

AIR TRAFFIC AND NAVIGATION SERVICES CO. LTD

REPUBLIC OF SOUTH AFRICA



REQUEST FOR PROPOSAL

ATNS/TPG/RFP008/2025/2026/RADAR REPLACEMENT

RADAR REPLACEMENT PROGRAMME

VOLUME 2

CHAPTER 4: INTEGRATION WITH ATNS SYSTEMS

Version 4.0

JULY 2025

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TABLE OF CONTENTS

ABBREVIATIONS..... 3

1 INSTRUCTIONS TO BIDDERS 7

2 INTRODUCTION..... 8

2.1 GENERAL 8

2.2 SCOPE..... 8

3 REQUIREMENTS 8

3.1 RADAR EQUIPMENT, ANTENNA AND RADOME INTEGRATION..... 8

3.2 ELECTRICAL INTEGRATION 9

3.3 DATA COMMUNICATIONS INTERFACE..... 9

3.4 LIGHTNING AND SURGE PROTECTION 10

3.5 DATA PROTOCOL INTEGRITY 10

3.6 IT REQUIREMENTS 11

3.7 SECURITY MANAGEMENT 16

3.7.1 General 16

ABBREVIATIONS

AC	Alternating Current
ACP	Azimuth Count Pulse
ADS-B	Automatic Dependent Surveillance–Broadcast
ANS	Air Navigation Services
ANSP	Air Navigation Services Provider
APG	Azimuth Pulse Generator
ASR	Airport Surveillance Radar
ATA	Aviation Training Academy
ATC	Air Traffic Controller
ATM	Air Traffic Management
ATNS	Air Traffic and Navigation Services SOC Ltd
ATS	Air Traffic Services
BITE	Built-In Test Equipment
BMS	Battery Management System
CCTV	Closed-Circuit Television
CFAR	Constant False Alarm Regulation
CMS	Centralised Monitoring System
COC	Certificate Of Compliance
COTS	Commercially Off The Shelf
CTM	Central Technical Monitor
DC	Direct Current
FABL	Bram Fischer International Airport
FAEL	King Phalo Airport
FAGG	George Airport
FALE	King Shaka International Airport
FAPE	Chief Dawid Stuurman International Airport
FAKN	Kruger Mpumalanga International Airport
GUI	Graphic User Interface
HDMI	High-Definition Media Interface
HMI	Human Machine Interface

ICAO	International Civil Aviation Organisation
ICD	Interface Control Document
IISLS	Improved Interrogation Side Lobe Suppression
IP	Internet Protocol
I/R	Interrogator/Receiver
IRF	Interrogation Repetition Frequency
IT	Total System Improvement Factor
ITU	International Telecommunications Union
LAN	Local Area Network
LCMS	Local Control and Monitoring System
LED	Light Emitting Diode
LRU	Line Replacement Unit
LSB	Least Significant Bit
LTM	Local Technical Monitor
LVA	Large Vertical Aperture
MDS	Minimum Detectable Signal
MIB	Management Information Base
MIOS	Minimum Interoperability Standard
MISS	Minimum Information Security Standards
MSSR	Monopulse Secondary Surveillance Radar
MTAC	Multiple Time Around Clutter
MTAT	Multiple Time Around Targets
MTBF	Mean Time Before Failure
MTD	Moving Target Detection
NF	Noise Figure
NM	Nautical Mile
NVR	Network Video Recorder
NWS	National Weather Standards
OBA	Off Boresight Angle
OEM	Original Equipment Manufacturer
OHAS	Occupational Health and Safety
ONVIF	Open Network Video Interface Forum
PBU	Period of Beneficial Use

Pd	Probability of Detection.
Pfa	Probability Factor
PoE	Power over Ethernet
PRI	Pulse Repetition Interval
PRF	Pulse Repetition Frequency
PSR	Primary Surveillance Radar
RAG	Range-Azimuth Gate
RCMS	Remote Control and Monitoring System
RCS	Radar Cross Sections
RF	Radio Frequency
RFM	Radar Field Monitor
RHD	Radar Horizon Distance
RMD	Radar Maintenance Display
RPM	Radar Performance Monitor
RSLs	Receiver Side Lobe Suppression
SAT	Site Acceptance Test
SCV	Sub Clutter Visibility
SDFC	Surveillance Data Filter & Combiner
SGC	Swept Gain Control
SHE	Safety Health and Environment
SITA	State Information Technology Agency
SLA	Service Level Agreement
SLS	Side Lobe Suppression
SNMP	Simple Network Management Protocol
SPI	Special Pulse Indication
SSR	Secondary Surveillance Radar
STC	Sensitivity Time Control
STM	Specialized Technical Monitor
TCP/IP	Transmission Control Protocol/Internet Protocol
TMA	Terminal Manoeuvring Area
UAP	User Application Profile
UPS	Uninterrupted Power Supply
VSWR	Voltage Standing Wave Ratio

WDR

Wide Dynamic Range

1 INSTRUCTIONS TO BIDDERS

The Bidder shall submit all responses, diagrams, 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, based on the paragraph classification, in the response block provided opposite the column labelled “Compliance”. Bids will be evaluated 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 additionally 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 Bidders 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 INTRODUCTION

2.1 GENERAL

This specification establishes the integration requirements and philosophy required for successful completion of the project.

The Integration of the radars as requested will, after commissioning and flight tests, be required to integrate seamlessly into the current ATNS ATM display and management system. This integration is also required for all ancillary and support equipment.

2.2 SCOPE

This chapter will focus on specific areas that are identified as crucial and necessary for the successful completion and utilisation of equipment.

The item activities that will be covered include, but are not limited to:

- a) All ancillary and support equipment at each radar site.
- b) Data and communication interfaces required for distributing information and controlling signals to and from the radar site. This will normally be from the operational centre or the facility from where the technical support will be provided.
- c) Mechanical and electrical integration of equipment into or onto third party facilities.
- d) Radar data interfacing with the current ATNS Air Traffic Management (ATM) Display system.

3 REQUIREMENTS

The role of the Bidder together with each Contractor/Subcontractor and how they will interact, as well as share or carry responsibility will be detailed in the following paragraphs.

3.1 RADAR EQUIPMENT, ANTENNA AND RADOME INTEGRATION

[A] The Bidder shall provide all information regarding the requirements of the antenna and equipment as would be required for mounting and installation in the buildings, towers, container and mast. This will include at least the following: (D)

- [a] Antenna pedestal position relative to tower
- [b] Obstruction free areas [including clearance from a radome]
- [c] Minimum and maximum heights

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

- [B] This requirement is mentioned specifically because of the site preparation for the different radars. The site preparation at each site will be such that the Contractor will only be required to install and commission the equipment. It is therefore imperative that the Bidder ensures the integrity and correctness of information transferred to the manufacturers and civil works contractors. All of the information will be done officially with approval by the project managers.
- (D)

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

3.2 ELECTRICAL INTEGRATION

- [A] All electrical integration that can have a direct effect on the performance and quality of service provided by the Contractor's equipment will be verified by the Contractor before activation of equipment. This verification will be done by means of visual inspections, documentary certificates and other means mutually agreed upon. This is to be presented before Site Acceptance Test (SAT) commences. The Bidder shall indicate compliance to this requirement.
- (D)

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

3.3 DATA COMMUNICATIONS INTERFACE

- [A] Data communication interface shall be the following:
- [a] Radar data to operational centre, both channels. The Bidder shall indicate compliance to this requirement. (D)

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

- [b] RCMS data to operational centre. The Bidder may propose with motivation the use of only one channel. The Bidder shall indicate compliance to this requirement. (D)

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

[B] RCMS interface shall make use of TCP/IP protocol. The Bidder shall indicate compliance to this requirement. (D)

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

[C] The Bidder shall specify in detail the data communication protocol and specifications (including minimum link bandwidth requirements, etc.) and preference will be given to the proposal that allows for future upgradeability of the interfaces. (D)

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

3.4 LIGHTNING AND SURGE PROTECTION

[A] All surge and Class 1 & 2 lightning protection requirements shall be specified in detail and the Bidder shall provide the preferred installation practices and or references. (D)

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

3.5 DATA PROTOCOL INTEGRITY

[A] The integration of radar data into ATNS's ATM systems will be the responsibility of the Contractor. It is a requirement to prove timeously that the data is relevant and correct and in accordance with the ASTERIX protocol. The Bidder shall include a proposal on how this verification will be done. (D)

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

- [B] All electrical specifications from the SDFC (Surveillance Data Filter and Combiner) shall also be verified beforehand in order to establish requirements as mentioned in paragraph 3.3. The Bidder shall indicate compliance to this requirement. (D)

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

- [C] The Bidder shall describe and motivate in detail the requirements for the type of interface as well as the requirements for the external and or internal clock used in synchronous and or asynchronous communications. (D)

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

- [D] Where applicable, all systems provided shall comply to the latest Minimum Interoperability Standards (MIOS) and Minimum Information Security Standards (MISS) for Government Information Systems as developed by the State Information Technology Agency (SITA). The Bidder shall indicate compliance to this requirement. (D)

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

3.6 IT REQUIREMENTS

- [A] The Radar and RCMS System design shall incorporate the principle of least functionality by identifying any unused/ unnecessary operating system and OS functionality, including protocols, ports, and services that could potentially be disabled or uninstalled in order to meet the ATNS Cyber Security Policy requirements. The disabling or uninstallation shall only be done in consultation with ATNS. The Bidder shall provide full details to support compliance to the requirement. (D)

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

[B] The following principles shall be incorporated on the Radar and RCMS System:

- [a] The Radar and RCMS System shall utilise Secure Services and ports, including, DNS over port 53. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [b] The Radar and RCMS System shall implement Secure Network protocols; including, NetBIOS, IPv6 and network interfaces; including, Bluetooth, IEEE 802.11, and infrared. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [c] The Radar and RCMS System shall implement secure methods of remote access via SSL, SFTP, SCP, VPN, SSH, and IPSEC. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [d] The Radar and RCMS System shall implement access control to control permissions to files, directories, registry keys, and restricting user activities such as modifying system logs or installing applications. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [e] The Radar and RCMS System shall implement Secure Management of identifiers/accounts; including, changing default account names, determining length of time until inactive accounts are disabled, using unique usernames, establishing user groups. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [f] The Radar and RCMS System shall implement Secure Authentication controls: including, password length, use of special characters, minimum password age, multifactor authentication/use of tokens. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [g] The Radar and RCMS System shall implement Secure Audit settings; including, capturing key events such as failures, logons, permission changes, unsuccessful file access, creation of users and objects, deletion and modification of system files, registry key and kernel changes. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [h] The Radar and RCMS System shall implement Secure System settings; including, session timeouts, number of remote connections, session lock. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [i] The Radar and RCMS System shall use Cryptography - use only FIPS 140-3 validated cryptographic protocols and algorithms to protect data in transit and in storage. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [j] The Radar and RCMS System shall allow for vendor-released patches in response to identified vulnerabilities, including, software updates to be installed. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [k] The Radar and RCMS System shall use approved, signed software, if supported. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [l] The Radar and RCMS System shall implement safeguards through software to protect end-user machines against attack, including, antivirus, antispyware, anti-adware, personal firewalls, host-based intrusion detection systems. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [m] The Radar and RCMS System shall apply network protections, including, TLS, IPSEC. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [n] The network installation security requirements; for example, within a DMZ, on a specific subnet, as required, shall be defined for the Radar and RCMS System. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [o] The technical specification and design documentation, system security documentation, system procedures, etc. shall be maintained and updated throughout the life of the RADAR AND RCMS System. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [p] Data loss prevention requirements shall be defined for the Radar and RCMS System, i.e. Classify the data traversed across the LAN as Public or Private. This will allow ATNS Security to ensure that Private information is not shared outside the network. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [q] The Radar and RCMS System design shall cater for and ensure that, the installation is behind the firewall and Intrusion prevention systems. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [r] If access from mobile devices are catered for, the Radar and RCMS System shall incorporate mobile device security. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [s] The Radar and RCMS System design shall ensure that remote access to the application is only accessible via the VPN. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [t] The Radar and RCMS System design shall ensure that all applications are only accessible publicly via the firewall. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [u] The Radar and RCMS System shall implement access rights to enable role-based access control at application and device level. The Bidder shall provide full details to support compliance to the requirement. (D)

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

3.7 SECURITY MANAGEMENT

3.7.1 General

- [A] Over and above the relevant generic IT security requirements as stipulated in section 3.6, the Radar and RCMS Systems shall implement security management, including authentication, authorisation, and access control for users. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [B] Any relevant System-Components connecting with ATNS external systems and with the outside world shall be secured through firewalls, data encryptions, access and allowed/permissions lists, as well as other industry security measures to prevent unauthorised access and data mining. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [C] The Radar and RCMS System shall enable users/operators to only access the system via a log-in procedure protected by a password. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [D] The Radar and RCMS System shall allow for user access and permissions groups to be created to allow for a set of system functions and associated user access to be allocated per user group. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [E] There shall be no restriction/limit on the number of user accounts and groups that can be created. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [F] The Radar and RCMS System shall allow users to be assigned to a specific or more than one user group. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [G] The Radar and RCMS System shall not limit the number of users allowed to be logged in simultaneously to a particular and relevant functional aspect of the system. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [H] The Radar and RCMS System shall monitor and record in a Dynamic Database and on a real time basis all users and operators accessing or attempting to access the system. Failed attempts shall be included. All entries into the database shall be date and time stamped. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [I] The Radar and RCMS System shall ensure that every data package sent to a disaster recovery system over the network shall be encrypted. The Bidder shall provide full details to support compliance to the requirement. (D)

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

- [J] The Radar and RCMS System shall present the user with a login window for entering a username and password after a workstation boot-up. The Bidder shall provide full details to support compliance to the requirement. (D)

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