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# **ESWATINI CIVIL AVIATION AUTHORITY**

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REQUEST FOR PROPOSALS FOR THE SUPPLY AND INSTALLATION OF AN AIR TRAFFIC  
SERVICES DIGITAL RECORDING AND REPLAY SYSTEM AT KING MSWATI III  
INTERNATIONAL AIRPORT

REFERENCE NUMBER: 07 of 2021/22

SEPTEMBER 2021

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## ADVERTISEMENT

### ESWATINI CIVIL AVIATION AUTHORITY

#### TENDER NOTICE

#### REQUEST FOR PROPOSALS FOR THE SUPPLY AND INSTALLATION OF AN AIR TRAFFIC SERVICES

#### DIGITAL RECORDING AND REPLAY SYSTEM AT KING MSWATI III INTERNATIONAL AIRPORT

#### TENDER NO. 07 OF 2021/22

1. Proposals are hereby invited from Competent, registered, reputable and with necessary expertise companies to tender for the supply and installation of an Air Traffic Services Digital Recording and Replay System at King Mswati III International Airport
2. Request for Proposals with the full specifications and scope of the required services may be purchased from; the Eswatini Civil Aviation Offices in Matsapha (Finance Office) as from **19th October 2021** for a non-refundable fee of **E300.00 (\$21)** per set. The method of payment shall be cash, bank guaranteed cheque payable to the ESWACAA offices or Electronic funds transfer (EFT) to the ESWACAA Account number:

HOLDER: ESWATINI CIVIL AVIATION AUTHORITY  
ACCOUNT NUMBER: 20000464288  
BANK NAME: NEDBANK  
BANK ADDRESS: 68 MBABANE  
SWIFT CODE: NESWSZMX  
ACCOUNT NAME: CURRENT ACCOUNT  
BRANCH CODE: 360164  
PHYSICAL ADDRESS: HEAD OFFICE BUILDING, MATSAPHA AIRPORT, MATSAPHA

Having paid the Tender set amount via EFT, Tenderers must email proof of payment to: [simaseko@eswacaa.co.sz](mailto:simaseko@eswacaa.co.sz) / [ntokozo@eswacaa.co.sz](mailto:ntokozo@eswacaa.co.sz) to receive the Tender set.

3. Completed Tender Documents shall be delivered in a sealed envelope to:

**The Secretary to the Tender Board**  
**Eswatini Civil Aviation Authority**  
**Matsapha International Airport**  
**P.O Box D361**  
**The Gables**

Not later than 12 noon Eswatini time on **7th December, 2021**

4. On the outside, the envelope shall be clearly marked:

**"CONFIDENTIAL"**  
**TENDER NO. 07 OF 2021/22**

**REQUEST FOR PROPOSALS FOR SUPPLY AND INSTALLATION OF AN AIR TRAFFIC SERVICES DIGITAL RECORDING AND REPLAY SYSTEM AT KING MSWATI III INTERANTIONAL AIRPORT.**



5. The Eswatini Civil Aviation Authority does not bind itself to accept the lowest or any tender and reserves the right to reject any or all tenders.

**BY MANAGEMENT**

**INSTRUCTION TO TENDERERS**

**1.1 Qualification of the bidder.**

All service providers shall include the following information and documents with their bids;

- (a) Trading License, Tax Compliance Certificate, official statement of the Directors and alternative directors, official statement of the annual summary of share capital and shares and Tender Purchase Receipt.
  - (b) Copies of original documents defining the constitution or legal status, place of registration, and principal place of business; written power of attorney of the signatory of the bid to commit the bidder;
  - (c) Total monetary value of similar work performed for each of the last two years;
  - (d) Experience in works of a similar nature and size for each of the last two years and details of work under way or contractually committed; and clients who may be contacted for further information on those contracts;
  - (e) authority to seek references from the bidder's bankers;
- To qualify for award of the contract, service providers shall meet the following minimum qualifying criteria:
- a. experience as prime service providers in at least three projects of a similar nature and complexity equivalent to the works over the last 2 years (to comply with this requirement, works cited should be at least 70 percent complete);
  - b. Reference from an Organization where a similar project was successfully undertaken.



**1.2 One bid per Bidder.**

Each service provider shall submit only one bid.  
A service provider who submits or participates in more than one bid will result in disqualification.

**1.3 Cost of bidding.**

The service provider shall bear all costs associated with the preparation and submission of his bid, and the employer will in no case be responsible or liable for those costs.

**1.4 Content of Bidding Documents.**

The set of bidding documents comprises the documents listed below and any addenda issued:

- Invitation to bid
- Instructions to bidders
- Forms of bid and qualification Information
- Conditions of contract

**1.5 Clarification of bidding documents.**

A prospective service provider requiring any clarification of the bidding documents may notify the employer in writing or by email at the employer's address indicated in the invitation to bid. The employer will respond to any request for clarification received earlier than 3 days prior to the deadline for submission of bids. Copies of the employer's response will be forwarded to all purchasers of the bidding documents, including a description of the inquiry, but without identifying its source. The Language to be used is English and currency will be Emalangeni.

**1.6 Amendment of bidding Documents.**

Before the deadline for submission of bids, the employer may modify the bidding documents by issuing addenda.

Any addendum issued shall be part of the bidding documents and shall be communicated in writing or by email to all purchasers of the bidding documents.



Prospective bidders shall acknowledge receipt of each addendum by email to the Employer.

To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer shall extend, as necessary, the deadline for submission of bids.

**1.7 Documents comprising the bid.**

The bid submitted by the bidder shall comprise the following:

- (a) The bid
- (b) Qualification Information Form and any other materials required to be completed and submitted by bidders, as specified in these instructions to Bidders.

**1.8 Bid prices.**

The Contract shall be for the whole project, based on the bid price submitted by the bidder.

All duties, taxes, and other levies payable by the service provider under the Contract, shall be included in the total bid price submitted by the bidder. The prices quoted by the bidder **shall not be subject** to adjustment during the performance of the Contract.

**1.9. Bid validity**

Bids shall remain valid for a period of 60 days from date of tender opening. In exceptional circumstances, the Employer may request that the bidders extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing. A bidder may refuse the request without forfeiting the bid Security. A bidder agreeing to the request will



not be required or permitted to otherwise modify the bid, but will be required to extend the validity of bid security for the period of the extension.

**1.10. Format and signing of bid**

The bidder shall prepare one original of the documents comprising the bid as described in these Instructions to Bidders, bound with the volume containing the Form of Bid, and clearly marked "ORIGINAL." In addition, the Bidder shall submit a copy of the Bid, and clearly marked as "COPY." In the event of discrepancy between them, the original shall prevail. The copies are to be used as working documents while the Originals will be kept by the Employer for record purposes.

The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the bidder. **All pages of the bid where entries or amendments have been made shall be initialed by the person or persons signing the Bid.**

The Bid shall contain no alterations or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the Bidder, in which case **such corrections shall be initialed by the person or persons signing the Bid.**

**1.11. Sealing and marking of bids**

The bidder shall seal the original and the copy of the Bid in two separate envelopes duly marking the envelopes as "ORIGINAL" and "COPY" respectively.



The envelopes shall;

-be addressed to the Employer at the address provided in the tender advertisement.

-bear the name and identification number of the Contract as defined.

- provide a warning not to open before the specified time and date for Bid opening.

- Envelopes of Financial proposals must have a name of the Company on the Envelope.

In addition to the identification required, the envelopes shall **indicate the name and address of the bidder** to enable the bid to be returned unopened in case it is declared late.

If the envelopes are not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the bid.

**Technical and Financial proposals shall be submitted in separate envelopes.**

The original and all copies of the Technical Proposal shall be placed in a sealed envelope clearly marked "**TECHNICAL PROPOSAL**" Similarly, the original Financial Proposal shall be placed in a sealed envelope clearly marked "**FINANCIAL PROPOSAL**" followed by the name of the assignment, and with a warning "**DO NOT OPEN WITH THE TECHNICAL PROPOSAL.**" The envelopes containing the Technical and Financial Proposals shall be placed into an outer envelope and sealed. The outer envelope shall bear the submission address, reference number and be clearly marked "DO NOT OPEN, EXCEPT IN PRESENCE OF THE OFFICIAL APPOINTED NOT LATER THAN 12 NOON LOCAL TIME ON THE 7th December 2021".



**1.12. Deadline for sub-mission of bids**

Bids shall be delivered to the employer at the address specified in the tender advertisement and no later than the time and date specified.

The employer may extend the deadline for submission of bids by issuing an amendment, in which case all rights and obligations of the employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

**1.13. Late Bids**

Any bid received by the employer after the prescribed deadline will be returned unopened to the bidder.

**1.14. Bid opening**

The employer will open the bids, in the presence of the bidders' representatives who choose to attend at the time and in the place specified in the tender advertisement. The presence or absence of **bid security** documents defining the constitution or **legal status** (e.g. valid trading license/, tax compliance certificate etc.) will be announced by the Employer at the opening.

The Employer will also check for **proof of official purchase and payment** of the tender documents and companies or suppliers are urged to attach copies of the purchase receipts. Firms with incomplete documentation will be disqualified. The Employer will prepare a record of the opening.

**1.15. Process to be confidential**

Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful bidder has been announced. Any effort by a bidder to influence the Employer's processing of bids or award decisions will result in the rejection of the bid.





**1.16. Clarification of bids**

To assist in the examination, evaluation, and comparison of bids, the employer may, at the Employer’s discretion, ask any Bidder for clarification of the Bidder’s Bid, including breakdowns of unit rates.

The request for clarification and the response shall be in writing, or email, but no change in the price or substance of the bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the employer in the evaluation of the bids.

**1.17. Correction of errors**

Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:

- (a) where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and
- (b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, unless in the opinion of the Employer there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern, and the unit rate will be corrected.

The amount stated in the Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, **with the concurrence of the bidder**, shall be considered a binding upon the Bidder. If the Bidder does not accept the corrected amount, the Bid will be rejected.

**1.18. Evaluation and award criteria**

The employer will evaluate and award only those bids determined to be substantially responsive to the bidding documents.



**1.18.1 Intention to Award**

All bidders are required to provide their email addresses to the Authority through which they will be notified of the intention to award on the day that the intention is sent to Eswatini Public Procurement Regulatory Agency (ESPPRA).

**1.19. Employer's right to accept any bid and to reject any or all bids**

The employer reserves the right to accept or reject any Bid, and to cancel the bidding process and reject all bids, at any time prior to the award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for the Employer's action.

**1.20 Evaluation methodology**

The evaluation of methodology used will be the Quality Cost Based Selection. Financial evaluation criteria: On Cost/Rates Proposed, the Bidder with the lowest cost/rates proposed is given maximum points, and then a percentage ratio formula is applied to remaining Bidders. The lowest evaluated Financial Proposal (Fm) will be given the maximum financial score (Sf) of 100 points. The financial scores (Sf) of the other Financial Proposals will be computed as follows:  $Sf = 100 \times Fm / F$ , in which Sf is the financial score, Fm is the lowest price and F the price of the proposal under consideration. Proposals will be ranked according to their combined technical (St) and financial (Sf) scores using the weights (T = the weight given to the Technical Proposal; P = the weight given to the Financial Proposal; T + P = 1) indicated in the Data Sheet:  $S = St \times T\% + Sf \times P\%$ . The firm achieving the highest combined technical and financial score will be invited for negotiations.

The weights given to the Technical and Financial Proposals are:

T = 0.8, P = 0.2.



## 2. BACKGROUND

The Eswatini Civil Aviation Authority (ESWACAA) is a statutory body that was established by the Government of the Kingdom of Eswatini through an Act of Parliament, the Civil Aviation Authority Act No.10 of 2009, and became operational on the 7<sup>th</sup> December 2009. The Civil Aviation Authority is an administrative and commercial body corporate mandated to provide, in an economically viable manner, air transport services and regulation of civil aviation activities in Eswatini; in accordance with International standards.

Accordingly, the Authority manages all Airports in the Kingdom of Eswatini. It also manages the Provision of Air Navigation Services within the designated portion of the Eswatini Airspace and also regulates all Civil Aviation activities in the Kingdom of Eswatini. The Authority's Air Navigation Services division therefore, is guided by the Civil Aviation Authority (Air Navigation Services) Regulations 2013. Regulation 32 and 34 of the Regulations provides that the Air Navigation service provider should make provision for the automatic recording of Air Traffic Service Data and Communication.

Pursuant to this requirement therefore, the Authority 's Air Navigation Service Provider (ANSP) desires to procure an Air Traffic Services Digital Recording and Replay System that will ensure the recording all of ATS data and communication. The ANSP is therefore looking for suitable service providers with the necessary expertise , experience and equipment to supply and install the digital ATS recording system for its operations.





## 3.0. Digital Recording and Replay System Specifications

### 3.1. System Outline

- 3.1.1. The Digital Recording and Replay System shall be completely redundant, with two systems interfacing and recording all the sources.
- 3.1.2. The two systems shall run in hot-parallel with no main / standby switchover mechanisms.
- 3.1.3. The Record and Replay System shall employ Standard Hardware (COTS) and Software platform (Windows/UNIX) employing the latest proven technology for both the record and replay functions. This technology shall be based on servers using the Redundant Array of Independent Disks (RAID 1,5 or 6) principles.
- 3.1.4. It shall use common Ethernet communication mechanisms between the computers constituting the recording system and also between the recording system and other applicable computers.

### 3.2. Operational Requirements

#### 3.3. General

- 3.3.1. The Recording System shall offer a 100% redundancy for all channels of recorded data irrespective of the source of that data with the capacity to store up to 31 days of all channels of data as a minimum.
- 3.3.2. The Replay System shall provide multiple options for the replay function including the ability to segregate certain channels for secure replay at remote locations (such as laptop computers) for incident investigation or review without compromising the data being replayed.
- 3.3.3. The Replay System shall be able to be controlled from multiple sources under license control including through an Application Programmable Interface (API) with an Air Traffic Management software system.
- 3.3.4. The Replay System shall be capable of delivering synchronous replay data of a selection of channels irrespective of the source of the data. (Voice, radar, CCTV or screen images)
- 3.3.5. The Replay System shall, through the API, provide synchronous data of a selection of channels irrespective of the source of the data to the Air Traffic Management system.
- 3.3.6. The Record and Replay System shall provide an Automatic clean-up facility to maximize the storage capacity.
- 3.3.7. The Record and Replay System shall be fully compliant to ICAO standards including the latest amendments.
- 3.3.8. The Record and Replay System shall use built in security tools to preserve data integrity and data privacy.



- 3.3.9. The Record and Replay System shall be of a Modular architecture that can be expanded upon (additional channels as well as the ability to record with synchronous replay of different types of signals like voice, radar, CCTV and screen images) This option for expansion shall be able to be integrated in to the existing system with ease and adaptability.
- 3.3.10. The Record and Replay System shall be very User-friendly to minimise time and stress for the user.
- 3.3.11. The Record and Replay System shall have extensive user tool features for supervision, data base administration, reports and statistical charts.
- 3.3.12. The system shall be able to be operated in monitor- or playback mode without affecting the recording (mode).
- 3.3.13. Software updates shall be possible to execute in a controlled way from the administration tool.
- 3.3.14. Configuration from current version shall be automatically copied to the new version.
- 3.3.15. A roll-back feature to previous version(s) shall be possible.
- 3.3.16. The system shall have the ability be reconfigured and updated without scheduling off peak hours for the technicians
- 3.3.17. Tuning of signal lines shall also have the ability to be performed without any operational shutdown. New upgrades can be tested and evaluated without effecting the original configuration of the system.
- 3.3.18. The system shall have the option to enable automatic replication of data between the two sides of the dual system when one side has been down, either scheduled or manually.
- 3.3.19. If the total system is hosted on several recorders, replay and administration functions shall be integrated, providing system wide access via one access point.
- 3.3.20. Management, configuration, monitoring and replay shall be accessible in the same web application
- 3.3.21. The system shall be accessible from any computer with access to Corporate intranet
- 3.3.22. The system shall be accessible from any up-to-date common web-browser
- 3.3.23. The web-application shall be self-hosted
- 3.3.24. Individual sites in a multi-site system shall be accessible both locally and centrally if desirable
- 3.3.25. The system shall be accessible via a public IP if desirable
- 3.3.26. The system shall be able to operate within a private, public or hybrid cloud
- 3.3.27. The system shall support geo-redundancy if applicable
- 3.3.28. Processing of source data shall not be limited to one component but shall be able to be performed in steps compromising several components and/or locations, e.g. data collection at one site and recording at another





### **3.3. Monitoring**

- 3.3.1. The system shall have the possibility of customized dashboards for optimal overview of the system status.
- 3.3.2. The system shall support showing real-time and historic performance data
- 3.3.3. The system shall support showing performance data for different units of time, e.g. minutes, hours, days
- 3.3.4. The system shall support displaying data from different performance counters in the same widget for comparison (covariance)
- 3.3.5. The system shall support raising alarms based on performance data
- 3.3.6. The system shall support thresholding on performance data
- 3.3.7. Performance data shall have the option to be visualized using different widgets; graphs, pie charts etc.
- 3.3.8. The system shall be able to integrate with performance data from external peripherals that can be queried in a standard way, e.g. via SNMP
- 3.3.9. The system shall offer extensive performance monitoring of host computers, e.g. storage capacity
- 3.3.10. The system shall offer extensive performance monitoring of all system processes, e.g. CPU usage for a specific process

### **3.4. Security Requirements**

- 3.4.1. User access – Login functionality.
- 3.4.2. The purpose of the user management system is to set up a user, or group of users in an easy and efficient way to allow for authenticated and differentiated access to the system
- 3.4.3. Menu items not accessible due to security restrictions shall be hidden.
- 3.4.4. The system shall support creation of user groups with access roles
- 3.4.5. The system shall support creation of user groups with configurable access roles
- 3.4.6. The system shall support creation of user with access roles and optional association to user groups
- 3.4.7. The system shall support the following user attributes as minimum: full name, user name, password, access roles, channel list and email address
- 3.4.8. The system shall support the following access roles as minimum: replay, monitoring, export, configuration, impound management, administration
- 3.4.9. The system shall support drag and drop of users between groups to allow for easy set up and configuration
- 3.4.10. A user or user group shall be associated with configurable list of channels





- 3.4.11. The system shall support secure login with optional integration to Active Directory (AD)
- 3.4.12. The system shall support optional strong passwords
- 3.4.13. The system shall support optional automatic expire of password
- 3.4.14. The system shall store passwords encrypted on server side
- 3.4.15. The system shall support adding, editing and deleting users or groups without the need for restarting part of the system
- 3.4.16. Attempt to unauthorized login shall be logged in the systems Audit Trail System
- 3.4.17. The system shall support authorization of login by use of recognized methods like OAuth or similar
- 3.4.18. The system shall support HTTPS connection between client and server side

### **3.5.0. Interface and Recording Requirements**

- 3.5.1. Audio Data
- 3.5.2. The system shall support digitalisation and recording from analogue audio inputs.
- 3.5.3. The system shall support recording from digital audio inputs, such as 64 kbps (single digital sources lines) as well as from T1 and E1 trunk interfaces.
- 3.5.4. Analogue audio channels or E1 trunks shall be interfaced by an Ethernet connected external interface unit which shall support interfacing both analogue channels and E1 trunks
- 3.5.5. The system shall support identifying, recording and replaying timeslots from trunks as individual channels and shall support at least PCM-30, ISDN, QSIG protocols.
- 3.5.6. The system shall support recording audio from VoIP networks
- 3.5.7. The system shall be compliant to VoIP Recording standard ED-137, Volume 4.
- 3.5.8. Shall have extended support for meta-data when recording ED-137
- 3.5.9. New ED-137 channel shall automatically be added to the channels available for replay; no manual configuration shall be necessary
- 3.5.10. The system shall support multiple digital audio codec's and compression algorithms and the system shall support easy implementation of new codec's and algorithms.
- 3.5.11. Use of codec and compression shall be easily selectable for each audio interface.
- 3.5.12. Sampling rate shall support 8, 16, 32 and 64 kHz
- 3.5.13. Sampling resolution shall be 16 bits or better
- 3.5.14. All recorded data shall be recorded at their true input levels, but AGC shall be available and possible to enable/disable individually per channel.

### **3.6.0. Radar Data**

- 3.6.1. The system shall be able to interface and record full radar data as it is presented from the radar, before ATM processing and presentation.



- 3.6.2. The system shall be able to record the radar data regardless of the radar format.
- 3.6.3. The recording system shall support recording of Radar data from serial lines as well as from LAN, with support for at least;
- 3.6.4. LAN: TCP/IP (UDP Multicast, Broadcast), LLC.
- 3.6.5. SERIAL: (Sync/Async) HDLC or raw bitstream over X.20, X.21, X.26/27, or RS 232 / 422 / 485 / 423 / 530 / 449 or V35.
- 3.6.6. Replay of radar data shall be 100% pure representation of the recorded data.
- 3.6.7. Visualization during replay of radar should be possible to perform in both 2D and 3D
- 3.6.8. It should be possible to turn Target Labels on and off
- 3.6.9. It should be possible to turn Target trail dots on and off
- 3.6.10. It should be possible to adjust the length of the Target trail dots in seconds or in radar rev. updates
- 3.6.11. It should be possible to measure distance between multiple pairs of targets
- 3.6.12. It should be possible to measure distance between a target and an arbitrary point in the map.
- 3.6.13. Information about horizontal and vertical separation shall be displayed when measuring distance between targets
- 3.6.14. It should be possible to define the displayed information in Target Label and Target Details based on information from the selected radar
- 3.6.15. It shall be possible to only show selected targets and visibility of non-selected targets shall be controlled by the opacity settings
- 3.6.16. It should be possible to filter targets based on altitude and speed
- 3.6.17. It should be possible for the user to update the map
- 3.6.18. The radar presentation shall support .dxf and KML maps
- 3.6.19. Maps layers shall be possible to switch on and off
- 3.6.20. It should be possible to pan and zoom in 2D and rotate and tilt in 3D view
- 3.6.21. It should be possible to automatically create a .csv export file based on selected targets
- 3.6.22. For investigation purposes, a Scenario mode shall be created with extended inter-active features
- 3.6.23. Channels allocated for recording continuous radar data shall have a programmable alarm to detect loss of expected data. This shall be achieved by specific alarm management software and shall be capable of interfacing with an external alarm system. The Tenderer shall advise what type of interfaces are available.
- 3.7.0. CCTV Data
- 3.7.1. The recording system shall have the ability to record CCTV data with synchronous replay.



- 3.7.2. The system should have support for recording of CCTV from any of the following; Video input format NTSC, PAL, or SECAM as Composite (Coax) or S-Video, or Mpeg4 over LAN.
- 3.7.3. Compression shall be adjustable as shall be the Frame Rate.
- 3.7.4. It should be possible to configure recording based on Motion Detection.
  
- 3.8.0. Ethernet Data
- 3.8.1. The system shall support recording of Ethernet data and replay of this data back onto Ethernet.
- 3.8.2. The system shall support Berkley filters to allow for filtering of Ethernet data.



### 3.9.0. Screen Data

- 3.9.1. The system shall support recording of screen images. This recording shall be so called "at the glass" recording, thus record the actual screen image from the display or the screen cable.
- 3.9.2. The system shall support Display Port/Dual DVI/DVI/RGB signals and resolutions from 640 x 480 through 4096 x 2160.
- 3.9.3. Frame rates shall be configurable up to 10 frames per second
- 3.9.4. For recording of VGA screens, compression shall be configurable.
- 3.9.5. For recording of DVI screens, the picture shall be reproducible pixel by pixel

### **3.10. Replay Requirements**

#### 3.10.0. General Replay Presentation

- 3.10.1. The Replay Studio shall be WEB-based and not require any installation on the replay station.
- 3.10.2. When replaying multiple sources, regardless of type of source, the reproduction of the sources shall be time-synchronised.
- 3.10.3. A Replay Studio screen shall form the dominant Man Machine Interface and shall be of exceptionally good quality in its presentation of multiple data sources.
- 3.10.4. A full screen graphical presentation of real time and past history activity per channel (activity view) and the facilities for search, channel selection, start, stop, pause, instant replay (as a minimum) shall be fully described in the Tenderer's proposal.
- 3.10.5. It shall be the responsibility of the Tenderer to show the full extent of the replay capability of the system highlighting the typical response times to each feature. This data will be used to confirm the ATC specific application of the proposed system.
- 3.10.6. All recorded channels shall be available for monitoring on the Replay Control Panel. The Tenderer shall state the maximum number of channels that may be displayed on the Replay Control Panel Screen.
- 3.10.7. The system shall allow for replay of at least 16 channels simultaneously.
- 3.10.8. The search and replay for segments of voice, CCTV, radar or screen data shall be virtually instantaneous irrespective of when the recording happened.



### **3.11. General Replay Mode**

- 3.11.1. It shall be possible to select a combination of up to 16 channels of data for replay simultaneously and synchronously irrespective of the data on each channel.
- 3.11.2. It shall be possible to direct Audio channels to multiple speakers.
- 3.11.3. The Replay system shall permit the use of textual bookmarks to be used for later retrieval.
- 3.11.4. The Replay system shall feature Start, Stop, Pause, Loop, Instant Replay and Variable speeds for the replay facility.
- 3.11.5. The Replay system shall be capable of replaying from the main storage, Impound or a quarantine storage location.
- 3.11.6. There shall be a vertical screen cursor on the activity view screen with a changeable x-axis to zoom or reduce the time scale of the view.
- 3.11.7. There shall be possible to zoom and pan on the timeline by mouse scroll
- 3.11.8. There shall be possible to only display channels with activity for the current time period
- 3.11.9. Selected channels shall be highlighted in a significant colour with respect to the non-selected channels.
- 3.11.10. There shall be possible to individually change on the fly the replay target of each recorded channel
- 3.11.11. The system shall support searching for activity using meta-data, e.g. telephone numbers or frequencies
- 3.11.12. The system shall support showing activity in an event-based view, e.g. by telephone number
- 3.11.13. The system shall support showing activity data in a time-based view
- 3.11.14. ATM Replay Mode
- 3.11.15. The system shall interface with the Air Traffic Management System used for the main ATC display suites using an Application Programmable Interface (API).
- 3.11.16. The API shall allow, from the ATM system, all the replay facilities as in the General Replay Mode of 4.2 and shall be presented at a dedicated Incident Replay position.
- 3.11.17. In this mode the channels selected shall be simultaneously and synchronously replayed using the time derived from the ATM System.
- 3.11.18. In the event of a common clock time source the requirements of 4.3.3 shall be automatically met.
- 3.11.19. Accessing the API in ATM Replay Mode shall be subjected to user authorization.



### **3.12. Incident Management and Data Impounds**

- 3.12.1. The system shall have a tool dedicated to creating secure impounds of data of special interest.
- 3.12.2. The tool shall offer a user friendly and simple way to select specific data, including channel selections, and create a complete and secure archive, with all necessary replay software embedded.
- 3.12.3. The impound archive shall contain an automatically generated set-up package. After set-up the replay of the impounded data shall be controlled from the same replay client software as for the main system, including presentation of radar and CCTV.
- 3.12.4. The embedded replay client software shall only replay the data in the archive and shall not replay any data which has been tampered with. This shall ensure the data received is the original impounded and untouched data.

### **3.13. Data Storage and Archiving**

- 3.13.1. The Record and Replay system shall have an on-line capacity to store recorded data of all channels for up to 31 days on RAID 1, RAID 5 or RAID 6 disk systems.
- 3.13.2. The disks constituting the RAID storage shall be hot-swap.
- 3.13.3. The system shall offer possibilities for off-line storage of selected data.
- 3.13.4. The system shall offer possibility for scheduled or continuous backup of data to a secondary storage system. This secondary storage system can be a separate RAID (hosted by a separate computer), a network attached storage (NAS) or similar.
- 3.13.5. The system shall support multiple backup locations with individual retention configurations.
- 3.13.6. The system shall offer functionality for easy backup from the online storage onto removable media, preferably a disk-based solution.
- 3.13.7. The system shall support multiple storage locations with individual retention configurations
- 3.13.8. The system shall have support for cloud storage
- 3.13.9. Acquired data shall whenever possible, be recorded locally first, if the final storage location is remote

### **3.14. General**

- 3.14.1. System Software Updates
- 3.14.2. It shall be possible to update the Record and Replay System hardware and software to keep track of technology changes.
- 3.14.3. Software updates shall be possible to implement on the fly without affecting the recorder process.
- 3.14.4. The system shall support system-wide upgrade in a simple manner, e.g. by the click of a button
- 3.14.5. The system shall support an easy rollback option, e.g. by the click of a button



- 3.14.6. The system shall support automatic upgrades
- 3.14.7. The system shall preserve configuration on upgrade

### **3.15. Time code**

- 3.15.1. The Record and Replay System shall contain an internal time code generator accurate to within +/-20 seconds per week.
- 3.15.2. It system be possible to synchronize the internal time code to an external time source, for example a GPS or other standard time sources. It shall also be possible to synchronize to time code presented on the network connection or on the RS232 serial connection.
- 3.15.3. The system shall be capable of serving as a network time server.
- 3.15.4. The system shall include a spoken time channel as standard, where a simulated voice reading correct time is recorded onto a voice track.
- 3.15.5. It shall be possible to include the spoken time channel in a replay scenario.
- 3.15.6. The spoken time track should not use any audio interface hardware resources.

### **3.16. Languages**

- 3.16.1. All documentation and screen displays shall be supplied in English.
- 3.16.2. The language of the screen displays shall support customisation by the customer and enable change between languages during operating mode

### **3.17. Diagnostics**

- 3.17.1. The Record and Replay System shall include built-in tests that automatically monitor the status of the equipment, and initiating audible and/or visual alarms in the event of a failure. When the audible alarm is silenced a visual indication shall remain.
- 3.17.2. All alarms and warning messages will be recorded in the audit log that may be viewed by operators with adequate security rights. The audit log shall contain the time and date of the alarm, and a message describing the cause of the alarm.

### **3.18. ALARM SYSTEM**

- 3.18.1. The Alarm System shall distinguish between recoverable and non-recoverable alarms.
- 3.18.2. The Alarm System shall classify critical recoverable alarms as alarms.
- 3.18.3. The Alarm System shall classify any alarm that may lead to loss of data as critical.
- 3.18.4. The Alarm System shall classify non-critical recoverable alarms as warnings.
- 3.18.5. The Alarm System shall classify non-recoverable alarms as events.
- 3.18.6. The Alarm System shall store events in audit trail.
- 3.18.7. The Alarm System shall indicate with a symbol when there are new non-recoverable events present.
- 3.18.8. The Alarm System shall support disabling alarms or warnings



- 3.18.9. The Alarm System shall support shelving alarms or warnings
- 3.18.10. The Alarm System shall support sending alarms or warnings on email.
- 3.18.11. The Alarm System shall support sending alarms or warnings as SNMP traps.
- 3.18.12. The Alarm System shall support configuring alarms or warnings as audible.
- 3.18.13. The Alarm System shall support configuring alarms or warnings as watchdog.
- 3.18.14. The Alarm System shall support configuring alarms or warnings as auto-acknowledged.
- 3.18.15. The Alarm System shall have the capability of shelving an alarm or warning for a period of time.
- 3.18.16. The Alarm System shall indicate whether or not a recoverable alarm or warning is resolved.
- 3.18.17. The Alarm System shall indicate whether or not an alarm or warning is acknowledged.
- 3.18.18. The Alarm System shall use a colour-scheme to distinguish between system status
- 3.18.19. The Alarm System shall show a red light if there are unresolved alarms.
- 3.18.20. The Alarm System shall show a orange light if there are unresolved warnings
- 3.18.21. The Alarm System shall show a green light if there are no unresolved alarms or warnings.
- 3.18.22. The Alarm System alarm light shall blink if there are unacknowledged alarms or warnings

### **3.19. Environmental Requirements**

- 3.19.1. The Record and Replay System shall operate over the temperature range of +5 to +40 degrees C.
- 3.19.2. The Record and Replay System shall withstand a storage temperature within the range –20 to +60 degrees C.
- 3.19.3. The Record and Replay System shall operate over the Humidity range of 20% to 80% relative humidity, non-condensing throughout the temperature range of 8.1.
- 3.19.4. The Record and Replay System shall withstand a storage Humidity range 5% to 80% relative humidity, non-condensing throughout the temperature range of 8.2.

### **3.20. Physical**

- 3.20.1. The Record and Replay System shall be suitable for installation into a 19" rack either on shelves or by fixed runners.
- 3.20.2. The general recorder signal connectivity shall be via Krone connector blocks mounted at the rear of the 19" rack or suitable E1 type connectors.
- 3.20.3. The physical installation shall show a high degree of cable management both within the racks and in the cable tray routes to and from the racks and sources.





#### **4.1 INSTRUCTIONS TO TENDERERS:**

##### **Tenderers Queries**

Questions arising during the tender period shall be directed to the Chief Air Traffic System Engineer.

**Mr. Simphiwe Maseko**

**King Mswati III International Airport, Mpaka**

**Tel: +268 23335327**

**Email: simaseko@eswacaa.co.sz**

- 4.1.1 Tenderers finding discrepancies, ambiguities or omissions in the Tender Documentation shall at once notify ESWACAA's Chief Air Traffic Systems Engineer who will send written instructions or explanations to all Tenderers.
- 4.1.2 Tenderers may, during the Tender Period, be advised by Addenda of any additions, deletions or alterations to the Tender Documentation. All such changes shall be covered in the Tender and shall become part of the project.
- 4.1.3 Tenderers should deposit Tender Returns in full compliance with the tender documents provided by 12:00 p.m. on the **07 December 2021** into the Tender Box at the reception of the ESWACAA Office Complex at Matsapha. International Companies who are unable to deposit Tender Documents into the Tender Box can courier the sealed tender documents to the address below in 4.1.4. and ESWACAA shall in turn deposit the Tender Documents on their behalf.
- 4.1.4 Tenders shall be enclosed in a sealed envelope, referenced as Tender No. 07 of 2021/22 and addressed to:



The Secretary to the Tender Board,  
Eswatini Civil Aviation Authority,  
Matsapha International Airport,  
P.O Box D361,  
The Gables.

4.1.5 Tenders should not display any franking or other indications of the Tenderer's identity.

The submission of a Tender by the Tenderer will be construed as an acceptance by him of all existing conditions, the requirements of the Tender Enquiry Documents and as a waiver of all claims for extra compensation on account of additional work caused by existing conditions and the requirements of the Tender Enquiry Documents.

4.1.6 Tenderers are urged to inform the Employer's Chief Air Traffic Engineer of your decision by phone or via email should they decide not to tender.

## **4.2 TENDER RETURN REQUIREMENTS:**

### **4.2.1 Technical Proposal**

4.2.1.1 Describe your Company's qualifications, references on projects of similar nature and establish the ability of your agency to meet the technical specifications.

4.2.1.2 Describe the qualifications of all personnel who are to be assigned to or are proposed for the provision of the service. Information about education, training, experience and certifications should be included.

4.2.1.3 Provide the names, addresses and phone numbers of three references

Submission of the wrong type of Technical Proposal shall result in the proposal being deemed non-responsive. The Technical Proposal shall be placed in a sealed envelope clearly marked "TECHNICAL PROPOSAL".

The Proposal shall consist of a Technical Proposal and a Financial Proposal, which shall be in **separate** sealed envelopes marked "Technical Proposal – RFP 07 of 2021/2022" and "Financial Proposal - RFP 07 of 2021/2022", respectively. The two envelopes must be enclosed in a sealed outer envelope, which shall be marked: "Request for Proposal: Supply and Installation of an ATS Digital Recorder and Reply System,



Tender No. 07 of 2021/22- Do Not Open before 12:00 noon (Eswatini time) on 7th December 2021 and addressed to :

“The Secretary to the Tender Board,  
Eswatini Civil Aviation Authority,  
Matsapha International Airport,  
P.O Box D361, The Gables”.

Failure to mark the envelope clearly and accurately may result in rejection of the application

#### 4.3 PROPOSAL DATA SHEET

Paragraph Reference	
	<b>Definitions</b>
	Name of the Agency: <b>Eswatini Civil Aviation Authority (ESWACAA)</b>
	Name of Assignment: <b>SUPPLY AND INSTALLATION OF AN ATS DIGITAL RECORDER AND REPLAY FOR KING MSWATI III INTERNATIONAL AIRPORT</b>
	<b>Validity</b>
	Proposals must remain valid for 90 (ninety) days after the submission date.
	<b>Clarification and Amendment of RFP Documents</b>



	<p>Clarifications may be requested in writing (email only), but not later than 14 Days prior to the deadline. The email address for requesting clarifications: <a href="mailto:simaseko@eswacaa.co.sz">simaseko@eswacaa.co.sz</a>.</p>
	<p><b>Preparation of the Technical Proposal</b></p>
	<p>The following documents shall be included as Appendices to the Proposal (in case of a joint venture or consortium each member must provide the documents):</p> <ul style="list-style-type: none"> <li>• Signed Declaration of Eligibility</li> <li>• Certified copy of a valid Trading Licence;</li> <li>• <b>Original</b> and valid Tax Compliance Certificate;</li> <li>• Certified copy of an official statement of the Directors and alternative directors (i.e. Form 'J') or owner/s in the case of unincorporated persons;</li> <li>• Certified copy of an official statement of the annual summary of share capital and shares (i.e. Form 'C' or equivalent) for incorporated persons; and</li> <li>• Certified copy of Labour Compliant Certificate (if tenderer is an employer).</li> <li>• Foreign companies must also attach statutory documents and where language on document is not the English language, companies must translate documents by using certified certificate translator of their choice</li> </ul>
	<p><b>Project Manager</b></p>
	<p>Mr. Simphiwe Maseko</p>
	<p><b>Packing and Submission of the Proposal</b></p>
	<p>Companies must submit One <b>(1)</b> original and three <b>(3)</b> copies of the Proposal.</p>



	The Proposal should be submitted at Eswatini Civil Aviation Authority, <b>Matsapha Airport</b> at the latest by <b>12:00pm (Eswatini time) on the 7December 2021</b> . Late applications will NOT be considered.

#### 4.4 Qualification Information

The Bidder shall supply the following information;

4.4.1 Constitution or legal status of Bidder: *[attach copy]*

4.4.2 Power of attorney of signatory of Bid: *[attach]*

4.4.3 Development work related to this project performed in the last two years,

Project name	Name of client and contact person	Type of work performed and year of completion	Value of contract
(a)			
(b)			
(c)			
(d)			



Experience of key personnel proposed for administration and execution of the contract. Attach biographical data.

Position	Name	Years of experience (general)	Years of experience in proposed position
(a)			
(b)			
(c)			
(d)			



## 5 DECLARATION OF ELIGIBILITY

*[The Company must provide a signed declaration on its company letterhead in the following for If the Proposal is being presented by a joint venture or consortium all members must each sign own declaration.]*

[>>>Name of Company, Address, and Date>>>]

To: **The Secretary to the Tender Board,  
Eswatini Civil Aviation Authority  
P.O BOX D361  
THE GABLES  
H126**

Dear Sirs,

Re Tender Reference: 07 of 2021/2022

We hereby declare that:-

- (a) I/We, including any joint venture partners or consortium partners, are a legal entity and have the legal capacity to enter into the contract;



- (b) I/We are not insolvent, in receivership, bankrupt or being wound up, our affairs are not being administered by a court or a judicial officer, our business activities have not been suspended, and we are not the subject of legal proceedings for any of the foregoing;
- (c) I/We have fulfilled our obligations to pay taxes.
- (d) I/We have not, and our directors or officers have not, been convicted of any criminal offence related to our/their professional conduct or the making of false statements or misrepresentations as to their qualifications to enter into a contract within a period of five years preceding the commencement of the procurement proceedings; and directors police clearances are attached; and
- (e) I/We do not have a **conflict of interest** in relation to the procurement requirement.

Signed .....  
 Authorised Representative

Date .....

## 6 EVALUATION OF THE TECHNICAL PROPOSALS

CRITERIA	WEIGHING FACTORS	SCORE
<b>Adequacy for the Project</b>	<ul style="list-style-type: none"> <li>✓ Relevant technical expertise</li> <li>✓ Competence of key management, professional and technical personnel</li> <li>✓ Size of team to handle project</li> <li>✓ Technical Team CVs</li> </ul>	<b>30%</b>
<b>Relevant Experience</b>	<ul style="list-style-type: none"> <li>✓ Previous projects of this nature and magnitude</li> <li>✓ Role of tenderer in previous projects</li> </ul>	<b>20%</b>





<b>Methodology And Specification</b>	<ul style="list-style-type: none"> <li>✓ Delivery of the service</li> <li>✓ Roles of each team member</li> <li>✓ Compliance to quality standards</li> <li>✓ Proposal meets outlined technical specification</li> <li>✓ After sales support and warranty</li> </ul>	<b>40%</b>
<b>Local Participation</b>	<ul style="list-style-type: none"> <li>✓ What percentage of management and technical team is local</li> <li>✓ Joint venture with local company (if service provider is foreign)</li> <li>✓ Skills transfer to locals</li> </ul>	<b>10%</b>
<b>TOTAL</b>		<b>100%</b>

**NB: The combined scores will be as follows:**

**Technical Proposal = 80%**

**Financial Proposal = 20%**

**For the Financial Proposal to be opened by the Employer, the Service Provider must score 80% and above. If the Service Provider is below the 80% threshold, the Financials for that particular Service Provider will not be opened.**

## **GENERAL CONDITIONS OF CONTRACT**

### **1. PREAMBLE**

Whereas the Client is desirous of carrying out a Project on Provision of Flight Inspection Services to ESWACAA’s landing and navigational aids equipment has issued a tender (**Tender Number: RFP 07 OF 2021**) for the provision of professional services in this regard, pursuant to which the Contractor has been appointed [**Letter attached dated 14 January 2022**] to undertake the Project.



## 2. INTERPRETATION

The headings to the articles in this agreement and the index to this agreement shall be for reference purposes only and shall not affect the interpretation of the paragraphs to which they relate.

Unless the context indicates to the contrary, an expression which denotes:-

- (i) either gender shall include the other gender;
- (ii) a natural person shall include an artificial person;
- (iii) the singular shall include the plural and *vice versa*;

The following expressions shall bear the meaning assigned to them below, and cognate expressions shall bear corresponding meanings:-

- i. "The Contract or Consultancy Agreement" means the Consultancy Agreement entered into between the Eswatini Civil Aviation Authority and the Service Provider.
- ii. "The Project/Services" means the conduct of Providing Supply and Installation of ATS Digital Recording and Replay System in accordance with the guidelines stipulated in the Tender document/ the Terms of Reference/ Request for Proposals and Consultant Technical Proposal which forms an integral part of this Agreement.
- iii. "GCC" means these General Conditions of Contract.
- iv. "Sub Consultant" means any person or entity to whom/which the Consultant subcontracts any part of the Project.



- v. "Currency" means legal tender currently used in Eswatini.
- vi. "Party" means the Client or the Consultant as the case may be and Parties means both of them.
- vii. "Firm(s)" means any entity or partnership within the Contractor network of separate member firms, each of which is a separate and independent legal entity.
- viii. "Applicable Law" means the laws and any other instruments having force of law in Eswatini as they may be issued from time to time.
- ix. "SCC" means the Special Conditions of Contract by which the GCC may be amended or supplemented.

### **3. LAW GOVERNING THE CONTRACT**

The Applicable Laws of Eswatini shall govern this contract, its meaning and interpretation and relation between the Parties.

### **4. Language**

This Contract has been executed in the English language which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

### **5. Notices**

#### **5.1 Delivery of Notice**

Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent to such Party at the address specified in the Special Conditions of Contract SCC.



## **5.2 Change of Address**

A Party may change its address for notice hereunder by giving the other Party notice in writing of such change to the address specified in the SCC.

## **5.3 Location**

The Services shall be performed at such locations as are specified in Appendix A hereto and, where the location of a particular task is not so specified, at such locations, whether in Eswatini or elsewhere, as the Authority may approve.

## **5.4 Authority of Member in Charge**

In case the Supply and Installation Service Provider contractor consists of a joint venture/ consortium/ association of more than one entity, the Members hereby authorize the entity specified in the SCC to act on their behalf in exercising all the Supply and Installation service provider's rights and obligations towards the Authority under this Contract, including without limitation the receiving of instructions and payments from the Authority.

## **5.5 Authorized Representatives**

Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the Authority or the Supply and Installation Service Provider may be taken or executed by the officials specified in the SCC.

## **5.6 Taxes and Duties**

The Supply and Installation Service Provider, sub-contracted service providers, and their Personnel shall pay such indirect taxes, duties, fees, and other impositions levied under the



Applicable Law as specified in the SCC, the amount of which is deemed to have been included in the Contract Price.

## **6 Fraud and Corruption**

The Supply and Installation Service Provider(s) should be aware that a service provider who engages in corrupt, collusive or fraudulent practices will have their proposals rejected or Contract terminated in accordance with Clause GCC (c), and may further be subject to prosecution under the laws of Eswatini.

### **6.1 Commission and Fees**

It is required that the successful Supply and Installation Service Provider will disclose any commissions or fees that may have been paid or are to be paid to agents, representatives, or commission agents with respect to the selection process or execution of the contract. The information disclosed must include at least the name and address of the agent, representative, or commission agent, the amount and currency, and the purpose of the commission or fee.

## **7 Commencement, Completion, Modification and Termination of Contract**

### **7.1 Effectiveness of Contract**

This Contract shall come into effect on the date the Contract is signed by both Parties or at such other later date as may be stated in the SCC. The date the Contract comes into effect is defined as the Effective Date.

### **7.2 Commencement of Services**

The Supply and Installation Service Provider shall begin carrying out the Services not later than the number of days after the Effective Date specified in the SCC.



### **7.3 Expiration of Contract**

Unless terminated earlier this Contract shall expire at the end of the time period after the Effective Date, as specified in the SCC.

### **7.4 Modifications or Variations**

Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the Scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.

## **8 Force Majeure**

### **8.1 Definition**

For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

### **8.2 No Breach of Contract**

The failure of a Party to fulfil any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.



### **8.3 Extension of Time**

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

### **8.4 Payments**

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Supply and Installation Service Provider Contractor shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

## **9 Termination**

### **9.1 By the Authority**

The Authority may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause GCC 9.1. In such an occurrence the Authority shall give not less than thirty (30) days' written notice of termination to the Supply and Installation Service Provider Contractor, and sixty (60) days' in the case of the event referred to in (e).

- a)** If the Supply and Installation Service Provider does not remedy a failure in the performance of their obligations under the Contract, within thirty (30) days after being notified or within any further period as the Authority may have subsequently approved in writing.
- b)** If the Supply and Installation Service Provider becomes insolvent or bankrupt.
- c)** If the Flight Inspection Service Provider, in the judgment of the Authority has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.



- d) If, as the result of Force Majeure, the Supply and Installation Service Provider are unable to perform a material portion of the Services for a period of not less than sixty (60) days.
- e) If the Authority, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.
- f) If the Supply and Installation Service Provider fails to comply with any final decision reached as a result of arbitration proceedings hereof.

## 9.2 By the Supply and Installation Service Provider

The Supply and Installation Service Provider(s) may terminate this Contract, by not less than thirty (30) days' written notice to the Authority, such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (c)

- a) If the Authority fails to pay any money due to the Supply and Installation Service Provider pursuant to this Contract and not subject to dispute hereof within forty-five (45) days after receiving written notice from the Supply and Installation Service Provider that such payment is overdue.
- b) If, as the result of Force Majeure, the Supply and Installation Service Provider is unable to perform a material portion of the Services for a period of not less than sixty (60) days.
- c) If the Authority fails to comply with any final decision reached as a result of arbitration.

## 9.3 Payment upon Termination

Upon termination of this Contract pursuant, the Authority shall make the following payments to the Flight Inspection Service Provider:





- a) Payment pursuant to Clause GCC 6 for Services satisfactorily performed prior to the effective date of termination;
- b) Except in the case of termination pursuant to paragraphs (a) through (c), and (f) of Clause **GCC** , **reimbursement** of any reasonable cost incident to the prompt and orderly termination of the Contract, including the cost of the return travel of the Personnel and their eligible dependents.

## **10 Obligations of the organisational The flight inspection services Provider**

### **10.1 General**

#### **10.1.1 Standard of Performance**

The Supply and Installation Service Provider shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Supply and Installation Service Provider shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Authority, and shall at all times support and safeguard the Authority's legitimate interests in any dealings with Sub-contracted Supply, Installation, Commissioning and Training Contractor or third Parties.

#### **10.1.2 Conflict of Interests**

The Supply and Installation Service Provider shall hold the Authority's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.



### **10.1.3 Flight Inspection Services are Not to Benefit from Commissions, Discounts, etc.**

The payment of the Supply and Installation Service Provider shall constitute the Flight Inspection Service Provider's only payment in connection with this Contract or the Services, and the Supply and Installation Service Provider Contractor shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Supply and Installation Service Provider Contractor shall use their best efforts to ensure that the Personnel, any Sub-contracted The flight inspection services Provider, and agents of either of them similarly shall not receive any such additional payment.

### **10.1.4 The Supply and Installation Service Provider and Affiliates Not to be Otherwise Interested in Project.**

The Supply and Installation Service Provider service provider agrees that, during the term of this Contract and after its termination, the Supply and Installation Service Provider and any entity affiliated with the Flight Inspection Service Provider, as well as any Sub- flight inspection services provider) and any entity affiliated with such Sub- Supply and Installation services provider, shall be disqualified from providing goods, works or services (other than consulting services) resulting from or directly related to the Supply and Installation Service Provider Contractor's Services for the preparation or implementation of the project.

### **10.1.5 Prohibition of Conflicting Activities**

The Supply and Installation Service Provider shall not engage, and shall cause their Personnel as well as their Sub- contracted flight inspection services and their Personnel not to engage, either



directly or indirectly, in any business or professional activities which would conflict with the activities assigned to them under this Contract.

### **10.1.6 Confidentiality**

Except with the prior written consent of the Authority, the Supply and Installation Service Provider and the Personnel shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor shall the Supply and Installation Service Provider and the Personnel make public the recommendations formulated in the course of, or as a result of, the Services.

### **10.1.7 Insurance to be Taken Out by the Supply and Installation Service Provider Contractor**

The Supply and Installation Service Provider Contractor (a) shall take out and maintain, and shall cause any Sub-contracted flight inspection service providers to take out and maintain, at their (or the Sub-contracted flight inspection services', as the case may be) own cost but on terms and conditions approved by the Authority, insurance against the risks, and for the coverage, as shall be specified in the SCC; and (b) at the Authority's request, shall provide evidence to the Authority showing that such insurance has been taken out and maintained and that the current premiums have been paid.

### **10.1.8 Flight Inspection Service Provider's Actions Requiring Authority's Prior Approval**

The Supply and Installation Service Provider shall obtain the Authority's prior approval in writing before taking any of the following actions:

(a) Entering into a subcontract for the performance of any part of the Services,



- (b) Appointing such members of the Personnel not listed by name in Appendix C, and
- (c) Any other action that may be specified in the SCC.

### **10.1.9 Reporting Obligations**

- (a) The Supply and Installation Service Provider shall submit to the Authority the reports and documents, in the form, in the numbers and within the time periods set forth in the said Appendix.
- (b) Final reports shall be delivered in any format appropriate in addition to the hard copies specified in said Appendix.

### **10.1.10 Documents Prepared by the Supply and Installation Service Provider to be the Property of the Authority**

- (a) All reports, other documents and software submitted by the Supply and Installation Service Provider Contractor under this Contract shall become and remain the property of the Authority, and the Supply and Installation Service Provider shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Agency, together with a detailed inventory thereof.
- (b) The Supply and Installation Service Provider Contractor may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be specified in the SCC.



### **10.1.11 Organisational Flight Inspection Services Provider's Personnel**

#### **10.1.12 Description of Personnel**

The Supply and Installation Service Provider shall employ and provide such qualified and experienced Personnel and Sub- contracted flight inspection services providers (s) as are required to carry out the Services. The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Flight Inspection Service Provider's Key Personnel are described in Clause 4.4.

#### **10.1.13 Removal and/or Replacement of Personnel**

Except as the Authority may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Flight Inspection Service Provider, such as retirement, death, medical incapacity, among others, it becomes necessary to replace any of the Key Personnel, the Supply and Installation Service Provider shall provide as a replacement a person of equivalent or better qualifications.

- (a) If the Authority finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Supply and Installation Service Provider shall, at the Authority's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Authority.
- (b) The Supply and Installation Service Provider shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

## **11 Obligations of the Authority**



## **11.1 Assistance**

The Authority shall use its best efforts to provide the Supply and Installation Service Provider such assistance as specified in the SCC.

## **11.2 Change in the Applicable Law Related to Taxes and Duties**

If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost incurred by the Supply and Installation Service Provider in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Supply and Installation Service Provider under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Clauses GCC 5. 6.

## **11.3 Payments to the Supply and Installation Service Provider Contractor**

Payment shall be based on agreed fee rates for nominated personnel and certain type or grade of personnel and reimbursable items, using either actual expenses or the agreed unit prices.

## **11.4 Contract Unit Prices and Reimbursable**

(b) The unit prices and reimbursable payable in the currency is set forth in the SCC.

(c) The unit price and reimbursable payable in local currency is set forth in the SCC.

## **11.5 Payment for Additional Services**

For the purpose of determining the remuneration due for additional services as may be agreed.



Payments will be made to the account of the Supply and Installation Service Provider Contractor and according to the payment schedule stated in the SCC. Unless otherwise stated in the SCC, the first payment shall be made against the provision by the Supply and Installation Service Provider of an advance payment guarantee for the same amount, and shall be valid for the period stated in the SCC. Such guarantee shall be in the form set forth, or in such other form, as the Authority shall have approved in writing. Any other payment shall be made after the conditions listed in the SCC for such payment have been met, and the Supply and Installation Service Provider has submitted an invoice to the Authority specifying the amount due.

### **11.6 Good Faith**

The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

### **11.7 Amicable Settlement**

The Parties agree that the avoidance or early resolution of disputes is crucial for a smooth execution of the Contract and the success of the assignment. The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

### **11.8 Dispute Resolution**

Any dispute between the Parties as to matters arising pursuant to this Contract that cannot be settled amicably within thirty (30) days after receipt by one Party of the other Party's request for such amicable settlement may be submitted by either Party for settlement in accordance with the provisions specified in the SCC.



