities. If submission of such original documentation is not possible for justifiable reasons, their copies could be accepted by the Commission provided that they are duly signed and certified by local tax or customs authorities. In case the currency in which the taxes are levied is not the currency of the Contract, bank statements (or equivalent) showing the exchange rate used for the conversion shall be submitted to the Commission, in addition to any other supporting documentation.

“Taxes” means all direct and indirect taxes (including value added tax, general sales tax or goods and services tax), assessments, fees, customs duties, liens and charges in as much as they are levied in conclusion or implementation of the Contract, including customs restrictions and charges of similar nature in respect of articles imported or exported for the Commission’s official use.

9. **Preparation of the Proposal**

The Proposal shall contain, but not necessarily be limited to, the information described below.

The Proposal shall be composed of the following separate parts:

I. **Technical Proposal**; and
II. **Financial Proposal**;

providing, but not limited to, the following information:

**PART I: TECHNICAL PROPOSAL**

Please state the reference number and the date of this RFP in the Proposal and any correspondence relating to it.

**Statement of Confirmation**

The attached Statement of Confirmation shall be duly signed and submitted together with the Proposal.
Contact Person
The Proposal shall state the contact details and address (name, telephone and fax numbers, and e-mail address) of the person/point of contact in your company dealing with this RFP.

Description of Services
The Technical Proposal shall be written in accordance with the structure of the Terms of Reference (Annex B) attached hereto.

The bidder should follow Section by Section of the Terms of Reference and provide an explanation of the bidder’s understanding of the services to be rendered and an overall preliminary operational plan for the execution of the services (Sections II – III of the Terms of Reference). With the reference to Section IV, the bidder should provide explanation to satisfy the minimum requirements referenced in this Section of the Terms of Reference. The bidder may provide additional related content in attachments.

Qualifications
With the reference to Section V.1 “Requirements for the Contractor” of the Terms of Reference, a documentary evidence of the bidder’s qualifications should be provided by the bidder to establish to the Commission's satisfaction that the bidder has technical capability necessary to perform the necessary services as required by the Contract.

Personnel
With the reference to Section V.2 “Team Roster” of the Terms of Reference, the bidder should provide Curriculum Vitae of key staff proposed for this Contract, including technical experience to perform the Services.

Please note that it is the bidder’s responsibility alone to obtain work permits or visa or similar for the personnel proposed to implement this project. The Commission will make no effort nor accept any responsibility for obtaining work permits or visa or similar for the Contractor’s personnel.

Use of former Preparatory Commission for the CTBTO (“Commission”) employees in the preparation of Quotations:
A Bidder must not, in the absence of prior written approval from the Commission, permit a person to contribute to, or participate in, any process relating to the preparation of a Quotation or the procurement process if the person:
   a. At any time during the 12 months immediately preceding the date of issue of the Solicitation was an official, agent, servant or employee of, or otherwise engaged by the Commission;
   b. At any time during the 24 months immediately preceding the date of issue of the Solicitation was an employee of the Commission personally engaged, directly or indirectly, in the definition of the requirements, project or activity to which the Solicitation relates.

Subcontractors
Names, legal status, address and qualifications of subcontractor(s), if any, and the scope of the subcontracted services. The Proposal shall provide a statement that your organization shall be fully responsible for the performance of sub-contractors. All sub-contractors shall be legally established in one of the CTBTO Member States.
Commission’s Inputs
A description of the expected inputs/resources to be made available by the Commission and at what stage of the services.

Time Schedule
A bar chart indicating the estimation of the duration of the services, including the duration of each task required by the Terms of Reference and key staff to be involved in each task.

References
Potential bidders shall include a minimum of 3 client references with their offer. If after reasonable efforts, the Commission is unable to contact the client references provided by the bidder, the Commission may take the decision not to further consider the offer provided by the bidder.

Model Contract
A statement that the bidder has carefully reviewed the Model Contract and its Annexes and is in agreement with all its terms and conditions.

Vendor Profile Form (VPF)
The attached Vendor Profile Form, if not previously submitted to the Commission, shall be duly signed and submitted together with the Proposal.

PART II: FINANCIAL PROPOSAL

(I) The Financial Proposal shall be submitted in the format set out in Attachment 2 “Format of Financial Proposal” attached hereto. Bidders shall provide all the information requested in this matrix but may provide additional related content as attachments.

This will be evaluated as part of the responsiveness of the Financial Proposal. A Proposal that fails to meet this requirement may be disqualified and not be considered for further evaluation.

(II) The bidder shall quote firm fixed person-day rates in US Dollars and EURO. The quoted rates should include all overheads and ancillary expenses, unless included as firm fixed “Other Costs” or otherwise stated in Attachment 2 “Format of Financial Proposal”.

*Note: the estimated number of person-days outlined in the Terms of Reference is included for evaluation purposes only and does not represent a financial commitment on behalf of the Commission.*

(III) Estimated costs for travel based on the most economic and direct route shall be specified in the Financial Proposal. Costs for DSA shall be paid based on the UN DSA rate applicable at the time when a specific FRD is issued. Estimated costs included in the FRD will be invoiced based on actual costs against relevant supporting documentation e.g. invoices for travel, shipping, etc. and shall not exceed 10% of the estimate. Daily Subsistence Allowance (DSA) for on-site work shall be reimbursed based on the applicable United Nations DSA rate.
(IV) In principle the Commission is exempt from taxes. Since the arrangement under which such exemption is respected varies from country-to-country, the selected bidder will be informed by the Commission whether tax exemption will occur at source or whether taxes paid by the selected bidder will be reimbursed by the Commission upon submission of the original supporting documentation.

(a) For Austrian companies

The price quoted shall be net of Taxes. All applicable Taxes payable by the selected bidder at the conclusion or implementation of the Contract in respect of the goods/services shall be quoted separately or be separately identified on the Proposal together with information on the nature of the tax and its method of calculation.

(b) For European Union (EU) Companies

The price quoted shall be net of Taxes. All applicable Taxes payable by the selected bidder at the conclusion or implementation of the Contract in respect of the goods/services shall be quoted separately or separately identified on the Proposal together with information on the nature of the Tax and its method of calculation. Due to the VAT exemption applicable to the Commission, no VAT will be charged to the Commission by the EEC Suppliers under the Contract (Ref. EU VAT Council Directive 2006/112/EC, Article 151).

(c) For Non-EU Companies

The price quoted shall be net of Taxes. All applicable Taxes payable by the selected bidder at the conclusion or implementation of the Contract in respect of the goods/services shall be quoted separately or be separately identified on the Proposal together with information on the nature of the tax and its method of calculation. For deliveries to Vienna, Austria, and due to the tax exemption at source applicable to the Commission, no Taxes shall be charged to the Commission under the Contract.

Note that clear and detailed explanations would enable us to evaluate the Proposal promptly and proceed with fewer requests for clarifications/justifications in a later stage. This is also a factor influencing the decision for Contract award.

10. Completeness and Correctness of the Proposal

The Commission reserves the right to verify all information furnished by you in the Proposal through a source of its choice. Any inaccurate information so given may lead to the rejection of the Proposal.

11. Validity of Proposal

The Proposal shall be valid for 90 (ninety) days after the deadline for its submission to the Commission, unless an extension of validity has been requested by the Commission.

12. Correction of Errors

The Commission will check the Proposal for any arithmetic errors. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected.
13. **Evaluation of Proposal**

(a) The Commission will first conduct a technical evaluation based on the Technical Evaluation Criteria provided in Attachment 1 to this document.

Please refer to Attachment 1 (Technical Evaluation Criteria) for a complete list of the criteria that form the basis of the technical evaluation for Technical Proposal. If the Technical Proposal fails to meet the minimum technical requirements for any one criterion, the entire Proposal will not be considered further and disqualified.

If the Proposal meets the minimum technical requirements, the Commission reserves the right to invite the proposed personnel to an interview in order to complete the technical evaluation of the Technical Proposal and give a technical score.

(b) Only the Financial Proposals of those bidders that meet or exceed the minimum technical requirements of all items will be opened and evaluated for their commercial acceptability and to determine the financial score for each responsive Bidder. The Commission will calculate the total sum the estimated number of days and 2 top fixed unit rates, which include:

(i) Lot Work Area 1: \((220 \text{ days } [\text{Initial Call-off Period}] + 220 \text{ days } [\text{Extended Call-off Period}]) \times 2 \text{ top fixed unit rates/day})\);

(ii) Lot Work Area 2: \((200 \text{ days } [\text{Initial Call-off Period}] + 200 \text{ days } [\text{Extended Call-off Period}]) \times 2 \text{ top fixed unit rates/day})\);

(iii) Lot Optional Work: \((30 \text{ days } [\text{Initial Call-off Period and Extended Call-off Period}] \times 2 \text{ top fixed unit rates/day})\).

See Notes in Attachment 1 (Technical Evaluation Criteria) and the pricing requirements in Attachment 2 (Format of Financial Proposal).

(c) The bidder’s Proposal will be subject to the evaluation against contractual compliance, i.e. acceptance of the Model Contract on a call-off basis and the Commission’s General Conditions of Contract.

(d) The Commission, based on the evaluation method given above, will determine the Proposal that “most effectively satisfies the technical and operational requirements set out in the solicitation documents”. The relative weighting of each component of the Proposal is 70% for the Technical Proposal and 30% for the Financial Proposal.

(e) The Commission will award the Contract to the Contractor who receives the highest combined score. The Commission may split the award of the Contract and award more than one Contracts to the technically acceptable bidders who receive the highest combined score in each individual work area (top bidders).

14. **Negotiations of the Proposal and Award**

The Commission reserves the right to request clarifications on the Proposal and to enter into negotiations regarding technical or commercial aspects of the Proposal before awarding the contract under this RFP.

The Commission also reserves the right to split the award for this project if so deemed desirable.
15. Modification and Withdrawal of Proposal

Bidders may modify or withdraw their Proposals after their submission, provided that written notice of the modification or withdrawal is received by the Commission by the closing date for the submission of the Proposal. The Proposal may not be modified subsequent to the closing date.

16. The Commission’s Right to Reject the Proposal

The Commission reserves the right to accept or reject the Proposal or to annul this procurement process at any time prior to the award of contract without having to inform the bidders of the grounds therefore, without thereby incurring any liability to the bidders.

17. Costs of preparation and submission of the Proposal

Bidders shall bear all the costs associated with the preparation and submission of their Proposal and the Commission will not be responsible or liable for those costs, regardless of the outcome of this RFP.

18. Proprietary Information

All documentation and information contained in this RFP are proprietary to the Commission and shall not be duplicated, used or disclosed -in whole or in part- for any purpose other than to evaluate them and respond to the Commission's request for Proposal or otherwise without prior written agreement of the Commission.
| **BIDDER’S STATEMENT**
| **PLEASE STATE BELOW & SUBMIT WITH PROPOSAL** |

**Delivery Time:**

**Shipping weight (kg) and Volume (m³) – if applicable:**

**List of recommended consumables and spares including prices and details on local availability, if applicable (please tick):**
- [ ] For one year period
- [ ] For a period of

**Warranty period applicable (it shall be for a **minimum of 24 months**, starting from the acceptance of the goods/services by the Commission) – please tick below:**
- [ ] For a two year period
- [ ] For a period of

**Availability of local service in Vienna, Austria (if any):**

**State country of origin or assembly of all items quoted:**

**Quantity discount and early payment discount (if any):**

Include documentary evidence of qualifications to perform the order, which shall establish to the Commission’s satisfaction that the bidder has the financial, technical and production capability necessary to perform the order in its entirety and to provide spare parts and other necessary on-going services as required.

**Included in this quotation : Yes [ ] No [ ]**

**Confirmation that the bidder has reviewed the Commission’s Model License Agreement (if attached), the Commission’s General Conditions for Goods (if attached), the Commission’s General Conditions of Contract (if attached), Draft Contract (if attached), and the Special Conditions (if attached), and agreed to all terms and conditions.**
- [ ] Yes
- [ ] No

**Remarks:**

With regards to the software provided with the equipment, state and confirm whether the software licenses are transferable to third parties, i.e. the Commission or the Commission’s State Signatories (Member States).

**Remarks:**
- [ ] Yes
- [ ] No
- [ ] Not applicable

**Name:**

**Name & Title of Contact Person:**

**Signature & date:**
### Work Area 1: Failure statistics and failure analysis of the IMS Radionuclide Network

<table>
<thead>
<tr>
<th>Technical Evaluation Criteria</th>
<th>Weight</th>
<th>Points</th>
<th>Max Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ability to use English language for all written and oral communication with the Commission (see Section V.1)</td>
<td>1%</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td>2. Engineering or technical education, experience and training (see Section V.1)</td>
<td>2%</td>
<td>10</td>
<td>0.2</td>
</tr>
<tr>
<td>3. Very good knowledge and skills using standard computer applications (MS Office) (see Section V.1)</td>
<td>1%</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td>4. Technical knowledge of CTBT International Monitoring System technologies (RN Particulate and Noble Gas) (see Section V.1)</td>
<td>10%</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>5. Understanding of IMS Station Models of IMS technologies as defined in the Appendix (RN Particulate and Noble Gas) (see Section V.1)</td>
<td>10%</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>6. Proven with preferably three (3) years minimum experience in reviewing problem reports, performing downtime or failure analysis, computing failure statistics and providing computation services (see Section V.1)</td>
<td>20%</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>7. Knowledge of failure modes and causes occurring at IMS stations (RN Particulate and Noble Gas) and ability to understand, interpret, and correct if necessary failure modes and categories from problem reports (see Section V.1)</td>
<td>1%</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td>8. Proven with preferably three (3) years minimum experience working on the Database of the Technical Secretariat (DOTS) and the IMS Report System (IRS) databases is an asset (see Section V.1)</td>
<td>1%</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td>9. Proven with preferably three (3) years minimum experience using databases (e.g. Oracle and SQL) is an asset for RN and NG technologies (Work Area 1) (see Section V.1)</td>
<td>1%</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td>10. Proven experience using CTBT Performance Reporting Tool (PRTool) (webpage, database) is an asset for RN and NG technologies (Work Area 1) (see Section V.1)</td>
<td>1%</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td>11. Proven experience using JIRA (Atlassian software) Application Programming Interfaces (APIs) is an asset for RN and NG technologies (Work Area 1) (see Section V.1)</td>
<td>1%</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td>12. Experience using a programming language (such as Python) is an asset (see Section V.1)</td>
<td>1%</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td>13. Demonstrated expertise in implementing Quality Control of products and services in accordance to Internationally recognized Quality Standards (see Section V.1)</td>
<td>5%</td>
<td>10</td>
<td>0.5</td>
</tr>
<tr>
<td>14. Demonstrated experience in working within an established Quality Management System is an asset (see Section V.1)</td>
<td>1%</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td>15. Team expertise requirements in reference to Section V.2 of the ToR</td>
<td>30%</td>
<td>10</td>
<td>3</td>
</tr>
</tbody>
</table>

**Max - 150 Score (100%) or Min Threshold of Technical Acceptability - 75 Min.Score (75%)**

| Overall Technical Score of the Technical Proposal | 70% |

1 = Response incomplete, inadequate and/or non-responsive to the requirement. Bidder does not clearly understand the requirement \(\text{(UNACCEPTABLE)}\)
2 - 3 = Does not meet the minimum technical, functional, or performance related requirement \(\text{(UNACCEPTABLE)}\)
4 = Meets minimum acceptable requirement in most areas, but is lacking details and responsiveness in some areas of the requirement \(\text{(UNACCEPTABLE)}\)
5 = Meets Minimum Requirements
6 = Fully meets requirements; acceptable technical, functional and performance related requirements in all areas
7 = Fully meets requirements; SLIGHTLY ABOVE requirements in SOME areas (technical, functional and performance related requirements)
8 = Fully meets requirements; SLIGHTLY ABOVE requirements in ALL areas (technical, functional and performance related requirements)
9 = Response exceeds requirements in ALL areas and ADDs additional technical, functional and performance related VALUE to the proposed services/work
10 = Significantly above ALL requirements with a clear distinction

Identify strengths and weaknesses of the bidder, which resulted in the scores. In the case of technical unacceptability, please give the primary reason.
If no bid or no response was received from an invited bidder, indicate the reason in “Reason for Rating”
## ATTACHMENT 1

### Work Area 2: Failure statistics and failure analysis of the IMS SHI Network

<table>
<thead>
<tr>
<th>Technical Evaluation Criteria</th>
<th>Weight</th>
<th>Score</th>
<th>Max Score</th>
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<td>2 Engineering or technical education, experience and training</td>
<td>1%</td>
<td>10</td>
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<tr>
<td>3 Very good knowledge and skills using standard computer applications (MS Office)</td>
<td>1%</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td>4 Technical knowledge of CTBT International Monitoring System technologies (SHI) (see Section V.1)</td>
<td>10%</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>5 Understanding of IMS Station Models of IMS technologies as defined in the Appendix (SHI) (see Section V.1)</td>
<td>3%</td>
<td>10</td>
<td>0.3</td>
</tr>
<tr>
<td>6 Proven with preferably three (3) years minimum experience in reviewing problem reports, performing downtime or failure analysis, computing failure statistics and providing computation services (see Section V.1)</td>
<td>15%</td>
<td>10</td>
<td>1.5</td>
</tr>
<tr>
<td>7 Knowledge of failure modes and causes occurring at IMS stations (SHI) and ability to understand, interpret, and correct if necessary failure modes and categories from problem reports (see Section V.1)</td>
<td>15%</td>
<td>10</td>
<td>1.5</td>
</tr>
<tr>
<td>8 Proven with preferably three (3) years minimum experience working on the Database of the Technical Secretariat (DOTS) and the IMS Report System (IRS) databases is required for SHI (Work Area 2) technologies (see Section V.1)</td>
<td>5%</td>
<td>10</td>
<td>0.5</td>
</tr>
<tr>
<td>9 Proven with preferably three (3) years minimum experience using databases (e.g. Oracle and SQL) is required for SHI technologies (Work Area 2) (see Section V.1)</td>
<td>15%</td>
<td>10</td>
<td>1.5</td>
</tr>
<tr>
<td>10 Proven experience using CTBT Performance Reporting Tool (PRTool) (webpage, database) is required for SHI technologies (Work Area 2) (see Section V.1)</td>
<td>1%</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td>11 Proven experience using JIRA (Atlassian software) Application Programming Interfaces (APIs) is required for SHI technologies (Work Area 2) (see Section V.1)</td>
<td>1%</td>
<td>10</td>
<td>0.1</td>
</tr>
<tr>
<td>12 Experience using a programming language (such as Python) is an asset (see Section V.1)</td>
<td>1%</td>
<td>10</td>
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</tr>
<tr>
<td>14 Team expertise requirements in reference to Section V.2 of the ToR</td>
<td>30%</td>
<td>10</td>
<td>3</td>
</tr>
</tbody>
</table>

Max - 150 Score (100%) or Min Threshold of Technical Acceptability - 75 Min.Score (75%)

Overall Technical Score of the Technical Proposal 70%

---

1 = Response incomplete, inadequate and/or non-responsive to the requirement. Bidder does not clearly understand the requirement (UNACCEPTABLE)
2 - 3 = Does not meet the minimum technical, functional, or performance related requirement (UNACCEPTABLE)
4 = Meets minimum acceptable requirement in most areas, but is lacking details and responsiveness in some areas of the requirement (UNACCEPTABLE)
5 = Meets Minimum Requirements
6 = Fully meets requirements; acceptable technical, functional and performance related requirements in all areas
7 = Fully meets requirements; SLIGHTLY ABOVE requirements in SOME areas (technical, functional and performance related requirements)
8 = Fully meets requirements; SLIGHTLY ABOVE requirements in ALL areas (technical, functional and performance related requirements)
9 = Response exceeds requirements in ALL areas and ADDs additional technical, functional and performance related VALUE to the proposed services/work
10 = Significantly above ALL requirements with a clear distinction

Identify strengths and weaknesses of the bidder, which resulted in the scores. In the case of technical unacceptability, please give the primary reason.

If no bid or no response was received from an invited bidder, indicate the reason in “Reason for Rating.”

---

Instructions for preparation and submission of proposals
Attachment 1 - Technical Evaluation Criteria

Page 2 of 4
1. Technical Evaluation

In the Technical Evaluation stage the maximum available points/scores are:

- Work Area 1: max 150 score (100%); whereas the Minimum threshold for technical acceptability of Technical Proposal – 75 score (75%);
- Work Area 2: max 140 score (100%); whereas the Minimum threshold for technical acceptability of Technical Proposal – 75 score (75%).

To pass the minimum threshold in the technical evaluation, the bidders need to obtain at least 5 points in each criterion outlined in Tables 1 and 2. Non-compliance with at least one (1) of any technical criteria will result in the disqualification of the bidder on the technical evaluation stage.

The bidders that satisfy the technical criteria to the minimum acceptable level will be assigned 5 points. The bidders whose proposals demonstrate that they satisfy a technical criterion beyond the minimum acceptable level will be assigned additional points, up to 10.

Upon finalization of the technical evaluation, all technical scores at the technical evaluation stage will be converted according to 70% weight for technical part of evaluation.

2. Financial Evaluation

Once the technical evaluation is finalized, the technical evaluation panel and ADM/PR will evaluate the financial offers of the technically compliant bidders.

The Commission will calculate the estimated price of each technically acceptable proposal as the total sum of the estimated number of days and 2 top firm fixed unit rates to obtain the financial value:

- Lot Work Area 1: ((220 days [Initial Call-off Period] + 220 days [Extended Call-off Period]) * 2 top fixed unit rates/day));
- Lot Work Area 2: ((200 days [Initial Call-off Period] + 200 days [Extended Call-off Period]) * 2 top fixed unit rates/day));
- Lot Optional Work: (30 days [Initial Call-off Period and Extended Call-off Period] * 2 top fixed unit rates/day)).

See pricing requirements in Attachment 2 (Format of Financial Proposal).

The financial offers will be evaluated in accordance with the formula given below:

\[ X = \text{Max Available Score} \times \frac{Y}{Z} \]

\[ X = \text{score or percentage to be assigned to the Financial Proposal being evaluated}; \]
\[ Y = \text{price of the technically compliant offer with the lowest calculated price}; \]
\[ Z = \text{calculated price of the Financial Proposal being evaluated}. \]

The bidders are expected to accept the Commission’s Model Contract and General Conditions on Contract in full. Any deviations to such provisions will be a factor in the decision of the contract award.
3. Combined Score
The summary of the combined technical and financial evaluation is as follows: 70%/30% relative weight for each, the technical and financial values).

<table>
<thead>
<tr>
<th></th>
<th>Bidder 1</th>
<th>Bidder 2</th>
<th>Bidder 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Score = max. 70 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Score = max. 30 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Combined Score</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Contract(s) will be awarded to the bidder(s) who receives the highest combined score resulting from the technical and financial evaluation. Should the Commission deem it necessary, it may split the award and conclude more than one Contracts for each Work Area and Optional Work, with the first two ranked bidders per lot.
## ATTACHMENT 2 – Format of Financial Proposal

**Instructions for the Preparation and Submission of Proposals**

### WORK AREA 1

<table>
<thead>
<tr>
<th>Labour ² (see TOR section IV.1)</th>
<th>On-request Services during Initial Two-Year Contract Period ³</th>
<th>On-request Services during Optional Two-Year Extension of the Contract ³</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>Rate ²</td>
<td>Q-ty</td>
<td>Total</td>
</tr>
<tr>
<td>Offsite Work (IV.1.1)</td>
<td>day</td>
<td>124</td>
<td>day</td>
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<tr>
<td>Onsite Work (IV.1.1)</td>
<td>day</td>
<td>10</td>
<td>day</td>
</tr>
<tr>
<td>Offsite Work (IV.1.2)</td>
<td>day</td>
<td>76</td>
<td>day</td>
</tr>
<tr>
<td>Onsite Work (IV.1.2)</td>
<td>day</td>
<td>10</td>
<td>day</td>
</tr>
</tbody>
</table>

**Subtotal Labour**

| Travel costs ⁵ | | | |
|----------------|-------------------------|
| Return travel to Vienna, Austria | LumpSum | 4 |

**Subtotal travel**

| Other costs ⁶ | | |
|---------------|-------------------------|
|               |                        |

**Subtotal other costs**

---

1) Please fill in the cells in all columns.
2) Please specify currency (USD or Euro only). The rate shall be firm and fixed throughout the term of the Contract.
3) The On-Request Services shall be based on fixed unit rates for labor. The exact number of working days and return trips will be determined/called-off in the form of Formal Request for Deliveries (FRDs) at the rates.
   The stated figures are best estimates only.
4) *) The offsite rate shall include all costs and expenses incurred by the Contractor for the full and proper performance of all relevant obligations under the Contract.
   Offsite Work means work performed by the Contractor at its premises.
   *) The onsite rate shall consist of the offsite rate and any additional costs and expenses incurred by the Contractor for its staff to perform the relevant obligations, excluding daily subsistence allowance and travel costs.
   Onsite work means work performed by the Contractor at the Commission’s premises.
5) Travel costs
   a) shall include the cost of return travel by air/road/sea based on the most economic direct route between the place of establishment of the Contractor
   b) quote for the Kickoff Meeting (to Vienna, Austria) shall be quoted as firm-fixed costs.
6) Please specify, if applicable
7) Additional Services (OPTIONAL) can be included into this Table 1 or provided separately
### ATTACHMENT 2 – Format of Financial Proposal

Instructions for the Preparation and Submission of Proposals

<table>
<thead>
<tr>
<th>WORK AREA 2</th>
<th>On-request Services during Initial Two-Year Contract Period</th>
<th>On-request Services during Optional Two-Year Extension of the Contract</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Unit</td>
<td>Rate</td>
<td>Qty</td>
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<tr>
<td>Labour</td>
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<tr>
<td>Onsite Work</td>
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<tr>
<td>Subtotal Labour</td>
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<td></td>
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<tr>
<td>Travel costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return travel to Vienna, Austria</td>
<td>LumpSum</td>
<td>4</td>
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<tr>
<td>Subtotal travel</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(*)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal other costs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Please fill in the cells in all columns.
2) Please specify currency (USD or Euro only). The rate shall be firm and fixed throughout the term of the Contract.
3) The On-Request Services shall be based on fixed unit rates for labor. The exact number of working days and return trips will be determined/called-off in the form of Formal Request for Deliveries (FRDs) at the rates
   The stated figures are best estimates only.
4) *) The offsite rate shall include all costs and expenses incurred by the Contractor for the full and proper performance of all relevant obligations under the Contract,
   Offsite Work means work performed by the Contractor at its premises.
   *) The onsite rate shall consist of the offsite rate and any additional costs and expenses incurred by the Contractor for its staff to perform the relevant obligations, excluding daily subsistence allowance and travel costs.
   Onsite work means work performed by the Contractor at the Commission’s premises.
5) Travel costs
   a) shall include the cost of return travel by air/road/sea based on the most economic direct route between the place of establishment of the Contractor
   b) quote for the Kickoff Meeting (to Vienna, Austria) shall be quoted as firm-fixed costs.
6) Please specify, if applicable
7) Additional Services (OPTIONAL) can be included into this Table 2 or provided separately
Attachment 3

to

Instructions for Preparation and Submission of Proposals

“Procedure for Submission of Electronic Bids in 2 Sealed Files”

Given the current logistics restrictions at the Vienna International Centre as a result of the COVID-19 situation, the Commission invites you to submit your sealed bids in response to:

Request for Proposal No. 2020-0084 “Downtime analysis and station equipment failure statistics for IMS stations”

Please be sure to follow the instructions below very carefully, so that the documents you submit are encrypted, and cannot be opened without an encryption key (password). If the documents are not encrypted, they will not be accepted as part of this Tender process.

CRITICAL INFORMATION:

Create separate zip files for technical bids and financial bids (labeling them clearly in the title) with different encryption keys. Instructions for how to do this are provided below.

Step 1: You provide the encryption key (password) for the Technical Bid only (in accordance with the below instructions)!

Step 2: After the Commission has performed the evaluation of the Technical Bids, if your Technical Bid is considered to be acceptable, the Commission will request the encryption key (password) for the Financial Bid you have already submitted by the Tender Deadline.

Should you have any questions, please send an email to procurement@ctbto.org.

We recommend that you leave yourself plenty of time to complete the below process (including getting any necessary assistance from the Commission), as late bids will not be accepted.

INSTRUCTIONS:

1. In a WINDOWS environment, one way of meeting the requirements is as follows.

   We recommend using the open-source, free software 7-zip, but if you are comfortable with other tools, the result should be the same, as long as you can apply encryption to the archive. In the below, we’ll use 7-zip as an example.
   (You can download the 7-zip code for Windows at: 7-zip.org)

2. In LINUX environment, you can use, for instance, “sha1sum” on the command line.
Creating the archives for submission

Regardless of whether the bid is a single file, or a collection of files, the files are easier to manage if delivered as a single, compressed file. Compressing the archive is a common way to meet size limitations in email systems.

As an example of how to submit your bid in the required format: assuming you are supplier “SOFTCOMP” and have the following files related to the bid for “RFP 2020-0010/EDWALD”. (You will need to replace these elements with the real information for your actual bid.) Assuming further that you have installed the 7-zip software on the Windows system you are using.

We will only go through the creation of the Technical Bid (Proposal) component; the Financial Bid (Proposal) component is similar.

Select the four files and right-click; a Dialog box pops up, with one of the options being “7-ZIP >”. Hover your cursor over the “>” part and a few more options appear, select the “Add to archive” option.

Another dialog box pops up (see ‘Figure 2, Creating an Archive’, next page):

Using the standard Windows methods, select a suitable location for the archive (if you don’t change it, the archive gets created right where the selected files are), and give it a name in the form of: “SOFTCOMP-2020-0010-EDWALD-TECHNICAL-BID”, of course replacing all the elements with the true values for the bid in question: the actual company indicator, and the actual RFP identification string. Note that it is not possible to put a slash “/” in the filename, and therefore put a dash “-” instead. Leave the file extension “.zip” as is.

Leave all the other settings as is, except: add a password to the encryption (see figure 2 below). This is done by typing the same password (of your choosing) twice in the two text fields in the lower right hand corner.

Make a note of this password. You must choose different passwords for the two zip archives, that is, the Technical and the Financial bids.
Now, we seek the “SHA1 Hash”, and electronic fingerprint of the archive you have just created. The hash is a string calculated from your file(s) and can be used to guarantee that the file hasn’t been modified since you created it. Any change to the file will result in a different hash value.

There are many ways of calculating this; two common options are described below.
If the appropriate functionality is available in your Windows environment: Select the compressed archive in the Windows file manager, (eg. SOFTCOMP-2020-0010-EDWARDAL-TECHNICAL-BID.zip) and right click. One of the options to select is “CRC SHA >”. Hovering over the “ >” brings a few more options to light, select the SHA-1 option. A smaller dialog pops up: (see Figure 3, SHA1 below). Clicking Ctrl-C grabs the contents of this box. You can close the box after copying the contents. (You can paste the contents into a mail message, for instance.)
If this CRC SHA function is not available by ‘right-click’ on your Windows version, you can also do this from ‘the command line’, a slightly more complicated way. Open a CMD window (see sidebar below), move to the folder where your archive is, and execute the command: “certutil –hashfile SOFTCOMP-2020-0010-EDWALD-TECHNICAL-BID.zip sha1” where you obviously replace the name of the file with your real file name. The output of this command is the SHA1 “hash”. You can copy-and-paste the string for use in the email (below).

Sidebar: How to open a CMD window in Windows:

The way to open a Command window (or ‘terminal’) depends on the version of Windows you have. The different methods are very clearly described in the following article, but a quick internet search will find multiple descriptions.

https://www.lifewire.com/how-to-open-command-prompt-2618089

Finally,

1. Create a new email, Subject: example- “SOFTCOMP-2020-0010-EDWALD”. Add the two compressed archives, that is, the Technical Bid and the Financial Bid archives as attachments. The text of the email should contain the SHA1 information for both archives.

   SEND THIS TO: sealed_bids@ctbto.org (note that there is an underscore “_” between “sealed” and “bids”). (Should the email become larger than your mail system allows, you can try sending the two archives in separate emails. Take care to include the right SHA1 information with each file.)

2. Create a new email, Subject: example- “SOFTCOMP-2020-2010-EDWALD-Technical Bid” the contents of which must contain the Encryption Key for the Technical Bid (the password you used when creating the Technical Bid). (Again, note the underscore between ‘bid’ and ‘keys’.)

   SEND THIS TO: bid_keys@ctbto.org

   IMPORTANT NOTE: As stated above, only send the Encryption Key for the Technical Bid to the bid_keys@ctbto.org mailbox when sending your Technical and Financial Bids to the sealed_bids@ctbto.org mailbox. You shall only send the Encryption Key for the Financial Bid to the Commission if and when informed by the Commission that your Technical Bid had been evaluated as “technically acceptable”.

Figure 3 SHA1
The Financial Bid Encryption Key will need to be provided by you to the same e-mail (bid_keys@ctbto.org) within 48 hours of the Commission’s request, clearly marked in Subject: Encryption Key for (example): “SOFTCOMP 2020-2010 EDWALD-Financial Bid”. If your Bid is not considered “technically acceptable”, the Commission will not request an Encryption Key for your Financial Proposal, and it will remain unopened.

As mentioned above, should you have questions or difficulties, please send an e-mail to procurement@ctbto.org.

We recommend that you leave yourself plenty of time to complete the above process (including getting any necessary assistance from the Commission), as late bids will not be accepted.
STATEMENT OF CONFIRMATION

On behalf of (name of firm or organization): _______________________________, I hereby attest and confirm that:

a) The firm/organization possesses the legal status and capacity to enter into legally binding contracts with the Commission for the supply of equipment, supplies, services or work.

b) The firm/organization is not insolvent, in receivership, bankrupt or being wound up, and not under administration by a court or a judicial officer, and that it is not subject to the suspension of its business or legal proceedings for any of the foregoing reasons.

c) The firm/organization has fulfilled all its obligations to pay taxes and social security contributions.

d) The firm/organization has not, and that its directors and officers have not, within the last five years been convicted of any criminal offense related to professional conduct or the making of false statements or misrepresentations as to their capacity or qualifications to enter into a procurement or supply contract.

e) The Commission, in the event that any of the foregoing should occur at a later time, will be duly informed thereof, and in any event, will have the right to disqualify the firm/organization from any further participation in procurement proceedings.

f) The firm/organization did not/will not attempt to influence any other bidder, organization, partnership or corporation to either submit or not submit a proposal/bid/quotation;

g) The firm/organization will not, in the absence of a written approval from the Commission, permit a person to contribute to, or participate in, any process relating to the preparation of a Quotation/Bid/Proposal or the procurement process if the person:

   a. at any time during the 12 months immediately preceding the date of issue of the Solicitation was an official, agent, servant or employee of, or otherwise engaged by the Commission;
   b. at any time during the 24 months immediately preceding the date of issue of the Solicitation was an employee of the Commission personally engaged, directly or indirectly, in the definition of the requirements, project or activity to which the Solicitation relates.

h) Neither the organization/firm, its parent entities (if any), nor any of its subsidiary or affiliated entities (if any) have been identified on, or associated with any individual, groups, undertakings and entities identified on, the list established pursuant to the UN Security Council Resolution 1267 (Consolidated Sanctions List).  

i) Neither the organization/firm, its parent entities (if any), nor any of its subsidiary or affiliated entities (if any) are subject to any form of sanction imposed by an organization or body within the United Nations System, including the World Bank.

j) Neither the organization/firm, its parent entities (if any), nor any of its subsidiary or affiliated entities (if any), is engaged in any practice inconsistent with the rights set forth in the Convention on the Rights of the Child, including Article 32 thereof, which, inter alia, requires that a child shall be protected from performing any work that is likely to be hazardous or to interfere with the child’s education, or to be harmful to the child’s health or physical, mental, spiritual, moral, or social development.

k) Neither the organization/firm, its parent entities (if any), nor any of its subsidiary or affiliated entities (if any) will use the funds received under contracts/purchase orders with the Commission to provide support to individuals, groups, undertakings or entities associated with terrorism.

l) The prices in the firm/organization’s proposal/bid/quotation have been arrived at independently, without consultation, communication or agreement with any other interested companies, competitor or potential competitor with a view to restricting competition.

m) The Commission shall have the right to disqualify the firm/organization from participation in any further procurement proceedings, if it offers, gives or agrees to give, directly or indirectly, to any current or former staff member of the Commission a gratuity in any form, an offer of employment or any other thing of service or value, as an inducement with respect to an act or a decision of, or a procedure followed by, the Commission in connection with a procurement proceeding.

n) The Commission shall have the right to disqualify the firm/organization from participation in any further procurement proceedings if it does not disclose to the Commission any situation that may appear as a conflict of interest, and if it does not disclose to the Commission if any official or professional under contract with the Commission have an interest of any kind in the firm/organization’s business or any kind of economic ties with the firm/organization.

Name (print): _________________________       Signature: _________________________

Title/Position: _________________________

Place (City and Country): _________________________       Date: _________________________
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<thead>
<tr>
<th>Afghanistan</th>
<th>Dominican Republic</th>
<th>Liberia</th>
<th>Rwanda</th>
<th>Saint Kitts and Nevis</th>
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<td>Czech Republic</td>
<td>Lao People's</td>
<td>Republic of Thailand</td>
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<td>Democratic Republic of the Congo</td>
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<td>Republic of Moldova</td>
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<td>Russian Federation</td>
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<td>1. Name of Company:</td>
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<td>2. Street Address:</td>
<td>3. Telephone:</td>
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<td>P.O. Box:</td>
<td>4. E-Mail:</td>
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<td>City:</td>
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<td>Country:</td>
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<td>6. Contact Person:</td>
<td>Title:</td>
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<td>7. Legal Status (e.g. Partnership, Private Limited Company, Government Institution)</td>
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<td>8. Year Established:</td>
<td>9. Number of Employees:</td>
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<tr>
<td>10. Gross Corporate Annual Turnover (US$m)*:</td>
<td>11. Annual Export Turnover (US$m)*:</td>
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<td>12. Type of Business/Products:</td>
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<tr>
<td>Manufacturer</td>
<td>Sole Agent</td>
<td>Supplier</td>
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<td>Other (please explain)</td>
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<td>13. Type of Business/Services/Work:</td>
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<td>Engineering</td>
<td>Civil Work</td>
<td>Governmental Institution</td>
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<td>Other (please explain)</td>
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<td>14. References (your main customers, country, year and technical field of products, services or work): **</td>
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<td>Organization:</td>
<td>Value in US$ Equivalent:</td>
<td>Year:</td>
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<td>Organization:</td>
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<td>15. Previous Supply Contracts with United Nations Organizations (over the last 3 years)**</td>
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<td>Organization:</td>
<td>Value in US$ Equivalent:</td>
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<td>16. Summary of any changes in your company’s ownership during the last 5 years:</td>
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</table>

* Please provide a copy of the most recent audited annual report and accounts. Note: Export includes services or work performed abroad or for foreign clients.

** Please provide supplementary documentation on these items.
17. List of Products/Services/Work offered:

<table>
<thead>
<tr>
<th>Product/Service/Work #</th>
<th>Product/Service/Work Description</th>
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</tbody>
</table>

18. This section shall be **signed and stamped** by an official legally authorized to enter into contracts on behalf of your organization:

Name:                                 Title:                                             Signature: Date:

**Bank Details**

Bank Name:

Bank Address:

Exact Account Holder Name:

**Beneficiary Details**

Beneficiary Name: (exactly as stated on bank statements)

IBAN: (if applicable)

Account number:

SWIFT/BIC:

ABA/Sort Code:

**Additional Details** (if applicable)

Correspondent bank:

Correspondent account number:

Correspondent SWIFT/BIC:

Tax Identification Number:

**FOR CTBTO USE ONLY**

Evaluated By: Initials Date:

Updated By: Initials Date:

Remarks:
CONTRACT No. 2021-XXXX

(SAP No. _____)

between

THE PREPARATORY COMMISSION
FOR THE COMPREHENSIVE NUCLEAR-TEST-BAN TREATY
ORGANIZATION

(THE COMMISSION)

and

(THE CONTRACTOR)

for the provision of

Downtime analysis and station equipment failure statistics
for IMS stations on a Call-off Basis

____ 2021

This Model Contract comprises this cover page, a table of contents, 11 (eleven) pages of text, a signatories page, list of Annexes page, and 3 (three) Annexes (A to C)
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This CONTRACT is entered into between THE PREPARATORY COMMISSION FOR THE
COMPREHENSIVE NUCLEAR-TEST-BAN TREATY ORGANIZATION (hereinafter referred to
as “the Commission”), having its headquarters located at Wagramerstrasse 5, 1400 Vienna, Austria, and
[NAME OF CONTRACTOR] (hereinafter referred to as “the Contractor”), having its principal office
located at [ADDRESS OF CONTRACTOR] (both hereinafter individually referred to as the “Party”
and collectively as the “Parties”).

The Parties hereto mutually agree as follows:

1 DEFINITIONS

In this Contract, words and expressions shall have the same meanings as respectively assigned to
them in the General Conditions of Contract and the Terms of Reference. In addition, the following
words and expressions shall have the meanings hereby assigned to them:

“Annex A” means the Commission’s General Conditions of Contract.

“Annex B” means the Commission’s Terms of Reference.

“Annex C” means the Contractor’s Proposal dated xxxxxx.

“Contract” means this document, its Annexes and any further modifications or such further
documents as may be expressly incorporated in this Contract by the Parties in accordance with
Clause 20 below.

“Contractor” means the legal entity named in the preamble of this Contract or its successors. The
Contractor shall be the only interface for all matters pertaining to execution of the Work under this
Contract.

“FRD” means Formal Requests for Delivery to be issued by the Commission specifying the
Services to be delivered by the Contractor upon request by the Commission in accordance with
Annexes B and C.

“Party(ies)” means the Commission and/or the Contractor, as the context requires.

“Rule(s)” means any regulation(s), official directive(s), ordinance(s), guideline(s), customs and
practices.
“Services” means the activities or tasks to be performed by the Contractor under the Contract as requested by the Commission under an FRD.

“Taxes” means all direct and indirect taxes (including value added tax, general sales tax or goods and services tax), assessments, fees, customs duties, liens and charges in as much as they are levied in conclusion or implementation of the Contract, including customs restrictions and charges of similar nature in respect of articles imported or exported for the Commission’s official use.

“Work” means all the Services to be provided by the Contractor, including its affiliates and/or sub-contractors, in order to fulfil all its obligations under the Contract, and the remedying of any defects therein.

2 AIM OF THE CONTRACT

The aim of this Contract is to provide the Services to the Commission pertaining to the downtime analysis and station equipment failure statistics for IMS stations on a call-off basis (as applicable, for the Service under Work Area 1 (Section IV.1), or Work Area 2 (Section IV.2) of Annex B, or for both), as and when required by the Commission.

3 ENTRY INTO FORCE, DURATION OF THE CONTRACT AND COMMENCEMENT AND COMPLETION OF THE SERVICES

(a) The Contract shall enter into force upon the date of the last signature by the authorized Representatives of the Parties (hereinafter referred to as the “Effective Date”) and shall be valid until the Parties fulfill all their obligations hereunder.

(b) The Commission shall have the right to call-off the Services in the form of FRDs within a period of two (2) years months from the Effective Date (hereinafter referred to as the “Initial Call-off Period”). The commencement and completion date for the performance of the Services (hereinafter referred to as “Commencement Date” and “Completion Date”, respectively) will be set out in the respective FRD. This sub-Clause 3(b) shall also apply to any extension exercised under sub-Clause 3(c) below.

(c) The Commission shall have the option to extend the Initial Call-off Period for two (2) years, subject to the availability of funds, under the same terms and conditions as those of this Contract. The Commission will inform the Contractor about its intention to extend the Contract at least one (1) month prior to the expiry of the Initial Call-off Period. The optional extension shall be implemented through a written notification to the Contractor by the Commission.
4 STANDARD OF WORK

The Contractor shall perform the Work in a workmanlike manner in conformity with standard professional practices, using qualified personnel and in strict accordance with the Contract. The Contractor shall furnish the highest skill and judgement and cooperate with the Commission, including all the Commission's consultants and agents, in best furthering the interests of the Commission and the aim of this Contract. The Contractor shall provide efficient business administration and supervision, and it shall perform the Work in the best way and in the most expeditious and economical manner consistent with the requirements of the Contract.

5 RESPONSIBILITIES OF THE CONTRACTOR

(a) The Contractor shall provide the Services described in FRD and Annex B.

(b) The Contractor shall provide qualified English-speaking personnel as necessary to perform the Services under this Contract. The key persons shall be available for possible tasks related to the Services throughout the duration of the Contract period. Any replacement of the key personnel shall be made in accordance with Clause 7 of Annex A and Annex B.

(c) In case of development of software, the Contractor acknowledges that after the completion of the Services under this Contract, the Commission shall own the Software and source code based on the Services described in Annex B and the Contractor shall have no rights in that Software or source code unless granted by the Commission under Clause 23 of this Contract.

6 ORGANISATION OF CONTRACT IMPLEMENTATION

(a) During the term of the Contract, the Commission has the right, but not the obligation, to initiate performance of the Services through the issuance of individual FRDs in accordance with Sections IV.1 and IV.2 of Annex B based on the firm fixed unit prices set out in Annex C. The Contractor shall not perform any Services or Work if not requested by the Commission through FRD. However, the Contractor may propose the Service for the Commission’s evaluation.

(b) The FRD, issued by the Commission, shall be the basis for acceptance, invoicing and payment for any Services of Work performed by the Contractor.
(c) The performance of the Services shall be made in full in accordance with the respective FRD. Partial delivery of the Service or Work shall not be accepted and reimbursed without prior written agreement by the Commission.

(d) The Services requested through FRD can neither individually nor combined exceed any quantities of labor, travels, and DSA specified in the related FRD.

(e) The Services shall be performed at the place(s) and within the approved Work Plan specified in the relevant FRD.

(f) The Commission may revise FRD and the Services or Work as and when it may deem necessary.

7 WARRANTY

(a) The provisions of Clause 28 of Annex A shall apply to the Works performed by the Contractor.

(b) The Contractor shall ensure that the Commission shall experience no loss of service or support level by sub-contractors acting on behalf of the Contractor.

8 PERMITS, NOTICES, LAWS AND ORDINANCES

(a) The Contractor shall obtain and pay for all permits and inspections necessary for the proper execution and completion of the Services that are customarily obtained upon execution of this Contract and that are legally required at the time the Proposal is received by the Commission.

(b) The Contractor shall give all notices required by the nature of the Services.

(c) If the Contractor notices that the Services or any part thereof required under this Contract is not in accordance with applicable laws and Rules, or with technical or safety standards, it shall promptly notify the Commission thereof in writing.

9 PROTECTION OF PERSONS AND PROPERTY

(a) The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programmes in connection with the Services.

(b) The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury and loss to:
(i) all employees on the Commission’s premises and all other persons who may be affected thereby;

(ii) all the Work, Equipment, its spare parts, materials and supplies to be incorporated therein, whether in storage on or off the Commission’s premises, which are under the care, custody or control of the Contractor or any of its sub-contractors; and

(iii) other property on the Commission’s premises or adjacent thereto.

(c) The Contractor shall give all notices and comply with all applicable laws and Rules bearing on the safety of persons and property and/or their protection from damage, injury and loss.

(d) The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for the safety and protection of persons and property, including posting danger signs and other warnings against hazards and promulgating safety regulations.

(e) When the use or storage of combustible, explosive or other hazardous materials is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.

(f) The Contractor shall be responsible for the prevention of accidents on the Commission’s premises during the execution of the Work.

(g) In any emergency affecting the safety of persons or property, the Contractor shall promptly act to prevent threatened damage, injury and loss.

(h) The Contractor shall promptly remedy all damage and loss to any property, referred to in Sub-Clause (b) above, caused in whole or in part by the Contractor, any sub-contractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable and for which the Contractor is responsible under Sub-Clause (b) above, except damage and loss attributable to the acts or omissions of the Commission or anyone directly or indirectly employed by it, or of anyone for whose acts the Commission may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to its obligations under Clause 9 of Annex A.

10 RESPONSIBILITIES OF THE COMMISSION

The Commission shall designate members of its staff to act as points of contact for the Contractor to ensure that the Services are carried out in accordance with Annexes B and C, and the related FRD, and shall promptly notify the Contractor thereof. The Commission shall respond promptly to requests for information by the Contractor regarding the Services.
11 PRICES

(a) For each FRD the Commission shall pay to the Contractor, in consideration of the full and proper performance of its obligations under the Contract, the amount based on the firm fixed daily rates of the Services pursuant to Annex C, DSA, plus the actual costs, not to exceed the estimated costs with more than 10% under each issued FRD, unless specified otherwise by the Commission.

(b) The firm fixed daily rates of the Services shall be held unchanged for the period indicated in Clause 3 above and shall exclude any applicable Taxes, fees, duties and charges owed by the Contractor in respect to the Services at the conclusion or implementation of this Contract. No Taxes are applicable under this Contract.

(c) The Prices shall cover all costs and expenses, excluding Taxes, incurred by the Contractor for the full and proper performance of all obligations under the Contract (including travel, allowances, management and remuneration of the personnel, national income tax, medical insurance, and social security contributions). It also includes the Services performed by the Contractor’s personnel outside the Commission’s normal working hours.

(d) The Contractor shall not do any work, provide any materials or equipment, or perform any Services, which may result in any charges to the Commission over and above the issued FRD without the prior written consent of the Commission and a formal written revision of this FRD.

(e) The Contractor shall be reimbursed by the Commission for such Taxes on the basis of actual amounts paid and duly documented by the Contractor as per Clause 12 below.

(f) If applicable, per diem charges (DSA), which cover lodging, meals and incidental travel expenses, shall be based on the United Nations Daily Subsistence Allowance (UN DSA) rates effective at the time of the respective travel (the FRD shall include the UN DSA rates applicable at the time of issuance of the FRD), unless specified otherwise by the Commission.

(g) If applicable, the actual travel costs, excluding DSA, shall be based on simple economy return tickets for most direct route, not to exceed the estimated travel costs pursuant to the relevant FRD and sub-Clause 11 (a) above.
12 PAYMENT TERMS

(a) The payment to the Contractor shall be made upon satisfactory completion of each FRD or each deliverable under an FRD, as applicable, and the submission of the following:
   i) Invoice drawn up in accordance with this sub-Clause 12 (e) below;
   ii) Any other documentation and/or other deliverable that might be required under the applicable FRD.

(b) If Annex C includes other costs that are firm fixed prices and not related to the issuance of FRD, such other costs shall be paid upon satisfactory completion of the Services under the relevant FRD and the submission of the following:
   i) Invoice drawn up in accordance with this sub-Clause 12 (e) below;
   ii) Any other documentation and/or other deliverable that might be required.

(c) The Commission shall make the payments to the Contractor on the basis of an invoice submitted by the Contractor. All payments shall be made within 30 (thirty) days of the receipt and acceptance of the invoice, provided that the Services have been satisfactorily completed and accepted by the Commission.

(d) The making of any payment hereunder by the Commission shall not be construed as an unconditional acceptance by the Commission of the Services accomplished by the Contractor up to the time of such payment.

(e) The Contractor shall submit an invoice electronically, from the Contractor’s official e-mail address in PDF format, duly signed and stamped by the Contractor and submitted to the Commission’s email addressed specified under Clause 21 below. Each invoice shall contain the Contract number (CTBTO and SAP numbers), detailed banking instructions, including the name and address of the Contractor’s bank, account number, account holder’s name and SWIFT, IBAN and/or ABA codes for payment by electronic transfer.

(f) Applicable Taxes payable by the Contractor and/or its sub-contractor(s) in respect of the Services shall be invoiced separately or be separately identified on the invoice. Actual payment of the Taxes must primarily be supported by original documentation such as bank account statements, transfer orders, or receipts issued by the local tax or customs authorities. If submission of such original documentation is not possible for justifiable reasons, their copies could be accepted by the Commission provided that they are duly signed and certified by local tax or customs authorities. In case the currency in which the
Taxes are levied is not the currency of the Contract, bank statements (or equivalent) showing the exchange rate used for the conversion should be submitted to the Commission, in addition to any other supporting documentation.

13 TEMPORARY SUSPENSION OF WORK

The Commission may, at any time, temporarily suspend the Work, in whole or in part, being performed by the Contractor under this Contract by giving 30 (thirty) days’ advance notice in writing to the Contractor. The Work so suspended shall be resumed by the Contractor on the basis of a revised time schedule and on terms and conditions to be mutually agreed upon between the Parties.

14 DELAYS AND EXTENSION OF TIME

(a) If the Contractor is delayed at any time in the progress of the Work by any act or omission of the Commission or by any of its employees, or by any other contractor employed by the Commission, or by changes in the Work ordered by the Commission, or by any causes beyond the Contractor’s reasonable control, or by any other cause which the Commission determines may justify the delay, then the time for completion of the Work shall be extended by an amendment to this Contract in accordance with Clause 20 below for such reasonable time as the Commission may determine.

(b) Any request for extension of the time for reasons referred to in sub-Clause 14(a) above shall be submitted to the Commission not later than 20 (twenty) days after the commencement of the delay, otherwise said request shall be deemed to be waived. Such request shall state grounds for the delay and shall provide an estimate of the probable effect of such delay on the progress of the Work.

15 CONTRACTOR’S CLAIMS AND REMEDIES

In no event shall the Contractor make any claim against the Commission for or be entitled to additional costs or compensation resulting from any delays in the progress or completion of the Services or any portion thereof, whether caused by the acts or omissions of the Commission, including, but not limited to, damages related to overheads, loss of productivity, acceleration due to delay and inefficiency. The Contractor’s sole remedy in such event shall be an extension of time for completion of the Services, provided the Contractor otherwise meets the requirements and conditions set forth in this Contract.
16 ENTIRE AGREEMENT

This Contract represents the final agreement in respect of the Services and shall supersede all prior agreements and representations between the Parties in this respect. Annexes A to C shall constitute integral parts of this Contract and shall be of full force and effect.

17 DISCREPANCIES

If there are discrepancies or conflicts between any of the documents that are part of this Contract, the document to prevail shall be given precedence in the following order:

(i) this document;
(ii) General Conditions of Contract (Annex A);
(iii) Terms of Reference (Annex B);
(iv) Contractor’s Proposal (Annex C); and
(v) the relevant FRD.

18 SEVERABILITY

If any term and/or provision of this Contract is, or becomes invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions of this Contract shall not in any way be affected or impaired thereby.

19 NO WAIVER

Failure by a Party to enforce a right shall not be deemed to be a waiver of that right unless otherwise expressly provided in this Contract.

20 CONTRACT AMENDMENT

No modification of, or change in, this Contract, or waiver of any of its provisions, or additional contractual relationship with the Contractor shall be valid unless approved in the form of a written amendment to this Contract, signed by duly authorized Representatives of the Contractor and of the Commission.
TRANSMISSION OF NOTICES AND OTHER DOCUMENTS

Notices, invoices, reports and other documentation under the Contract shall be delivered or sent to the relevant Party as follows (or to such person/title, address, facsimile number or email address as the Party may substitute by notice after the date of the Contract):

(a) The Commission:
   For Contractual Issues:
   Chief, Procurement Section
   Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO)
   Vienna International Centre
   Wagramerstrasse 5, P.O. Box 1200
   1400 Vienna, Austria
   Tel: + (43 1) 26030 6350
   E-mail: procurement@ctbto.org

   For invoices and related enquiries:
   Accounts Payable
   CTBTO Financial Services Section
   Vienna International Centre
   Wagramerstrasse 5, P.O. Box 1200
   1400 Vienna, Austria
   Tel: + (43 1) 26030 6292
   E-mail Payments@ctbto.org

(b) The Contractor:
   Tel Office:
   Mobile:
   Email:

22 Effectiveness

(a) Except as provided below, any communication in connection with the Contract will be deemed to be given as follows:

(i) if delivered in person, at the time of delivery;
(ii) if by registered mail or courier, when received;
(iii) if by electronic communication, when retrievable by the Commission in document form.

(b) A communication given under Clause 22(a) above that is received or becomes retrievable on a non-working day or after business hours at the seat of the Commission will only be deemed to be given on the next working day of the Commission.
The Commission hereby grants the Contractor a non-exclusive, non-transferable, irrevocable license to use the Software for the duration of the Contract and for the purpose of doing the Work under the Contract. The use of the source code is only for the duration of the Contract and for the Work required under the Contract. All title, ownership rights and intellectual property rights in and to the Software shall remain with the Commission. The Contractor acquires no title, right or interest in the Software, other than the license(s) specifically granted herein by the Commission.
IN WITNESS hereof, the duly authorized Representatives of the Parties have executed this Contract:

For and on behalf of the PREPARATORY COMMISSION FOR THE COMPREHENSIVE NUCLEAR-TEST-BAN TREATY ORGANIZATION:

[Name, Position/Title]

Date: _________________  Place: Vienna, Austria

For and on behalf of [CONTRACTOR]:

[Name, Position/Title]

Date: _________________  Place: ______________________
LIST OF ANNEXES

ANNEX A: THE COMMISSION’S GENERAL CONDITIONS OF CONTRACT

ANNEX B: THE COMMISSION’S TERMS OF REFERENCE

ANNEX C: THE CONTRACTOR’S PROPOSAL
ANNEX A

General Conditions of Contract

1. DEFINITIONS

(a) In these general conditions of contract the terms beginning with a capital letter shall have the meaning as defined in the Contract.
(b) “Services” means all services to be rendered under the Contract.
(c) “Goods” shall mean all goods, equipment, materials and/or other supplies to be provided under the Contract.
(d) “Taxes” shall mean all direct and indirect taxes (including value added tax, general sales tax or goods and services tax), assessments, fees, customs duties, liens and charges in as much as they are levied in conclusion or implementation of the Contract, including customs restrictions and charges of similar nature in respect of articles imported or exported for the Commission’s official use.

2. LEGAL STATUS

The Contractor shall be considered as having the legal status of an independent contractor vis-à-vis the Commission. Neither the Contractor and any subcontractor, nor their personnel shall be considered to be an employee or an agent of the Commission.

3. ASSIGNMENT

The Contractor shall not assign, transfer, pledge or make other disposition of the Contract or any part thereof, or any of the Contractor’s rights, claims or obligations under the Contract except with the prior written consent of the Commission.

4. SUBCONTRACTING

In the event the Contractor requires the services of one or more subcontractors, the Contractor shall obtain the prior written approval and clearance of the Commission for such subcontractor(s). The Commission’s approval of a subcontractor shall not relieve the Contractor of any of his obligations under the Contract, and the terms of any subcontract shall be subject to and in conformity with the provisions of the Contract.

5. SOURCE OF INSTRUCTIONS

(a) The Contractor shall neither seek nor accept instructions from any authority external to the Commission in connection with the performance of its obligations under the Contract. The Contractor shall refrain from any action which may adversely affect the Commission and shall fulfil its commitments with the fullest regard to the interests of the Commission.
(b) While present at the Commission’s premises, personnel of the Contractor shall, at all times, obey and conform to all requests and instructions of the Commission’s officials and the United Nations Security Staff.

6. CONTRACTOR’S RESPONSIBILITY FOR EMPLOYEES

The Contractor shall be responsible for the professional and technical competence of its employees and will select, for the performance under the Contract, reliable individuals who will perform effectively in the implementation of the Contract, respect the local customs and conform to a high standard of moral and ethical conduct.

7. ASSIGNMENT OF PERSONNEL

(a) The Contractor shall not replace or withdraw any personnel referred to in the Contract for the performance of the Services without the prior written approval of the Commission or unless requested by the Commission.
(b) Prior to assignment, replacement or withdrawal of personnel for the performance of the Services, the Contractor shall submit to the Commission for its consideration, the curriculum vitae or detailed justification to permit evaluation by the Commission of the impact which such assignment, replacement or withdrawal would have on the Services.
(c) In the event of withdrawal of personnel, all costs and additional expenses resulting from the replacement, for whatever reasons, of any of the Contractor’s personnel shall be for the account of the Contractor. Such withdrawal shall not be considered as termination in part or in whole of the Contract.

8. CONFLICT OF INTEREST

No employee, officer, adviser, agent and/or subcontractor of the Contractor assigned to perform Services under the Contract shall engage, directly or indirectly, in any business, profession or occupation connected or related to the Services or Goods to be provided under the Contract if this constitutes a conflict of interest.
9. INSURANCES

(a) The Contractor shall provide and thereafter maintain appropriate insurance, or its equivalent, with respect to its employees to cover claims for personal injury or death in connection with the Contract.

(b) The Contractor shall provide and thereafter maintain insurance against all risk in respect of its property and any equipment used for the execution of the Contract.

(c) The Contractor shall also provide and thereafter maintain liability insurance in an adequate amount to cover third party claims for death, bodily injury, loss of and damage to property arising from any operations carried out by the Contractor in performing its obligations in connection with the Contract or from operation of any vehicles, boats, airplanes and other equipment owned or leased by the Contractor or its agents, servants, employees or subcontractors.

(d) Except for insurance mentioned in paragraph (a), the insurance policies under this clause shall:

   (i) Name the Commission as additional beneficiary;
   
   (ii) Include a waiver of subrogation of the Contractor’s rights to the insurance carrier against the Commission.

(e) The Contractor shall, upon request, provide the Commission with satisfactory evidence of the insurance required under the Contract.

(f) Any amounts not insured, not recovered from or not claimed by the insurer shall be borne by the Contractor.

(g) Information concerning reduction of coverage shall be furnished by the Contractor to the Commission with at least thirty (30) days prior written notice.

(h) The Contractor undertakes that provisions to the same effect as the provisions in sub-clauses (a) through (c) above will be inserted in all subcontracts made in performance of the Contract, except sub-contracts exclusively for furnishing Goods.

10. ENCUMBRANCES/LIENS

The Contractor shall not cause or permit any lien, attachment or other encumbrance by any person to be placed on file in any public office or on file with the Commission against any monies due or to become due for any Services or Goods provided under the Contract, or by reason of any other claim or demand against the Contractor.

11. OBSERVANCE OF THE LAW

(a) The Contractor shall comply with all laws, ordinances, rules and regulations, including but not limited to health, environmental and labour laws bearing upon the performance of its obligations under the terms of the Contract.

(b) In particular, the Contractor shall comply with the labour laws of the country in which the Services or Goods are to be furnished providing for benefits covering injury or death in the course of employment.

12. CONFIDENTIALITY

(a) All technical, financial or other documentation and data the Contractor compiled for or received from the Commission under the Contract shall be treated as confidential and shall be delivered only to the Commission’s authorized officials on completion of the Services or as requested by the Commission.

(b) Either Party acknowledges that all knowledge and information concerning the other Party that may be acquired in connection with the performance of its obligations under the Contract, including but not limited to, any information relating to its operations and procedures, are confidential and proprietary information of the other Party and it shall receive such confidential and proprietary information of the other Party in confidence and shall not disclose or permit disclosure of any such knowledge or information to any person and/or entity without the prior written consent of the other Party.

(c) The Contractor shall not, at any time, use such confidential information to its own advantage.

(d) The restrictions on confidentiality shall not apply to the information which:

   (i) presently is in the public domain;
   
   (ii) hereafter becomes part of the public domain without the other Party’s fault;
   
   (iii) was in the possession of the other Party at the time of the disclosure, as shown by written evidence;
   
   (iv) is disclosed to the other Party at any time hereafter by a third Party.

   (v) is required to be disclosed to governing bodies, or to governmental authorities to the extent required by law or to obtain needed authorization to perform the Contract or pursuant to reporting requirements imposed by those governing bodies or the government of the State of the Contractor.

(e) These obligations do not lapse upon satisfactory completion of the Services, delivery of the Goods or termination of the Contract by the Commission.

13. LANGUAGES, WEIGHTS AND MEASURES

Unless otherwise specified in the Contract, the English language shall be used by the Contractor in all written communications to the Commission with respect to the Services or Goods to be provided and all documents procured or prepared by the Contractor. The Contractor shall use metric units, except when otherwise specified in the Contract.

14. PUBLICITY

(a) The Contractor shall not advertise or otherwise make public the fact that it is providing or has provided Services and Goods for the Commission. Also, the Contractor shall not, in any manner whatsoever, use the name, emblem or official seal of the Commission or any abbreviation of the name of the Comprehensive Nuclear-Test-Ban Treaty Organization in connection with its business or otherwise.

(b) These obligations do not lapse upon satisfactory completion of the Services, delivery of the Goods or termination of the Contract.
15. OFFICIAL NOT TO BENEFIT/CONTINGENT FEES

(a) The Contractor warrants that:

(i) No person or selling agency has been employed or retained by it to solicit or secure the Contract upon an agreement or understanding for a commission, percentage, brokerage, contingent fee or retainer, except regular employees or bona fide and officially established commercial or selling agencies maintained by the Contractor for the purpose of securing business;

(ii) No official or servant or retired employee of the Commission who is not a regular employee of the Contractor, has been or shall be admitted by the Contractor to any direct or indirect benefit arising from the Contract or the award thereof.

(b) In case of breach by the Contractor of the warranties referred to in previous clauses, the Commission shall have the right to deduct from the Contract Price, or otherwise recover from the Contractor, the full amount of any such commission, percentage, brokerage, contingent fee or retainer so paid.

16. INTELLECTUAL PROPERTY AND OTHER PROPRIETARY RIGHTS

(a) Except to the extent the Contractor has granted a license to the Commission, the Commission, shall be entitled to all intellectual property, including but not limited to copyrights, patents and trademarks, with regard to products, documents or other materials which bear a direct relation to or are produced or collected under the Contract. The Contractor shall take all necessary steps, prepare and process all necessary documents and assist in securing such property rights and transferring them to the Commission and/or to the government where the Services or Goods are to be provided, in compliance with the requirements of the applicable law.

(b) The Contractor declares that it does not know of any intellectual property rights of third parties, which might be infringed in the execution of the Contract. Should, contrary to the Contractor’s expectation, claims be raised against the Commission charging it with infringement of intellectual property rights, the Contractor shall hold harmless the Commission and shall indemnify it to the full extent of any damages or awards arising from such claims. This obligation of the Contractor shall continue to be in full force and effect up to the expiration of such intellectual property rights.

(c) The Commission shall give the Contractor due notice in writing of any charges of infringement brought against the Commission and of the filing of any suit for infringement of intellectual property rights of third parties due to the execution of the Contract, and, without prejudice to the immunity enjoyed by the Commission as an international organization from every form of legal process, including enforcement and execution, the Commission shall give the Contractor the opportunity to defend the Commission against the said suit at its discretion and shall not, without the Contractor’s consent in writing, make any admission or consent to any claim of any third party, which might be prejudicial to the Contractor’s position.

17. DEFAULT BY THE CONTRACTOR

(a) In case the Contractor fails to fulfil its obligations and responsibilities under the Contract and provided the Contractor has not remedied such failure(s) within thirty (30) days of having been given written notification by the Commission of the nature of the failure(s), the Commission may, at its entire discretion and without prejudice to its right to withhold payment(s), hold the Contractor in default under the Contract.

(b) When the Contractor is thus in default, the Commission may, by giving written notice to the Contractor, terminate the Contract as a whole or such part or parts thereof in respect of which the Contractor is in default. Upon such notice, the Commission shall have the right to seek completion, at the Contractor’s expense, of that part or those parts of the Contract with respect to which the Contractor is in default.

(c) The Contractor shall, in this case, be solely responsible for any reasonable costs of completion of the Services and/or delivery of Goods, including such costs, which are incurred by the Commission over and above the originally agreed Contract Price.

18. WITHHOLDING OF PAYMENT

(a) The Commission may withhold any payment to the Contractor or, on account of subsequently discovered evidence, nullify the whole or part of any payment approval theretofore given, to such an extent as may be necessary to protect the Commission from loss under the Contract on account of:

(i) The Contractor’s failure to carry out its obligations or to make adequate progress with the obligations, except for failure arising out of force majeure;

(ii) The Contractor’s failure to remedy unsatisfactory performance, when such failure has been drawn to his attention by the Commission;

(iii) The Contractor’s failure to submit on time the reports required.

(b) The withholding by the Commission of any interim payment shall not affect the Contractor’s obligation to continue performance of his obligations under the Contract.

(c) No interest shall accrue on payments eventually withheld by the Commission in application of the stipulations of this paragraph.

19. LIQUIDATED DAMAGES

Subject to Clause 20 below (force majeure), if the Contractor fails to deliver any or all of the Services and/or Goods within the latest time period(s) specified in the Contract, the Commission may, without prejudice to its other remedies under the Contract, deduct from the Contract Price as liquidated damages, a sum equivalent to 0.2 per cent of the portion of the Contract Price for the delayed Services and/or Goods for each working day of
delay until actual performance, up to a maximum of sixty (60) working days. The recovery by the Commission of proven damages shall not be excluded.

20. FORCE MAJEURE

(a) Force majeure as used herein shall mean acts of God, industrial disturbances, acts of the public enemy, civil disturbances, explosions and any other similar cause of equivalent force not caused by nor within the control of either party and which neither party is able to overcome.

(b) 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 Commission of such force majeure if the Contractor is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities under the Contract.

(c) In this event, the following provisions shall apply:

(i) The obligations and responsibilities of the Contractor under the Contract shall be suspended to the extent of its inability to perform them and for as long as such inability continues;

(ii) The term of the Contract shall be extended for a period equal to the period of suspension taking, however, into account any special conditions which may cause the time for completion of the obligations to be different from the period of suspension;

(iii) If the Contractor is rendered permanently unable, wholly or in part, by reason of force majeure to perform its obligations and meet its responsibilities under the Contract, the Commission shall have the right to terminate the Contract on the same terms and conditions as are provided for in the Termination Clause of the Contract, except that the period of notice may be seven (7) days instead of thirty (30) days;

(iv) For the purpose of the preceding sub-clause, the Commission may consider the Contractor permanently unable to perform in case of any period of suspension in excess of ninety (90) days. Any such period of ninety (90) days or less shall be deemed temporary inability to perform.

21. INSOLVENCY AND BANKRUPTCY

Should the Contractor be insolvent, adjudged bankrupt, or should the Contractor make a general assignment for the benefit of its creditors, or should a receiver be appointed on account of the Contractor’s insolvency, the Commission may, without prejudice to any other right or remedy it may have under the terms of the Contract, terminate the Contract forthwith by giving the Contractor written notice of such termination.

22. INDEMNIFICATION

The Contractor shall indemnify, hold and save harmless and defend at its own expense the Commission, its officers, agents, servants and employees from and against all suits, claims, demands and liability of any nature or kind, including cost and expenses arising out of acts or omissions of the Contractor or its employees or subcontractors in the performance of the Contract. This requirement shall extend, inter alia, to claims or liabilities in the nature of workers’ compensation and to claims or liabilities pertaining to intellectual property rights. The obligations under this clause do not lapse upon termination of the Contract.

23. AMICABLE SETTLEMENT

The parties shall use their best efforts to settle amicably through negotiation any dispute, controversy or claim arising out of, or relating to, the Contract or the breach, termination or invalidity thereof. If the parties cannot reach such amicable settlement through negotiations, the matter shall first be referred to conciliation, by a request by either party for conciliation procedures. The conciliation shall take place in accordance with the United Nations Commission on International Trade Law (UNCITRAL) Conciliation Rules then prevailing, or according to such other procedure as may be agreed between the parties, within a time period of ninety (90) days. There shall be one conciliator. The conciliation shall be in Vienna, Austria, and it shall be conducted in the English language.

24. ARBITRATION

(a) In the event of a failure to reach an amicable settlement in accordance with Clause 23 above (amicable settlement), any dispute arising out of the interpretation or application of the terms of the Contract or any breach thereof shall be settled in accordance with the arbitration rules established by UNCITRAL as at present in force. The number of arbitrators shall be one. The arbitration shall be in Vienna, Austria, and it shall be conducted in the English language.

(b) The arbitrator shall take into account the internationally recognized general principles of commercial transactions. The arbitrator shall have no authority to award punitive damages, nor to award interest in excess of five (5) per cent, and any such interest shall be simple interest only. The parties shall be bound by any arbitration award rendered as a result of such arbitration as the final adjudication of any such dispute.

25. PRIVILEGES AND IMMUNITIES

Nothing in or relating to the Contract shall be deemed a waiver of any of the privileges and immunities of the Commission and its employees.

25(a). TAX EXEMPTION

In principle, the Commission is exempt from all Taxes. Since the arrangement under which such exemption is respected varies from country-to-country, the Contractor shall collaborate with the Commission to achieve Tax exemption at source or to pursue reimbursement of Taxes paid by the Commission, as the case may be.

26. TERMINATION

The Commission may terminate the Contract in whole or in part, and at any time, upon thirty (30) days’ notice of
termination to the Contractor. In the event such termination is not caused by the Contractor’s negligence or fault, the Commission shall be liable to the Contractor for payment in respect of Services already satisfactorily accomplished or Goods delivered and accepted and in conformity with the terms of the Contract, for necessary terminal expenses of the Contractor, and for the cost of such urgent work as is essential and as the Contractor is asked by the Commission to complete. The Contractor shall keep expenses at a minimum and shall not undertake any forward commitment from the date of receipt of the Commission’s notice of termination.

27. GOODS

In the event that the Contract requires the Contractor to supply Goods, the following clauses shall apply in addition to the above.

28. WARRANTY

(a) The Contractor warrants that the Goods, including packaging, conform to the specifications for the Goods ordered under the Contract and are fit for the purpose for which such Goods are ordinarily used and for purposes expressly made known to the Contractor by the Commission, and are new and free from defects in design, workmanship and materials.

(b) This warranty shall remain valid for twenty-four (24) months after the Goods or any part thereof have been delivered and accepted, whichever is later, unless the Contractor has granted a longer period. Should the Commission transfer the title of the Goods to a third party during the warranty period, the right to enjoy the warranty shall be transferable to the new title-holder.

(c) If, during the warranty period mentioned in Sub-clause (b) above, the Goods or any part thereof are found to be defective or not in conformity with the specifications under the Contract, the Contractor shall, upon notification, promptly and at its own expense correct all such defects and non-conformities. If these defects and non-conformities cannot be corrected, the Commission shall have the right, at the Contractor’s expense, to either demand replacement of the defective item, or receive appropriate reimbursement, or have the defective item repaired or otherwise procured from a third party.

29. INSPECTIONS AND TESTS

(a) The Commission shall have the right to inspect and/or to test the Goods to confirm their conformity to the technical specifications. The technical specifications shall specify what inspections and tests the Commission requires.

(b) The inspections and tests may be conducted on the premises of the Contractor or its subcontractor(s), at a point of delivery designated by the Commission and/or at the Goods’ final destination. The Contractor shall give all reasonable facilities and assistance-including drawings and production data-to the Commission at no charge to the Commission.

(c) Should any inspected or tested Goods fail to conform to the technical specifications, the Commission reserves the right to reject them and the Contractor shall either replace the rejected Goods or make all alterations necessary to meet specification requirements free of cost to the Commission.

(d) The Commission’s right to inspect, test and, where necessary, reject the Goods after the Goods’ arrival at the point of delivery designated by the Commission or at the Commission’s offices, shall in no way be limited or waived by reason of the Goods’ having previously been inspected, tested and passed by the Commission.

(e) Nothing in this Section on Inspections and Tests shall in any way release the Contractor from any warranty or other obligations under the Contract.

(f) All equipment/material supplied under the Contract may be subject to pre-shipment inspection by a third party to be specified by the Commission. The Contractor is not liable for cost of this inspection.

30. PACKING

The Contractor shall comply or ensure compliance with the following provisions concerning packing:

(a) The Goods shall be packed as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit.

(b) In the case of a cross-border shipment, the Goods shall have appropriate export packing. If necessary, all cases/crates must be wrapped inside with heavy-duty plastic lined paper, should be steel-strapped and must be able to withstand tough handling. Skids for truck handling are imperative if the gross weight is more than 30 kilograms.

(c) The consignment shall be marked and shipped as per address shown on the Purchase Order Form.

(d) Neither partial delivery nor transhipment shall be made unless specifically agreed by the Commission in writing.

(e) Each case/crate/package shall carry a consecutive number, dimensions, volume, and weight (i.e. Case No. X of Y cases, A x B x C cm, E m3, D Kg.) and shall be marked as follows:

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EQUIPMENT FOR
THE PREPARATORY COMMISSION FOR THE
COMPREHENSIVE NUCLEAR-TEST-BAN
TREATY ORGANIZATION.
[point of delivery]
```

```
PURCHASE NO.______________________
GROSS WEIGHT _______________________
NET WEIGHT _________________________
```

(f) Markings shall be done with weatherproof materials. All non-containerized Goods shall be shipped below deck.

(g) Each case/crate/carton shall carry (outside) a copy of the packing list describing the contents of the case/crate/carton. Outside Case No. 1 should be
attached with invoice covering the actual delivery. The accompanying papers must be made out in the English language.

(h) Prior to delivery, a fax (or a letter by courier service) shall be sent to the consignee, if any, advising of the following:
- purchase order/Contract number;
- waybill number or equivalent reference number of the shipment (if any);
- number of boxes/cartons/crates/etc.;
- estimated time of departure (ETD);
- point of departure and name of freight carrier;
- estimated time of arrival (ETA) to final destination.

(i) The following documents shall be enclosed with the shipment in case of shipping by air:
- airway bill;
- proforma or commercial invoice;
- packing list.

(j) The above documents are indispensable and must reach the consignee, if any, on time to permit customs clearance and in order to avoid demurrage charges.

31. DELIVERY AND TRANSPORTATION

(a) Delivery of the Goods shall be made by the Contractor in accordance with the terms specified in the Contract, and the Goods shall remain at the risk of the Contractor until delivery has been completed.

(b) Transport of the Goods to the port of discharge or such other point in the country of destination and/or forwarding to the consignee, if any, (door-to-door) specified in the Contract shall be arranged and paid for by the Contractor and the cost thereof shall be included in the Contract Price.

32. TAKE-OVER/HAND-OVER

Upon successful completion of delivery or of installation and a testing and evaluation period, as specified in the Contract, responsibility for the Goods will be handed over to the consignee or other designated entity.

33. EXPORT LICENCES

If an export licence or any other governmental authorization is required for the Goods, it shall be the obligation of the Contractor to obtain such licence or governmental authorization. In the event of failure to obtain such licence or authorization within reasonable time, the Commission may declare the Contract null and void.

34. SPARE PARTS

In accordance with the Contract, the Contractor may be required to provide any or all of the following materials and notifications pertaining to spare parts manufactured and/or distributed by the Contractor:

(a) Such spare parts as the Commission may choose to purchase from the Contractor, provided that the Contractor is not relieved of any warranty obligations under the Contract;

(b) In the event of termination of production of the spare after delivery of the Goods:
   (i) advance notification to the Commission of the pending termination, in sufficient time to permit the Commission to place a final order;
   (ii) following such termination, furnishing at no cost to the Commission, the blueprints, drawings and specifications of the spare parts, if and when requested.

35. UNITED NATIONS CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS

Questions concerning matters arising under the Contract, but not settled in it, shall be settled in conformity with the United Nations Convention on Contracts for the International Sale of Goods (Vienna, 1980), which shall be applicable to the Contract. The applicable language version of the Convention shall be the version in which the Contract is written.

1 April 2016
ANNEX B

TERMS OF REFERENCE

FOR THE PROVISION OF

DOWNTIME ANALYSIS AND STATION EQUIPMENT FAILURE STATISTICS
FOR IMS STATIONS

V.3
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I. INTRODUCTION

The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (hereinafter referred to as “the Commission”) operates a global verification regime to monitor compliance with the Comprehensive Nuclear-Nuclear-Test-Ban Treaty (CTBT). It provides timely data, assessments and other products and services to Signatory States of the Treaty. The International Monitoring System (IMS), consisting of 337 monitoring facilities worldwide, is managed from the Commission’s International Data Centre (IDC) in Vienna, Austria.

With the objective of building up and maintaining the IMS network operational, reliable and in tune with the latest technological and scientific advancements, the Commission seeks to establish a new Contract for the provision of downtime analysis and station equipment failure statistics for IMS stations.

II. BACKGROUND INFORMATION

II.1 Description of the International Monitoring System (IMS)

The Commission operates an IMS as part of the global verification regime foreseen under the CTBT to provide global monitoring for the detection of nuclear explosions.

The IMS consists of a worldwide network of 321 seismic (primary seismic (PS), auxiliary seismic (AS)), hydroacoustic (HA), infrasound (IS) and radionuclide (RN) monitoring stations supported by 16 radionuclide laboratories (RL). The IMS facilities transmit data using a closed and secure satellite communications network via the Global Communications Infrastructure (GCI) using very small aperture terminal (VSAT) technology to the IDC in Vienna. The IDC supports the verification responsibilities of the States Parties to the Treaty by providing products and services necessary for effective global monitoring.

The IMS network is required to be in continuous operation with high data availability requirements in the IDC, which can be summarized as 98% for seismic, hydroacoustic and infrasound stations and 95% for radionuclide monitoring stations. Most IMS stations are located in remote parts of the world and in extreme environments. The network includes new stations as well as existing infrastructure of multiple parent networks, station owners and operators, which makes it heterogeneous in terms of both the equipment and the organization and capabilities of the local institutions provisionally operating the network.

II.2 Brief description of IMS Stations

The web-site of the Commission contains general descriptions of several IMS Stations (link: http://www.ctbto.org/verification-regime/featured-stations/).

Seismic stations can consist of three-component stations (i.e. with a single measuring point) and array stations (i.e. with multiple measuring points). Seismic array and infrasound IMS stations are array stations consisting of 4 to over 40 measuring points, referred to as “array elements”, arranged in specific geometrical shapes or concentrically, with circle diameters ranging from 1-10 km. At each array element there is a sensor (seismometer or microbarometer), digital to analogue converter.
(digitizer), and a communication device. The array elements either have independent power source or power is distributed from a central point.

Data are transmitted in near-real-time from the array elements (or from the single element in case of a three-component station) to a central recording facility placed either within the perimeter of the array or at a distance from the array ranging from a few to hundreds of kilometers from the central point of the array. The central facility houses a computer-based data acquisition system with power supply, power conditioning, data storage, intrusion monitoring, grounding and lightning protection. The intra-array communication system is either IP- or serial-based over a various different media, including copper wire, fiber-optic cable, terrestrial radio-frequency links and/or satellite links.

Stations in general are divided into spatially well-bordered sites. The central recording facility, array elements, repeaters are considered the “sites” of an IMS station.

Two different types of hydroacoustic stations have been chosen for use in the IMS: hydrophone and T-phase stations. Hydrophone stations of the IMS are fixed cable stations consisting of hydrophones floated above an anchor on the sea floor, with a cable to a nearby land station for data and power transmission. A triplet of hydrophones is used to enable approximate directional information to be obtained. The separation of the hydrophones in the triplet is approximately 2 km. Power and communications services are available on land through the shore cable. Data is transmitted continuously via satellite to the International Data Centre.

T-phase stations are seismic stations especially equipped to detect seismic waves coupling from underwater acoustic signals. Therefore, their specifications are identical to that of seismic stations of the IMS except for a few parameters.

Radionuclide monitoring technology is based on sampling air for radioactive particulates and noble gases. The air is analysed and measured for gamma-emitting radionuclides present in the samples. The type of radionuclides identified and measured in the samples and their ratios are used to verify if a nuclear explosion has occurred.

The components of a particulate radionuclide station consist of:

(a) Sampling equipment - for collection of large volume of airborne particulates
(b) Filter material - for trapping as many particulates as possible; after sampling, compressed or converted into geometry best suited for gamma radioactivity measurement.
(c) Detection equipment – high-purity germanium crystal with good resolution, detection efficiency and with lead shielding to reduce background radioactivity.
(d) Multi-channel analyzer, computer system, station operation software - for production of spectral raw data for transmission to the IDC for analysis.
(e) State-of-health (SOH) sensors - status of station monitors, i.e., air flow rate, detector temperature, indoor temperature and humidity, filter position monitor, power supply status, lead shield status, that could be used to interpret the measured radionuclide data.
(f) Meteorological sensors - meteorological data monitors, i.e., precipitation, temperature, wind speed, wind direction.
(g) Uninterruptible power supply & auxiliary generator - for power stability and alternate source of electrical power.

These components can be installed individually in a manually operated station or integrated in automatic systems. Noble gas systems, on the other hand, are always automatic, fully integrated
systems which share power, lightning and grounding protection and other services with the particulate
detection equipment.

II.3 IMS sustainment

IMS Sustainment is defined as the process of operation of IMS facilities indefinitely through
maintenance, replacement and recapitalization infrastructure and equipment.

Specifications and operational requirements for the IMS monitoring stations are contained in draft
IMS Operational Manuals. The Provisional Technical Secretariat (PTS) of the Commission in Vienna
supervises, coordinates and ensures the operation of the IMS in accordance with these manuals. The
Commission has contracted the operation of IMS stations to local, national institutions and private
companies under contracts with the Commission (Station Operators). The Commission’s role includes
technical and administrative management of the performance of the Station Operators and
involvement in problem detection and resolution. Unscheduled maintenance of the IMS stations, other
than minor maintenance, is performed in some cases by Station Operators, but is supported in other
cases by a third party contractor or by the PTS. The GCI, however, is installed, operated and
maintained by a single primary contractor.

The IMS support concept defines three levels of support depending on the maintenance and
engineering content in a task. If a task requires a high level of expertise and/or specialized tools or
facilities, it will be performed at a higher maintenance level. The levels are defined as follows:

O&M level 1: Preventive maintenance and servicing, preliminary diagnosis of faults and corrective
maintenance tasks of a minor nature, such as replacement of failed parts. Some
corrective maintenance by repair or replacement of parts and assemblies.

O&M level 2: More extensive corrective and repair activities involving special technical expertise,
special test equipment, production line and/or limited manufacture.

O&M level 3: Complete overhaul or re-engineering of equipment, including return to original
specifications; retrofit; mid-life improvement; extension, overhaul and end of life
replacement.

The PTS operates the IMS network through an Operations Centre in Vienna acting as a single point of
contact for Station Operators and other entities that support the IMS facilities. The PTS Operations
Section is responsible for first level incident management: identifying, logging, assigning and tracking
incidents as part of system wide incident management and providing initial assessment of required
services and response to station operators.

In support of its operations, the Commission has developed an IMS Reporting System (IRS), a
Database of the Technical Secretariat (DOTS), a State-of-Health (SOH) monitoring system and an
Alert Manager. The IRS is a JIRA-based report logging and tracking tool that manages
communications between the PTS and IMS Station Operators. The IRS is used to transmit incident
notifications, configuration change requests, outage requests and regular reports. Incidents, once
identified, are categorized into causes and statistics can be computed. The IRS is however not meant
to be a fully integrated system allowing incidents to be totally collected and collated from across the
verification system, and additional work is often required to compute and verify computed statistics.
The DOTS is also custom-built and focuses on: storing station information necessary for network
operations and support; recording configuration items and tracking changes; recording station
inventory including spare parts; providing engineering and logistics support data. The SOH monitoring system allow viewing and reporting on the condition of both hardware and software (typically computer servers, network servers, data server and application processes), and allows definition of event filters and actions with configurable alerts. The Alert Manager allows to raise attention for timely action when station mission capability is lost.

The Commission has developed a Performance Reporting Tool (PRTool), as the repository of the performance metrics and KPIs of the processes in the organization. These KPIs will include the station data availability, and IRS metrics.

### III. SCOPE OF WORK

The Commission seeks to establish one or several contracts with an Initial Call-off Period of 2 (two) years and Option to extend the Contract for additional 2 (two) years (additional Call-off Period). These Terms of Reference (hereinafter referred to as “ToR”) form the technical framework for the provision of on-site and off-site downtime analysis and station equipment failure statistics for IMS stations (hereinafter referred to as “Work” or “Services”).

The Scope of Work is divided into 2 (two) main Work Areas: “Work Area 1” and “Work Area 2”, as described in Sections IV.1 and IV.2. The third Work Area describes in Section Error! Reference source not found. “Additional Services” (Optional) that might be used in addition to the Services described in the Work Areas 1 and 2.

The Commission may engage one or more contractors for Work Area 1, Work Area 2 and Additional Services (Optional) described in Section IV.3.

Work Area 1 described in Section IV.1 covers the downtime analysis and station equipment failure statistics for the IMS radionuclide network.

Work Area 2 described in Section IV.2 covers the downtime analysis and station equipment failure statistics for the IMS SHI network.

Additional Services (Optional) are described in Section IV.3.

The Commission reserves the right to issue separate orders (Formal Requests for Delivery – “FRDs”) for all or for part of the Work required under these ToR based on qualifications and expertise within the same calendar year. The Commission may request the cross-auditing/cross-testing of Work delivered by both main Work Areas.

The estimated volume of the Work under the Initial Call-off Period is 220 (two hundred and twenty) person/days for the Services described in Work Area 1 (Section IV.1) [or 110 (one hundred ten) days/per year] and 200 (two hundred) person/days for the Services described in Work Area 2 (Section IV.2) [or 110 (one hundred) days/per year].

The estimated volume of Work under Optional Additional Services is 30 (thirty) person/days per year, as described in Section IV.3 below.
These quantities of days are the estimates and the Commission reserves the right, at its sole discretion, to call-off more, less or no person/days at all.

IV. PROVISION OF DOWNTIME ANALYSIS AND STATION EQUIPMENT FAILURE STATISTICS FOR IMS STATIONS

IV.1 Work Area 1: Downtime analysis and station equipment failure statistics for the IMS Radionuclide network

IV.1.1 Downtime Analysis for IMS Particulate Stations

1. The Contractor shall perform a downtime analysis of all IMS radionuclide particulate (RN) stations by reviewing station downtime and related failures and IRS problem reports.
2. Station downtime shall be categorized according to the failure categories defined and provided by the Commission (see Appendix I Figure 2 as an example).
3. The results of the downtime analysis shall be compiled in a FMEA (“Failure Mode and Effect Analysis”) template provided by the Commission (hereinafter referred to as “FMEA-RNP-form”). These results describe for each station their downtimes and the failure categories associated.
4. Data Availability and downtime statistics for each IMS radionuclide particulate station shall be displayed in the FMEA-RNP-form on a monthly basis for a period of 1 year backwards. Graphical distribution of downtime according to failure categories shall be displayed for the entire year.
5. Data trends shall be assessed and illustrated in graphical form. The trend of downtime distribution according to the failure categories (provided by the Commission) shall be displayed on a monthly basis backwards to 1 October 2013. Historical results computed in the past will be provided by the Commission.

IV.1.1.1 Commission’s contribution
Access to all IRS problem reports, as well as data availability and downtime numbers necessary for the FMEA will be made available to the Contractor from the Commission’s database.

IV.1.1.2 Communication
Communication between the Commission and the Contractor will be done via electronic channels, such as e-mail, fax and telephone calls.

IV.1.1.3 Deliverables
The FMEA-RNP-form shall be updated and submitted to the Commission at delivery dates which are requested by the Commission as part of each work order, with a maximum of four (4) deliveries per calendar year. The updated FMEA-RNP-Form for a certain period shall be submitted latest 20 days following the end of that period, i.e.:

(I) 1 January – 31 March (to be provided by 20th April)
(II) 1 April – 30 June (to be provided by 20th July)
(III) 1 July – 31 October (to be provided by 20th November)
(IV) 1 November – 31 December (to be provided by 20th January)

The updated FMEA-RNP-Form for a certain period shall include retroactive data to cover 1-year period, i.e. deliverable at bullet (II) above - if requested - shall include in the FMEA-RNP-Form data
for the time period from 1 July of the previous year to 30 June of the current year. FMEA-RNP-Form pre-filled with retroactive data will be provided to the Contractor.

The delivery dates relative to the different time periods are given as an example, and the Commission reserves the right, to add, remove or modify time periods. A quarterly reporting is displayed in the example above, with the third quarter extended to include the month of October. The deliverables related to any defined time period shall be submitted latest 20 days following the end of that period and the Contractor shall be capable to meet the deadlines.

**IV.1.2 Downtime Analysis for IMS Noble Gas Stations**

1. The Contractor shall perform a downtime analysis of all IMS noble gas (NG) systems by reviewing station downtime, related failures modes and effects, and IRS problem reports.
2. Station downtime shall be categorized according to the downtime categories defined and provided by the Commission (see Appendix I Figure 3 and 4 as examples).
3. The results of the downtime analysis shall be compiled in a FMEA template for noble gas stations, provided by the Commission (hereinafter referred to as “FMEA-NG-form”). These results describe for each station their downtimes and the failure categories associated.
4. Data Availability and downtime statistics for each noble gas station shall be displayed in the FMEA-NG-form on a monthly basis for a period of 1 year backwards. Graphical distribution of downtime according to failure categories shall be displayed for the entire year.
5. Data trends shall be assessed and illustrated in graphical form. The trend of downtime distribution according to the failure categories shall be displayed on a monthly basis backwards to 1 January 2013. Historical results computed in the past will be provided by the Commission.

**IV.1.2.1 Commission's contribution**

Access to all IRS problem reports, as well as data availability and downtime numbers necessary for the FMEA will be made available to the Contractor from the Commission’s database.

**IV.1.2.2 Communication**

Communication between the Commission and the Contractor will be done via electronic channels, such as e-mail, fax and telephone calls.

**IV.1.2.3 Deliverables**

The FMEA-NG-Form shall be updated and submitted to the Commission at delivery dates which are requested by the Commission as part of each work order, with a maximum of four (4) deliveries per calendar year. The third quarter is extended to include the month of October, to accommodate the Commission’s reporting needs. The updated FMEA-NG-Form for a certain period shall be submitted latest 20 days following the end of that period, i.e.:

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<tbody>
<tr>
<td>(I)</td>
<td>1 January – 31 March <em>(to be provided by 20th April)</em></td>
</tr>
<tr>
<td>(II)</td>
<td>1 April – 30 June <em>(to be provided by 20th July)</em></td>
</tr>
<tr>
<td>(III)</td>
<td>1 July – 31 October <em>(to be provided by 20th November)</em></td>
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<td>(IV)</td>
<td>1 November – 31 December <em>(to be provided by 20th January)</em></td>
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</table>

The updated FMEA-NG-Form for a certain period shall include retroactive data to cover 1 year period, i.e. deliverable at bullet (II) above - if requested - shall include in the FMEA-RNP-Form data for the time period from 1 July of the previous year to 30 June of the current year. FMEA-NG-Form pre-filled with retroactive data will be provided to the Contractor.
The delivery dates relative to the different time periods are given as an example, and the Commission reserves the right to add, remove or modify time periods. A quarterly reporting is displayed in the example above, with the third quarter extended to include the month of October. The deliverables related to any defined time period shall be submitted latest 20 days following the end of that period and the Contractor shall be capable to meet the deadlines.

IV.2 Work Area 2: Downtime analysis and station equipment failure statistics for the IMS SHI network

1. The Contractor shall perform a downtime analysis of all IMS Seismic, Hydroacoustic and Infrasound (SHI) systems by reviewing station downtimes, related failures causes, and IRS problem reports.
2. Station downtimes shall be categorized according to categories defined and provided by the Commission (see Appendix I as an example).
3. The results of the downtime analysis shall be compiled and shall describe for each station their downtimes and the failure categories associated.
4. Data Availability and downtime statistics for each SHI station shall be presented at least on a semi-annual basis and for a period of 1 year. Graphical distribution of downtime according to failure categories shall be displayed for the entire year.
5. Data trends shall be assessed and illustrated in graphical form. The trend of downtime distribution according to the failure categories shall be displayed at least on a semi-annual basis backwards to November 2011. Historical results computed in the past will be provided by the Commission.

Results over a certain period shall be submitted latest 20 days following the end of that period.

IV.2.1 Commission’s contribution

Access to IRS problem reports, as well as data availability numbers necessary for the FMEA will be made available to the Contractor from the Commission’s database.

IV.2.2 Communication

Communication between the Commission and the Contractor will be done via electronic channels, such as e-mail, fax and telephone calls.

IV.2.3 Deliverables

Semi-annual FMEA-reports shall be provided for the following periods:

(I) 1 January - 30 June (to be provided by 20th July)
(II) 1 July - 31 December (to be provided by 20th January)
In case quarterly reports are requested, FMEA reports shall be provided for the following periods:

(I) 1 January – 31 March *(to be provided by 20th April)*
(II) 1 April – 30 June *(to be provided by 20th July)*
(III) 1 July – 30 September *(to be provided by 20th October)*
(IV) 1 October – 31 December *(to be provided by 20th January)*

The delivery dates relative to the different time periods are given as an example, and the Contractor shall be capable to meet these deadlines. The Commission reserves the right, to add, remove or modify time periods. The deliverables related to a defined time period shall be submitted latest 20 days following the end of that period.

**IV.2.4 Format**

Detailed description of all computations and gathered data (extracted data following ETL (extract, transform, load) steps, result data following analysis) shall be made available in Oracle database (if not agreed otherwise) as well as, when and where applicable, in Microsoft Excel files. All documents shall be prepared using the Microsoft Office suite and shall be delivered to the Commission in electronic form. Any complementary information necessary to guarantee results quality, accuracy, and reproducibility (such as information on the methodology, data sources and intermediate results) shall be provided upon request from the Commission. The Commission shall retain the ownership of all intellectual property contained in the documentation delivered to the Commission under the Contract.

**IV.3 Additional Services (Optional)**

Additional Services (Optional) can be requested by the Commission in support of downtime analysis and failure statistics tasks. Below are the listed services, for which more detailed information will be provided through additional Terms of Reference at the time of the request (FRD):

1. Assistance in the development and/or maintenance of the engineering information management systems, including collaboration tools and web sites.
2. Review of engineering and sustainment related processes: conduct studies; process data; elaborate support documentation; review relevant documentation; provide technical assistance.
3. Provide statistical reports for certified IMS stations.
4. Accounting of incidents affecting data availability.
5. Failure rate analysis of station and station equipment. Recapitalization rate and life cycle of generations of major system components. Degradation patterns studies.
6. FMECA (“Failure Modes, Effects and Criticality Analysis”) for IRS incidents categorization. Provide methodology to categorize PRs in terms of cause and effect of failure. Assessment of the capability of available tools to provide reliable input data to compute failure statistics.
V. Requirements for the Contractor

V.1 General requirements

The Contractor shall satisfy the following mandatory requirement:

(a) Use of the English language for all written and oral communication with the Commission.

The Contractor shall satisfy the following mandatory technical requirements:

(b) Engineering or technical education, experience and training.
(c) Very good knowledge and skills using standard computer applications (MS Office).
(d) Technical knowledge of CTBT International Monitoring System technologies (RN Particulate and Noble Gas for Work Area 1, and SHI for Work Area 2).
(e) Understanding of IMS Station Models of IMS technologies as defined in the Appendix (RN Particulate and Noble Gas for Work Area 1, and SHI for Work Area 2).
(f) Proven with preferably three (3) years minimum experience in performing downtime or failure analysis, computing failure statistics and providing computation services.
(g) Knowledge of failure modes and causes occurring at IMS stations (RN Particulate and Noble Gas for Work Area 1, and SHI for Work Area 2) and ability to understand, interpret, and correct if necessary failure modes and categories from problem reports.
(h) Proven with preferably three (3) years minimum experience working on the Database of the Technical Secretariat (DOTS) and the IMS Report System (IRS) databases is required for SHI (Work Area 2) technologies, and an asset for RN and NG technologies (Work Area 1).
(i) Proven with preferably three (3) years minimum experience using databases (e.g. Oracle and SQL) is required for RN and NG technologies (Work Area 1).
(j) Proven experience using CTBT Performance Reporting Tool (PRTool) (webpage, database) is required for SHI technologies (Work Area 2), and an asset for RN and NG technologies (Work Area 1).
(k) Proven experience using JIRA (Atlassian software) Application Programming Interfaces (APIs) is required for SHI technologies (Work Area 2), and an asset for RN and NG technologies (Work Area 1).
(l) Experience using a programming language (such as Python) is an asset.
(m) Demonstrated expertise in implementing Quality Control of radionuclide related products and services in accordance to Internationally recognized Quality Standards is required (Work Area 1);
(n) Demonstrated experience in working within an established Quality Management System is an asset.
V.2 Team Expertise Requirements

V.2.1 Team Roster

There is no requirement on the quantity of people to be included into the team roster, providing that all the expertise requirements are met. In its Proposal, the Contractor shall provide details of any staff that are expected to be involved in the performance of work on-site and/or off-site for the Commission. At a minimum, the following information shall be provided for each of these staff:

(a) Name;
(b) Role;
(c) Employed since;
(d) Type(s) of Service(s) from Section IV in which the staff may be involved;
(e) Curriculum Vitae.

The Contractor shall demonstrate:

(f) The capacity of the suggested Team Roster to perform the Services described in Section IV;
(g) The compliance of the suggested Team Roster with requirements set out in Section V.1.

V.2.2 Maintenance of the Team Roster, Conditions of Revision

The Contractor shall maintain an up-to-date version of the Team Roster for the duration of the Contract. The Contractor shall be responsible to inform the Commission when staffs are to be removed or added to the Team Roster, and if the details of a staff are modified.

If the Commission estimates that the Team Roster lacks capacity or capability to perform a specific work within the specified timeframe or quality, the Contractor shall provide, within 5 (five) working days after a request is made by the Commission, the details of skilled and experienced staff to be added to the Team Roster for consideration by the Commission.

The Commission shall be entitled to confirm whether or not the proposed Team Roster revision is acceptable.

V.2.3 Team

Prior to the issuance of an FRD, as described in Section VI.1, the Contractor is requested to propose to the Commission a list of staff that will be working under the proposed FRD. This Team shall be selected from the Team Roster.

The Contractor shall ensure that each staff of the Team:

- Is dedicated to the project during the project period (unless otherwise agreed); and
- Is not re-assigned from the project without the prior written consent of the Commission.
The Contractor shall satisfy the following mandatory requirements:

- An established pre-screening process to identify suitable staff;
- Provide reasonable evidence that the proposed Team is appropriately skilled and experienced to carry out the work plan;
- Replacement of poor performing Team members or provision of specific training to address a gap in knowledge identified after a Team member has started his or her assignment, at no cost for the Commission, upon request by the Commission.

The Contractor shall be pro-active in identifying and proposing additional resources and/or expertise to the Team based on the current needs.

The Commission shall be entitled to confirm whether or not the proposed Team is acceptable.

The Commission reserves the right to seek an immediate replacement for any Team member, as determined by the Commission. In such cases, the Commission will request a replacement Contractor staff, with equal or better qualifications and experience, to complete the tasks. If no suitable replacement consultant can be agreed upon, the Commission reserves the right to terminate the assignment of the Team member with immediate effect. Continuity of staff is an important consideration. The Contractor shall therefore take necessary measures to ensure a seamless transition when taking over the services and keep changes to staff being assigned to the Commission to a minimum throughout the duration of the contract.

VI. ORGANIZATION OF WORK

**Formal Request for Delivery (FRD):** The Services or Work shall be called-off directly through the issuance by the Commission of Formal Request for Delivery (FRD) to the Contractor.

**VI.1 Initiating Work**

Before the issuance of an FRD to the Contractor and upon receipt of a written request from the Commission, containing elaborations and definitions as to the nature of the particular Service(s), the Contractor shall provide, at a minimum, within one (1) week of receiving the written request, the following information in the form of a work plan for each Service identified in the written request:

(a) A list of staff who will be working under this FRD and the role of each of these staff members. The staff shall be a subset of the Team Roster, as described in Section V.2;
(b) Details of the suggested project management approach;
(c) Work plan and key schedule to accomplish the Service;
(d) Number of man-days to be allocated to the Service;
(e) Where applicable, the cost of travel based on the most economical and direct option. The Commission reserves the right, based on the information provided by the Contractor, to approve the type of airfare or to purchase a ticket;
(f) Place of work (on-site/off-site);
(g) Commencement date and completion date of the Service.

After review of the work plan for each of the Service identified in the written request, and only after acceptance by the Commission, the FRD shall be issued to the Contractor.
Each FRD shall be based on one (1) or more of the Services described in this ToR under Section IV and on the approved work plan for each of the Service to be completed. The Commission will forward FRDs to the Contractor with adequate advanced notice and containing all necessary details, expected deliverables, and minimum requirements for satisfactory performance.

VI.2 Technical Visits

Although technical meetings between the Contractor and the Commission will mostly be arranged remotely, the Contractor might be requested by the Commission to perform in person technical visits in Vienna. The purpose of meetings can be related but not limited to kick-off meetings, periodical (e.g. semi-annual) and annual progress meetings, and delivery meetings.

In case a technical visit is requested, the Contractor shall make all the travel arrangement (e.g. visas, hotels) for their staff. Airline tickets may be purchased by the Commission and reimbursements for DSA may be agreed solely for the days of technical visit requested by the Commission, should it be deemed appropriate at the time when work is called off.

Deliverables

After each technical meeting or visit requested by the Commission, the Contractor shall submit a Technical Visit Report:

(a) Date and place where the task took place;
(b) Description of the task;
(c) The action(s) taken to complete the task, including presentations, results and associated data, if applicable;
(d) Conclusions, as applicable.

At the time when work is called-off, the Commission may request other deliverables deemed relevant.

VI.3 Knowledge transfer

As applicable, for any service requested under this Contract, the Contractor shall deliver detailed information of methodologies applied in a written format enabling knowledge transfer to the Commission. The information must contain at least the following:

(a) List of all used software and their usage in the data gathering and preparation process. This should include all custom-made software and solutions as well as any commercial off-the-self (COTS) software.
(b) Any specifically written algorithm or source code (such as, but not limited to SQL, PHP, JS, Python) for the services requested by the Commission under this Contract preferably in its original format (such as, but not limited to .sql . php .js .py .txt). These shall be inserted in the Commission’s Git version control system accessible externally via the GitHub platform.
(c) All computations and methodologies used under this Contract, following request by the Commission in the most appropriate format as applicable (such as, but not limited to Entity Relationship Diagram, cross-functional or other flowchart, MS Word and Excel).
(d) On-site presentation to the Commission of the above information, if requested.
All custom-made software, algorithms, computations, methodologies and tools used under this contract shall be validated and validation records shall be submitted to the Commission.

VI.4 Completion and Acceptance

At the end of a particular Service under the FRD, the Contractor shall submit to the Commission the deliverables as stated in the respective FRD. The Work shall be reviewed by the Commission against requirements of the FRD and the Commission’s internal working practices and standards, including Key Performance Indicators (KPI).

If requested by the Commission in an FRD, upon completion of the Service(s) under the FRD, the Contractor may be required to provide a presentation (including slides/handouts as required) to the Commission at its Headquarters in Vienna.

VI.5 Key Performance Indicators (KPI)

1. The list of KPIs shall be used to determine if the Contractor performs its obligations under the Contract and if the Work and/or Services are satisfactorily performed by the Contractor and accepted by the Commission in the accordance with the requirements of the Contract. The minimum required KPIs are provided in the below table.

2. The Commission shall monitor the performed Work and submitted deliverables and accept as satisfactory on a periodical (e.g. semi-annually) basis. The Commission shall maintain a KPI dashboard, which shall be used to assess the results of the periodical review based on the KPIs. The results may also be provided to the Contractor on periodical on-line or on-site meetings with the Contractor.

3. Another annual meeting may be conducted by the Commission after the end of each contract year. The meetings will cover the entire scope of the Contract, including managerial, contractual, technical and particular consideration shall be given to the status of changes, action items, and the evaluation of service quality through KPI ratings, as well as lessons learned. The quality of Work (Services) will be a determining factor in the evaluation of the Contractor's performance under the Contract.
<table>
<thead>
<tr>
<th>Description of KPIs</th>
<th>Response</th>
<th>Points</th>
<th>Assessment of KPI levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timely response</td>
<td>Within 5 days</td>
<td>5%</td>
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<tr>
<td>- review of request and submission of project plan for FRD;</td>
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<td>- quality of the project plan;</td>
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<tr>
<td>- confirmation of FRD</td>
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<tr>
<td>Timely submission of the deliverables</td>
<td>Not later than 1 days after the deadline Not later 2 days after the deadline</td>
<td>5%</td>
<td></td>
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<tr>
<td>Level of support requested from the Commission (autonomy of the Contractor [queries, clarifications, guidance, etc.])</td>
<td></td>
<td>10%</td>
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</tr>
<tr>
<td>Quality of the deliverables:</td>
<td></td>
<td>80%</td>
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<tr>
<td>- Consistency with contract and FRD requirements</td>
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<tr>
<td>- Data accuracy and consistency of information provided, quality of text and illustrations (structure, language, quality);</td>
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<tr>
<td>- Level of details delivered ensuring results credibility and reproducibility (including queries and algorithms)</td>
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<tr>
<td><strong>Overall assessment</strong></td>
<td></td>
<td>100%</td>
<td></td>
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<tr>
<td><strong>Assessment points:</strong></td>
<td>5 points or 100%</td>
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</tr>
<tr>
<td>1 and 2 – not acceptable</td>
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<td></td>
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<td>3 – acceptable with indications of ways to remedy;</td>
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<tr>
<td>4 – acceptable (within the indicated period or percentage of quality)</td>
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<tr>
<td>5 – fully accepted (no comments)</td>
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In the event the Contractor fails to maintain the minimum 3.2 points or 51% level of the Services or Work, the Commission may deduct days from the payment from the order(s) or a sum equivalent to the percentages per day spent by the Commission’s staff to remedy the data quality in the deliverables.
VII. Work Environment

For off-site work, the Contractor shall provide its own infrastructure, hardware and software environment necessary for the completion of its work under the Contract. The Contractor shall communicate with the Commission by telephone, or electronic mail, as appropriate. All costs incurred by the Contractor as a result of such communication with the Commission for the performance of work under the Contract, shall be borne by the Contractor.

If needed, remote access to the relevant infrastructure (servers, VLANs, databases) in the Commission’s network should be given to the Contractor. «Infrastructure» comprises, but is not limited to software, servers, VLANs and databases.
Appendix I

An IMS Station Model is defined for SHI (Seismic, Hydroacoustic and Infrasound) stations, RN (Radionuclide particulate) stations, and for both types of NG (Noble Gas) systems as defined in Figures 1-4.

These models define three levels for each technology: Failure Causes, Station Subsystems and Equipment Categories. Downtime analysis reporting will be mainly made on the Failure Causes and Station Subsystems, and also on the Equipment Categories when results would be relevant.

Figure 1: IMS Station Model for SHI
Figure 2: IMS Station Model for RN Particulate

Figure 3: IMS Station Model for SPALAX Noble Gas
Figure 4: IMS Station Model for SAUNA Noble Gas