**AIR TRAFFIC AND NAVIGATION SERVICES SOC. LTD**

**REPUBLIC OF SOUTH AFRICA**



**APPOINTMENT OF A SERVICE PROVIDER FOR SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF AN AERONAUTICAL INFORMATION MANAGEMENT (AIM) SYSTEM**

**ATNS/TPQ/RFP047/FY22.23/AIM SYSTEM REPLACEMENT**

**VOLUME 3**

**PROJECT MANAGEMENT AND SYSTEM ENGINEERING REQUIREMENTS**

**OCTOBER 2022**

**The information contained within this document is confidential to ATNS in all respects and it is hereby acknowledged that the information as provided shall only be used for the preparation of a response to this document. The information furnished will not be used for any other purpose than stated and that the information will not directly or indirectly, by agent, employee or representative, be disclosed either in whole or in part, to any other third party without the express written consent by the Company or its representative.**

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| ABBREVIATIONS |

ATC Air Traffic Control

ATNS Air Traffic and Navigation Services SOC LTD

CDRL Contract Data Requirements List

COTS Commercially off-the shelf

CVOR Conventional VOR

DME Distance Measuring Equipment

DVOR Doppler VOR

ICAO International Civil Aviation Organization

IEEE Institute of Electrical and Electronics Engineering

LAN Local Area Network

OJTI On-the-Job Training Instructor

PBU Period of Beneficial Use

PMP Project Management Plan

PQP Project Quality Plan

QA Quality Assurance

RAM Reliability, Availability and Maintainability

RAMPP Reliability, Availability and Maintainability Program Plan

RFT Request for Bidder

RCMMS Remote Control Monitoring and Maintenance System

SEMP System Engineering Management Plan

TEMP Test and Evaluation Master Plan

TP Training Plan

URS User Requirement Statement

VOR VHF Omni-Directional Radio Range

WBS Work Breakdown Structure

1. **GENERAL INSTRUCTIONS TO BIDDERS**

The Bidder shall submit all responses, diagrams, project management documentation and drawings according to the GENERAL INFORMATION AND INSTRUCTIONS TO BIDDERS document and in the English language.

To assist Bidders only, each paragraph or article has been appended throughout with the letters “(M)”, “(D)”, “(O)” or “(I)”, to indicate whether the requirement is **M**andatory, **D**esirable, **O**ptional or for **I**nformation only.

**ALL RESPONSES TO THE REQUIREMENTS IN THIS DOCUMENT SHALL BE PROVIDED AS FOLLOWS:**

BIDDERS SHALL RESPOND IN FULL TO EACH ITEM IN THE FORMAT PROVIDED AND REFERENCES (CHAPTER, SECTION, PAGE NUMBER, PARAGRAPH NUMBER) TO DOCUMENTS AND RELEVANT INFORMATION SUPPORTING THE RESPONSES SHALL BE INDICATED IN THE SPACE PROVIDED. THIS INFORMATION WILL BE THE **ONLY RESPONSE USED FOR THE EVALUATION AND ASSESSMENT**.

Responses, provided in the space allowed, that are not clear or inadequate or the lack thereof shall be interpreted as **“Not Compliant”** even though the compliance column is declared as “Comply” and/or the Bidder’s offer meets the requirement. Bidder’s shall ensure that each response correctly addresses the requirement stated. Responses not addressing the requirement of the specific paragraph shall be interpreted as **“Not Compliant”**.

Bidder’s shall declare compliance to each and every paragraph of this document in the column labelled “Compliance” as follows:

C: fully compliant = 2 points:

PC: partly compliant = 1 point;

NC: not compliant = 0 points.

Noted: Noted and accepted (applicable to paragraphs marked as “I”, not containing requirements)

Bidder’s shall, for paragraphs declared “PC” or “NC”, include a statement as to the nature of the variation and may additionally supply supporting information in the space provided to demonstrate how the proposal meets the needs of ATNS.

**Paragraphs marked “(M)”, indicates that the requirement is mandatory and proposals not compliant with the requirement shall be disqualified for further evaluation.**

Paragraphs marked “(D)”, indicates that the requirement is desirable, and the Bidder is expected to declare their level of compliance, formal response and reference supporting documents.

Paragraphs marked “(I)”, indicates that the requirement is for information, however the Bidder is still expected to respond and provide information if requested. Any information gathered herein may form part of the contractual terms.

Paragraphs marked “(O)”, indicates that the requirement is optional, and the Bidder may decide how to respond.

# PROJECT MANAGEMENT

## General

##### The Contractor shall establish, implement and maintain extensive and comprehensive Project Management plans throughout the period of any Contract arising from this RFT. These Plans will be submitted to the Company for information and reporting purposes. (D)

|  |  |
| --- | --- |
| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### Draft Project Management plans, specific to this scope shall be submitted with the Bid to demonstrate compliance and will be refined as necessary during the Contract development and reporting phases. (D)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Project Management of the Project is the responsibility of the Contractor. Submitting the Project Management Plans to and their acceptance by the Company do not imply approval or concurrence by the Company nor does it absolve the Contractor from the Project Management role and responsibilities. (D)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Contractor shall divide the plans into activities, which can be managed, monitored, and measured in terms of duration, cost, risk and resources. These activities shall be organised into logical networks. Such networks shall be used by the Contractor as the main framework for planning, budgeting, controlling and reporting to the Company throughout the period of the Contract. These networks shall be closely linked to the various System Engineering Plans and activities to ensure the rapid and accurate reflection of any System Engineering decision. A draft framework of measuring project activities (in terms of duration, cost, risk and resources) shall be submitted as part of the Bid. (D)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Bidder shall submit a draft Master Project schedule that addresses the scope of the requirements of this Bid in Microsoft Project® and PDF format. (D)

|  |  |
| --- | --- |
| **COMPLIANCE** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The project duration shall not exceed 36 months from contract signature and po issuance.(D)

|  |  |
| --- | --- |
| **COMPLIANCE** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### Project Management shall encompass the management of all the various facets of the project as defined in the Contract. These including design, development, production, supply of ancillary equipment, resource allocation and control, management of sub-contractors, on-site installation and construction, testing, transitioning, commissioning, transportation, all Integrated Logistic Support activities, staff movements and subsistence, etc. The Bidder shall clearly demonstrate these aspects in all draft Project Management plans and the project schedule submitted. (D).

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The draft Project Schedule shall include all key milestones, identifies the critical path, resource requirements and linked to the WBS. The Master Project Schedule shall be broken down to a sufficient level of detail to enable the management and monitoring of project execution from Contract award to the end of PBU (*refer to Volume 4 for definition of PBU*). (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Project Management Plan

##### Bidder shall submit a draft Project Management Plan (PMP) with the Bid. The Project Management Plan will be a formally accepted and approved document used to manage and control project execution throughout the project life-cycle phases. The PMP will detail all the activities necessary to successfully complete the project and shall refer to the other plans developed under the project. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Project Status Reports

### General

##### The Contractor shall provide to the Company at two-weekly intervals (or at other mutually agreed intervals) Project Status Reports, which will capture the project performance to date and makes recommendations for future implementation and changes. Project status shall be presented relative to schedule critical path and cost and quality of incremental deliverables. A draft Project Status report shall be submitted with the Bid. (D) .

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### A draft Risk Report prepared in line with the requirements in 3.4 shall be submitted with the Bid. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

#####  Project status reporting shall also include the Master Project Schedule and Schedule Analysis. The Bidder shall clearly describe the methodology that will be applied for schedule analysis. (D)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

### Master Project Schedule

##### The Contractor shall develop, maintain, and track progress against a Master Project Schedule. The Project Schedule shall be organized to depict the flow of work, the task interdependencies and the interrelationships necessary to accomplish the program objectives from Contract Award to completion of the contract. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Contractor shall ensure that the Project Schedule includes all contractually specified milestones, identifies the critical path, and is linked to the WBS. The Master Project Schedule shall be broken down to a sufficient level of detail. The schedule shall also address the Logistic Support Programme. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Work Breakdown Structure (WBS)

##### The Bidder shall submit a draft WBS that unambiguously describes the **scope, deliverables and outcomes** of the AIM System Replacement Project. The WBS shall be presented in a Tree Structure.

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

### Activity List

##### Accompanying the WBS, a draft Activity List shall also be submitted with the Bid and maintained throughout the project lifecycle. The activity list shall define at least the following attributes: (D)

* Activity label or name;
* Unique activity identifier;
* Work-package identifier;
* Scope of work description for each activity;
* Resources assigned to execute the work; and
* Where the work is to be performed.

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Data Management

##### The Contractor shall establish and operate a data management system as part of the overall project management scheme. The plan shall define the methods for identification, preparation, tracking and updating of all relevant data. A draft plan shall be submitted with theBid.(D)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Progress Review Meetings

### Requirements

##### The Contractor shall attend Progress Review Meetings at monthly intervals (or at other mutually agreed intervals) to present a Project Status Report. The regular Progress Review meetings shall be held in South Africa at either the Contractors premises or at the Company’s Office, or at other mutually agreed locations. A copy of the Contractor’s written Project Status Report and meeting presentation material shall be submitted to the Company at least one week prior to the Progress Review Meeting. (I)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

### Matters for Consideration

##### The Contractor shall make a presentation on the progress of the project to date, a projection of the effects of variations from the previous schedule, and any action taken or recommendations for action to rectify existing or anticipated problems. (I)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Contractor shall present all aspects of the project status. The Contractor shall present a detailed, accurate summary of the accomplishments of the Contractor and subcontractors to date. (I)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The presentation shall include a forecast of trends in terms of technical, cost and schedule performance through to completion of the Contract. (I)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The presentation shall focus attention upon, and provide insight into, the interrelationships among the project elements including subcontractors. (I)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

#####  The presentation shall focus attention upon Design and Management problems. (I)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### Significant slippages, obstacles, or discrepancies between planned, actual and forecast project progress shall be addressed through a narrative analysis of cause, effect and proposed or completed corrective action. (I)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Contractor shall present, at the request of the Company, any data for proposed work constituting a variation to the Contract or Engineering Change Proposals. The Contractor shall provide supporting data on assumptions made and methodologies used in arriving at specific conclusions, recommendations and alternatives to the design approach. . (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

### Documentation

##### The Contractor shall submit a draft Agenda for Company concurrence at least one (1) week prior to a scheduled Progress Review Meeting. The Company may submit items for inclusion in the Agenda. (I)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Contractor shall provide administrative support for the meeting and prepare and distribute a draft record of the minutes of the meeting within three (3) days of the meeting. (I)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The minutes shall include an Action updated Tracking List (I).

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Bidder’s Experience and Track Record

##### The Bidder shall provide at least two (2) contactable customer/project references where a similar AIM system was installed and is currently operational. (D)

|  |  |
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| **COMPLIANCE** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The bidding entity whether bidding individually or collectively (JV, Consortium or Partnership), shall possess individual entity experience or skills in at least the areas of communications systems and AIM systems. (D)

|  |  |
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| **COMPLIANCE** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Project Resources

## Resumes of Key Personnel

##### Bidders shall submit resumes of key personnel, suitably qualified and experienced to execute all aspects of the envisaged scope of works. (D)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Resource Allocation Plan

##### Bidders shall submit a Resource Allocation Plan, which identifies all the resources, including subcontract resources, plant and equipment and facilities to be applied to each element of the project as detailed in 2.4. . (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Bidder shall ensure that only appropriately qualified and experienced personnel will be employed on the tasks. The Company shall retain the right to direct the Contractor to remove from the project any personnel considered by the Company to be inappropriately qualified or experienced, or unacceptable to the Company. (D)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### . The Bidder shall submit a full project organization structure, specific with relevant names and resumes. (D)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

# SYSTEM ENGINEERING

## System Engineering Master Plan

##### The Contractor shall be responsible for the total performance of the system. The Bidder shall indicate in their proposal how aspects of quality and performance will be managed and assured throughout the project lifecycle(D)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### Bidders shall ensure that every subsystem and its interfaces will comply with all the requirements allocated to that subsystem. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### Bidders shall clearly indicate what will be expected as customer furnished information or equipment**. (I)**

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The interfaces and/or infrastructure to be provided by or required from the Company shall also be indicated in the system definition. (D)

|  |  |
| --- | --- |
| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### Bidders shall submit a detailed system breakdown structure of the AIM System offered, depicting the hierarchy of products and processes that comprise the system architecture. (D)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Bidder shall submit a draft System Engineering Management Plan (SEMP) consistent with the scope of the AIM System Replacementrequirements whichprovides a framework that supports the integration of engineering activities. The plan shall contain at least the following elements:

##### System Engineering Process

* Integration of System Engineering effort
* Implementation Tasks
* Reviews and Audits

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### Specific testing and evaluation procedures for the various Acceptance Tests (e.g. Factory Acceptance Testing, Site Acceptance Testing, Physical Inspections, Final Acceptance, etc.) will be defined in the Test and Evaluation plan for each deliverable. A draft Test and Evaluation Plan or sample shall be submitted as part of the Bid. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### Simulated tests or demonstrations of specific interactive elements of the AIM system will be requested by the Company where it may be deemed necessary, prior Critical Design review baseline sign-off.

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Contractor shall prepare, implement and maintain a Test and Evaluation Master Plan (TEMP) that describes the Contractor’s plan for all Tests and Evaluations to be undertaken in demonstrating compliance with the technical, operational, contractual and performance requirements of the project. The Plan shall include an Acceptance matrix, which identifies all deliverables and methods of testing proposed by the A draft TEMP specific to the project scope shall be submitted with the Bid (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Installation, Transition and Commissioning (ITC) Plans

##### The Bidder shall submit a draft Installation, Transitioning and Commissioning Plan to clearly indicate the methodology, risks and mitigation measures for the installation and final commissioning of the new systems, prior to, during and for a reasonable stabilization period after the successful commissioning of the new AIM System. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The ITC plan shall include contingency measures which will ensure that the current services provided remain uninterrupted throughout the project implementation period. The current AIM system shall be decommissioned only after successful acceptance of the offered systems and an agreed stabilisation period. Plan shall indicate how the transition from the existing installation will be achieved, leading to the commissioning and acceptance of the new system. The Plans are required to indicate how the Contractor will plan and manage the installation and transition, including the cutover and commissioning procedures and the decommissioning and withdrawal from service of existing services. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Health and Safety Management Plan

##### The Contractor shall prepare a draft Health and Safety Management plan for the implementation of the project covering all envisaged risks related to the supply, delivery, installation and commissioning of the offered AIM system. The Plan shall comply with the Occupational Health and Act of South Africa (Act 85 of 1993) and applicable regulations. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Risk Management Plan

### Risk Analysis

##### The Contractor shall maintain a Risk Management Plan throughout the implementation period. Bidders shall submit an outline of their policy and methodology for risk identification, assessment and abatement for all activities to be executed under this project, this shall encompass all phases of the project including the PBU period. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Contractor shall maintain throughout the execution of the contract a risk register which identifies risks and opportunities, estimated level of risk and the consequences and risk reduction strategies associated with: (D)

###### program objectives;

###### technology involved;

###### system performance; and

###### program schedules.

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Contractor shall provide a Risk Report to each Progress Review Meeting to indicate the status and action associated with identified risk items. The format of the Risk Report shall be mutually agreed. (D)

|  |  |
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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Technical Reviews and Meetings

##### The technical reviews and meetings shall consist of at least the following:

###### System Requirements Review. (D)

|  |  |
| --- | --- |
| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

###### Preliminary Design Review. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

###### Critical Design Review. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The above requirements are representative requirements and Bidders may offer alternative plans, which must list and describe the Technical Reviews and Meetings they would propose for this project. (I)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Contractor shall be required to provide appropriate and adequate documentation in support of these reviews at least 1 month in advance. Bidders shall include in their Bid a description of the level and extent of documentation to be provided at the Technical Reviews and Meetings. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

# ENVIRONMENTAL MANAGEMENT PROGRAMME

##### The Contractor shall develop an Environmental Management Programme (EMPr) based on identified activities which may have potential or actual environmental impacts before the commencement of work in accordance to the National Environmental Management Act (No. 107 of 1998) and associated environmental legislation as well as ATNS’ environmental specifications (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Bidder shall provide a Draft Environmental Management Programme (EMPr) specific to the project scope, as defined in the Request for Bid. (D) The environmental management programme shall address, without limitations, the following: (D)

1. Energy efficiency pertaining to all aspects of the project;
2. The use of Environmentally sustainable materials and products;
3. Biodiversity management i.e. soil erosion, clearance of vegetation, rehabilitation of the site, all flora and fauna protection;
4. Waste management;
5. Water management;
6. Air quality management i.e. dust suppression; and
7. Visual and aural impacts.

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Bidder shall provide a suitable qualified environmental officer or service provider to render the services required as per EMPr activities associated with this project. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

# QUALITY ASSURANCE

## Quality Assurance Programs

##### The Bidders shall demonstrate the existence of a formal quality management system that is fully documented, implemented maintained and complies with the ISO 9001 standard. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Bidder shall include with the offer, proof of certification by an accredited ISO body, or objective evidence of documented QMS that is not certified but complies with ISO9001 (i.e. details of quality assurance procedures, work instruction, methods etc.). (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### Bidders must indicate the QA measures and standards that were used for the development of the systems offered and those that are applicable for the successful delivery of Project. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Quality Assurance Audits

##### Audit reports in respect of the project as prepared by the Contractor as part of his internal QA procedures, and details of any corrective action reports and corrective action taken, shall be submitted to the Company. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The Company reserves the right to perform any inspections, tests or audits at the Bidder’s or major sub-contractor’s premises at any time when such tests are deemed necessary to ensure Supplies and Services conform to specified requirements. Such inspections may also be conducted by the Company during the shortlisting phase of this Bidder. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Responsibility for Quality Assurance

##### The Contractor shall be responsible for ensuring that the quality of equipment and software supplied in accordance with the terms of the Contract, and any installation activity performed, fully conforms to the prescribed requirements. ATNS will undertake a monitoring and audit role in relation to the Contractors Quality Management Plan and program to determine whether equipment, software or installation deliverables meet the contractual requirements. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## Contract Data Requirements List

##### A copy of the ATNS standard CDRL is provided below for information purposes. Bidders shall submit a proposed Contract Data Requirements List (CDRL) which incorporates all data requirements stated in this RFT, together with a delivery schedule. (D).

|  |
| --- |
| **Project Management Requirements** |
| **Contract Data Requirements List** |
| **Document** | **Section** | **Delivery Timeframe** |
| **Administration and Coordination** |  |  |
| General Correspondence |  |  |
| Project Review Meeting Minutes |  |  |
| Project Review Meeting Agenda |  |  |
| Project Status Reports |  |  |
| Risk Report |  |  |
| Quality Assurance Audit Report |  |  |
| **Systems Engineering Definition** |  |  |
| Project Management Plan |  |  |
| Activity List |  |  |
| Resource Allocation Plan |  |  |
| Work Breakdown Structure |  |  |
| Risk Management Plan |  |  |
| Hardware development Plan |  |  |
| Software Development Plan |  |  |
| Systems Engineering Management Plan |  |  |
| Installation Management Plan |  |  |
| Quality Plan |  |  |
| System Design Document |  |  |
| **Testing & Commissioning** |  |  |
| Installation Transition & Commissioning Plan |  |  |
| Test & Evaluation Master Plan |  |  |
| Acceptance Test Procedures |  |  |
| Acceptance Certificates |  |  |
| Quality Report |  |  |
| Safety Case |  |  |
| **Site** |  |  |
| Shelter Specifications |  |  |
| Site Earth |  |  |
| Miscellaneous Specifications |  |  |
| Site Survey Reports |  |  |
| Equipment Installation Drawings |  |  |
| Environmental Impact Issues |  |  |
| Occupational Health & Safety Plan |  |  |
| Site Handover |  |  |
| Civil & Electrical Works |  |  |
| **Project Schedule** |  |  |
| Master Project Schedule |  |  |
| Schedule Review Reports |  |  |
| **Finance** |  |  |
| Payment Schedule |  |  |
| Invoices |  |  |
| Orders |  |  |
| Variation Orders |  |  |
| Request for Change |  |  |
| **Logistics** |  |  |
| Integrate Logistics Support Plan |  |  |
| Configuration Management Plan |  |  |
| System Technical & Operator Handbook |  |  |
| As-Built Documents |  |  |
| PBU Reference Guide |  |  |
| Logistics Support Analysis Plan |  |  |
| Logistics Support Analysis Report |  |  |
| Life Cycle Costing Programme Plan |  |  |
| Maintenance Plan |  |  |
| Software Support Plan |  |  |
| Maintenance Contract (HW & SW) |  |  |
| **Period of Beneficial Use** |  |  |
| PBU Logistic Correspondence |  |  |
| PBU Agenda & Minutes |  |  |
| PBU Reports ATNS |  |  |
| PBU Reports Contractor |  |  |
| Failure Reports |  |  |
| PCR's |  |  |
| RAM Statistics |  |  |

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### Bidders shall also identify any additional data or documentation that they consider shall be included in the CDRL, together with a description of the item and the reason for inclusion, for the purpose of operating and maintaining the System. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### The CDRL shall identify the status of the CDRL item, i.e. draft, final. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### All CDRL items shall be delivered to the Company in draft format for Company concurrence prior to final delivery. The Contractor shall be responsible for timely delivery of all CDRL items consistent with the overall project schedule. (D)

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| **COMPLIANCE (C/PC/NC/NOTED)** |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

**--- END OF VOLUME 3 ---**