

# **AIR TRAFFIC AND NAVIGATION SERVICES CO. LTD**

## **REPUBLIC OF SOUTH AFRICA**



**REQUEST FOR PROPOSALS: ATNS/RFP01/06/2026/27/TIME\_SYNC\_Dis\_2017\_234**

**THE APPOINTMENT OF A SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, MAINTENANCE, AND SUPPORT OF GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) NETWORK TIME PROTOCOL (NTP) TIME CLOCK SYNCHRONISATION SYSTEMS WITH A SYSTEM LIFECYCLE OF FIFTEEN (15)-YEARS.**

**VOLUME 4**

**LOGISTIC SUPPORT REQUIREMENTS**

**JUNE 2026**

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.

**REVISION INDEX SHEET**

<b>Version</b>	<b>Revision</b>	<b>Date</b>	<b>Reason for Change</b>	<b>Pages Affected</b>
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**ABBREVIATIONS**

ATM	Air Traffic Management
ATNS	Air Traffic and Navigation Services
ILS	Integrated Logistics Support
LRU	Line Replacement Unit
MTBF	Mean Time Before Failure
MTTR	Mean Time To Recovery
PBU	Period of Beneficial Use
SAT	Site Acceptance Test
SLA	Service Level Agreement

## GLOSSARY

**Table 1: Glossary**

Collective Word/s	Meaning
<b>Availability</b>	The measure of a hardware or software system, subsystem or equipment operational time represented by a ratio of total actual functional time over the total time it is required or expected to function. The availability will be measured and expressed as a percentage.
<b>MTBF</b>	A measure of the reliability, of repairable hardware or software system, subsystem or equipment items, represented by the number of functional life units measured in hours, during which all hardware or software system, subsystem or equipment perform within their specified limits in a given period of time.
<b>MTTR</b>	A measure of the maintainability, of repairable hardware or software system, subsystem or equipment items, represented by the average (mean) time measured in hours to repair or restore a failed component of a hardware or software system, subsystem or equipment.
<b>Reliability</b>	It is the ability of a hardware or software system, subsystem or equipment to consistently perform according to its specifications over a specified period of time. Reliability is determined by the measure of how often an item fails in a given period of time expressed in terms of (MTBF).
<b>PBU</b>	PBU is the equivalent of a guarantee and warranty period where support validation takes place. During this period, the system is maintained as per the proposed maintenance contract, under the responsibility of the supplier and where there will be concurrent running of both the warranty and the system operation verification.
<b>Obsolete</b>	Refers to equipment already at End-of-Sale and/or End-of-Life at the time of contracting of the Time Synchronisation System and shall not reach End-of-Sale and/or End-of-Life within five years after contracting.

## 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 **Mandatory**, **Desirable**, **Optional** or for **Information** 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. Bidders 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”**.

Bidders 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)

Bidders shall, for paragraphs declared “PC” or “NC”, include a statement as to the nature of the variation and may supply additional supporting information in the space provided to demonstrate how the proposal may still meet the needs of ATNS.

**Paragraphs marked “(M)”**, indicates that the requirement is mandatory and proposals that do not comply 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, provide a 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.

## 2 MAINTENANCE SUPPORT CONCEPT

[A] The system shall be maintained in accordance with the current ATNS maintenance concept, which is based on the O-, I-, and D-level maintenance structure. Under this concept, ATNS shall perform all O- and I-level maintenance activities. The Supplier shall be responsible for all D-level maintenance activities, as well as for providing additional support to O- and I-level maintenance when required by ATNS. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

## 3 SYSTEM PERFORMANCE

[A] The total system (including all interfaces) availability shall be 99.95% (4.4 minutes downtime), per site, per year, on a 24 hour, 7 days per week basis, over the full system lifespan. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

[B] The system restart time shall be less than 5 minutes. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

[C] The System Reliability, per site, over 24 hours will be 99.91%. This is equivalent to 2 total system failures per site, per year. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	

*[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]*

#### 4 DOCUMENTATION

[A] The following documentation shall be provided:

[a] Operator Manuals/Documents. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

[b] All relevant Technical and/or Maintenance documentation. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

[c] As-Built Document. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

#### 5 TRAINING

The following training shall be provided.

##### 5.1 Technical Training

[A] The Contractor shall provide the following hardware and software training, to ATNS Technical personnel, at each maintenance centre: (D)

- [a] Theoretical
- [b] Practical
- [c] Configuration

[d] Installation (On-The-Job training)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

## 6 SPARES

[A] To achieve the required system performance, the Contractor shall recommend the required system spares for Line Replacement Units (LRUs), to support the system for its entire lifespan and clearly indicating the failure rate per LRU. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

[B] The system shall be supplied and delivered with a set of consumable items that will cover the first two years of operation. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

## 7 SPECIALIZED TOOLS AND TEST EQUIPMENT

[A] Where relevant, the bidder shall propose the specialized test tools needed to maintain the equipment. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

## 8 PERIOD OF BENEFICIAL USE (PBU)

- [A] A PBU will be conducted to validate system performance, assess the proposed spares, evaluate the quality of training provided, and confirm that the documentation is sufficient to support maintenance activities. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

- [B] The PBU shall start from the Site Acceptance Test (SAT) of the first installed site and will end one year after the SAT of the last site. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

- [C] The warranty period and the PBU shall run concurrently. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

- [D] The PBU shall cater for all repairs and replacements of the system hardware, as well as all repairs/corrections or modifications to software of the complete system. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
<i>[INSERT FULL RESPONSE FOR EVALUATION HERE]</i>	
<i>[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]</i>	

## 9 MAINTENANCE SUPPORT CONTRACT

### **SUPPORT CONTRACT PROPOSAL:**

- [A] The Bidder shall submit a life-cycle Maintenance and Support Contract proposal in alignment with the ATNS Support Concept. This Maintenance and Support Contract will form one of the schedules to the Procurement Contract and will be signed concurrently with it. This contract shall commence upon completion of the PBU. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

- [B] **SUPPORT CONTRACT PRICES:** Detailed prices of the Maintenance and Support contract proposal shall be provided in Volume 1C. The rest of the Support Contract aspects, excluding pricing, shall be provided on Volume 4. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

- [C] **SERVICE & LABOUR RATES:** The Contract shall indicate all labour and service rates, for both local and overseas technical personnel, for normal working hours, weekends and public holidays. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

- [D] **PRICE ESCALATION FORMULA:** The formulae used to determine the cost of all services shall be clearly indicated. The price escalation formula(e) shall clearly indicate all the related variables/elements. The price escalation formula shall be predetermined and applied for the system life cycle. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

[E] **SYSTEM PERFORMANCE GUARANTEED:** The Bidder shall propose a Support Contract that will guarantee that the specified System Performance Requirements, as mentioned in paragraph 3 (System Performance) are achieved, for the complete system life cycle. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

[F] **RESPONSE TIME:**

Table 1: Restoration times.

Type of failure	Response/acknowledgment time	Restoration time
<b>Critical</b>	20 min	1 hour
<b>Major</b>	1 hour	3 hours
<b>Minor</b>	4 hours	2 days

The Contractor shall adhere to the response and restoration times specified in Table 1 above. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

[G] **SOFTWARE & HARDWARE SUPPORT:** The Support shall cover the Software, firmware and Hardware failure corrections. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
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[INSERT FULL RESPONSE FOR EVALUATION HERE]
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]

[H] There shall be no equipment supplied that is already at End-of-Sale and/or End-of-Life at the time of contracting of the Time Synchronisation System and shall not reach End-of-Sale and/or End-of-Life within five years after contracting. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

[I] During the systems' lifecycle, where any hardware item is identified to become obsolete within the following six (6) months, the vendor shall on a regular basis supply ATNS with a list of suitable replacement items which shall include all required and necessary drivers to load, all configurations that need to be changed, latest firmware to be loaded, necessary software version upgrades required, the model names and numbers of devices and components, the interfacing and protocol changes required, what procedures to follow, literally all aspects and requirements related to the replacement item in order to maintain/restore continuous system and equipment normal and full operations successfully and effectively. Any computer hardware replacements, induced by these upgrades, will be catered for by the maintenance agreement. The Bidder shall indicate compliance to this requirement. (D)

<b>COMPLIANCE (C/PC/NC)</b>	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

[J] **FAILURE CORRECTION REPORT**: The Support shall provide ATNS with a detailed failure correction report within 48 hours of each fault correction. (D)

<b>COMPLIANCE (C/PC/NC/NOTED)</b>	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	

[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]

[K] **LRU EXPENSES:** The maintenance and support contract shall include the cost of LRU repairs for the duration of the life cycle. (D)

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

[L] **TURN AROUND TIME (TAT):** The Support shall return the LRUs/equipment to ATNS within 45 business days of receipt. (D)

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

[M] **PENALTIES:** Should the Contractor breach the LRU REPAIR TAT (Point K above), ATNS shall impose penalties.

In the event that each LRU Repair TAT exceeds 45 working days, the total number of days for the breach (for all LRUs in breach), over a measurement period of three (3) months, the service provider shall pay a penalty as follows:

Quarterly Service Penalty = Tact [hours]/ Tmax [hours] \* (Priority factor) \* (10%\* Annual Contract value), up to a total maximum of the annual value of the Agreement, per Agreement period, where:

The Priority Factor for LRU Repair TAT [days] shall be 0.5

The Priority Factor for the Critical failure restoration time 0.5

The Priority Factor for the Major failure restoration time 0.2

Tmax [hours] = corresponding maximum required times as stated in paragraph 9F and 9L of this document: TAT(45 business days) and restoration times as indicated in table 1 of paragraph 9F

Tact ([hours] = Actual Downtime or actual LRU TAT.

(Tact) will only be affected if it was a direct result of the equipment failing within the equipment’s specifications, this excludes failures due to external causes.

Note: The penalty only applies to where the service levels (**LRU Repair TAT and fault restoration**) have been transgressed. (D)

<b>COMPLIANCE (C/PC/NC/Noted)</b>	
Responding with C/PC/NC only without proof will not be accepted.	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

[N] **HELPDESK SERVICES:** The Support shall provide, during working hours, Help Desk services to address technical assistance requests. (D)

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

[O] **RESOURCE PROVISION:** The Support shall make available, within 72 hours after ATNS request, a Technical resource to the site. (D)

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

[P] **MID-LIFE UPGRADE OF COTS COMPUTER/IT HARDWARE:** To enable efficient IT hardware functionality over a period of 15 years, the Bidder's Maintenance & Support proposal shall include the COTS IT hardware Mid-life upgrade. This upgrade shall comprehensively cover all associated activities and corresponding costs, including planning, acquisition, supply, delivery, decommissioning of the existing hardware, installation of the new hardware and integration of existing software, configuration, testing, transition, and commissioning of the upgraded equipment. The Mid-life upgrade shall only happen after the written approval from ATNS. The Bidder is required to provide an accurate cost that is future valued for the relevant year of support. (D)

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