



ANNEXURE A : SCOPE OF WORK

1. EXTENT OF WORK

APPOINTMENT OF A SERVICE PROVIDER FOR AIRCONDITIONER MAINTENANCE SERVICES FOR ATNS OR TAMBO INTERNATIONAL AIRPORT FOR A PERIOD OF 5 YEARS.

1.1. OBJECTIVES

Air Conditioning System Maintenance Service bid is aimed at assisting ATNS accomplish its risk management objectives by insuring the effectiveness of its Air Conditioning service within ATNS OR Tambo international airport site.

1.2. SCOPE OF WORK

1.2.1. Service providers are herewith invited to submit proposal for the maintenance services of existing split and cassettes Air Conditioning Units at ATNS OR Tambo local/remote sites.

1.2.2. Successful bidder to deploy one Air Conditioner Technician: Qualified with Air conditioning, refrigeration and ventilation - NQF level 4 or above, with 5 Years' experience after trade test). Registration with SAQCC and Authorized Refrigeration Gas Practitioner by Department of Labour on site at ATNS FAOR Monday to Friday and one apprentice assistant from 07:30am to 16:00pm.

1.2.3. Bidders shall provide pricing rates over five (5) years on the attached **Pricing Schedule spreadsheet** and submit in mass devise with the bid documents. The same costing should also be populated on the table on Annexure D.

1.3. THE PROPOSALS SHOULD BE FOR THE FOLLOWING:

1.3.1. Maintenance of the existing **split and cassettes Air Conditioning Units** Monthly or as agreed upon with O. R. Tambo management. See **Annexure B** for technical specifications and more details of the sites to be maintained, **Annexure C** for General Specifications and **Annexure D** for schedule maintenance Costing.

1.3.2. Provide maintenance services on existing/new **split and cassette Air Conditioning Units** as and when required.

1.3.3. If uneconomical to maintain or to repair; Supply new **split and cassettes Air Conditioning Units** for failed units on critical equipment and buildings.

1.3.4. Refilling of refrigerant gas on **Air Conditioning units** as required.



- 1.3.5. Provide **split and cassettes Air Conditioning Units** repairs and replacement on a callout basis.
- 1.3.6. Recommend on required repairs after maintenance/inspections.
- 1.3.7. Inspecting of **split and cassettes Air Conditioning Units** on request.
- 1.3.8. Ducting alterations to suit new unit.
- 1.3.9. Conduct all necessary Electrical installation and provide certificate of compliance (COC) when necessary.
- 1.3.10. Commissioning of the new **Air Conditioning** system and provide site acceptance test documents.
- 1.3.11. Top up gas and oil should be included in monthly servicing cost.
- 1.3.12. Develop and submit safety file
- 1.3.13. Provide a 12 Month maintenance and guarantee on all new installations.



1. SPECIFICATIONS

- 1.1. The units and installations shall comply with "Safety Code for Mechanical Refrigeration", ASA-B9.1.
- 1.2. The units shall comply with the Occupational Health and Safety Act of 1993, as amended, and with local authorities' by-laws.
- 1.3. Special care shall be taken in transport, delivery, storage on site and installation to ensure that the unit is installed and maintained in "as new" condition at start-up of the installation.
- 1.4. Sufficient space shall be provided for installation and service of the unit in accordance with manufacturer's instructions.
- 1.5. The refrigerant shall be environment friendly, non-toxic, non-flammable and odorless.
- 1.6. All electrical wiring shall be brought to relevant DB board and correctly labelled.
- 1.7. For new installation, the supplier must bring its own electrician, and electrical Certificate of compliance must be issued.
- 1.8. Maintenance of variety of air conditioning system (split and cassettes units), this may include, but not limited to the following list:

AIR CONDITIONER BRAND	DUNHUM-BUSH	SUMSUNG	LG	YORK	PANASONIC	DAIKIN	JET-AIR
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COOLING CAPACITY (BTU)	10 000	10 000	10 000	10 000	10 000	10 000	10 000
	12 000	12 000	12 000	12 000	12 000	12 000	12 000
	16 000	16 000	16 000	16 000	16 000	16 000	16 000
	18 000	18 000	18 000	18 000	18 000	18 000	18 000
	24 000	24 000	24 000	24 000	24 000	24 000	24 000
	30 000	30 000	30 000	30 000	30 000	30 000	30 000
	36 000	36 000	36 000	36 000	36 000	36 000	36 000
	42 000	42 000	42 000	42 000	42 000	42 000	42 000
	48 000	48 000	48 000	48 000	48 000	48 000	48 000
	54 000	54 000	54 000	54 000	54 000	54 000	54 000
60 000	60 000	60 000	60 000	60 000	60 000	60 000	

Table B-1: Split And cassettes Units Cooling Capacity (BTU)



- 1.9. Should new requirements for installation of new air conditioner arises, the service provider shall submit in writing a quotation for the new requirement.
- 1.10. The unit shall have capacity control to vary its capacity in response to varying load conditions.
- 1.11. Submit checklist for step-by-step simulation of abnormal conditions (Excessive heat), which will be checked as part of the testing, balancing and commissioning.

2. MAINTENANCE TASK LIST

This is supplied as an indicative minimum maintenance task list. The contractor will be expected to compile a comprehensive task list which is Brand specific based on the OEM recommendation and Contractor's expertise; this is to be approved by ATNS OR Tambo Management.

2.1. Servicing is to include (But not limited to):

2.1.1. AC and Package Units

- a) Servicing, checking and testing change-over relay units for correct settings
- b) Supply of all chemicals, tools and OHAS equipment required by staff.
- c) Inspect and clean filter media on return (fresh air).
- d) Check for correct functioning of control switches.
- e) Check if all electronic connections are secured.
- f) Clean and drainpipe.
- g) Inspect for any gas / oil leaks.
- h) Inspect belt's tension and belt drives.
- i) Wash condenser and clean fan.
- j) Wash evaporator coils.
- k) Inspect mountings of components.
- l) Check and secure all covers.
- m) Remove rust and treat with rust resistant paint.
- n) Apply corrosion resistance inside and outside of the units.
- o) Wipe down panel / control box covers.
- p) Rust proof fan motor shaft and bearings.
- q) Check fan bearing and lubricate.
- r) Test and commission system.
- s) Remove wash and clean drip tray.
- t) Blow drainage system clean.
- u) Check for loose wiring and tighten.
- v) Check operation of fan motor and blades.
- w) Check for undue noise indoor and outdoor.



- x) Note running amps and set overload.
- y) Check the system for correct refrigerant charge.
- z) Note any defects and recommend on how critical it is.

2.1.2. Extractor Fans

- a) Check condition of fans.
- b) Check wiring and controls.
- c) Check bearings.
- d) Check for noise and vibration.
- e) Generally clean equipment.

3. SITES LOCATION

The sites are located in different locations and different provinces in the country. See details on the table below.

3.1. Local Sites

The distance to site as listed below is measured from OR TAMBO Control centre

SITES	PROVINCE	DISTANCE (KM)
OR TAMBO CENTRE OFFICES	GAUTENG	0
SSS OFFICES	GAUTENG	0
VHF RECEIVER STATION	GAUTENG	0
VHF TRANSMITTER STATION	GAUTENG	0
FAOR JS VOR/DME	GAUTENG	0
ILS JS 03L	GAUTENG	0
ILS JS 03R	GAUTENG	0
ILS JS 21L	GAUTENG	0
ILS JS 21R	GAUTENG	0
RADAR JS-S BAND 1	GAUTENG	0
HF - BABSFONTEIN	GAUTENG	28
HF - ISANDO	GAUTENG	13
HF - DELMAS	GAUTENG	38
RADAR JS-S BAND 2	GAUTENG	10

Table B-2: Local Sites

3.2. Remote Sites

The distance to site as listed below is measured from OR TAMBO Control centre

VHF ELLISRUS	LIMPOPO	350
VHF GROOTHOEK	LIMPOPO	250
VHF HARTBEESFONTEIN	NORTHWEST	250



VHF JERICHO	MPUMALANGA	250
VHF KAAPSEHOOP	MPUMALANGA	350
VHF LEEUKOP	FREE STATE	220
VHF LOUIS TRICHARDT	LIMPOPO	430
VHF MAFIKENG FRS	NORTHWEST	340
VHF MAUCHSBERG	MPUMALANGA	300
VHF PHALABORWA	LIMPOPO	450
VHF POTGIETERSRUST	LIMPOPO	280
VHF RENOSTERKOP	FREE STATE	250
VHF VRYBERG	NORTHWEST	450
VHF WAKKERSTROOM	MPUMALANGA	350

VOR SITES	PROVINCE	DISTANCE (KM)
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VOR WONDERBOOM	GAUTENG	66
VOR GRASMERE	GAUTENG	120
VOR GREESFWALDT	LIMPOPO	540
VOR HEIDELBURG	GAUTENG	120
VOR WARDEN	FREE STATE	250
VOR LANSERIA	GAUTENG	80
VOR MAFIKENG	NORTHWEST	340
VOR PHALABORWA	LIMPOPO	520
VOR KRUGER	MPUMALANGA	350
VOR PILANESBURG	NORTHWEST	220
VOR STANDERTON	MPUMALANGA	180
VOR WITBANK	MPUMALANGA	150
NDB MAFIKENG	NORTHWEST	340

REGIONAL AIRPORTS	PROVINCE	DISTANCE (KM)
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POLOKWANE AIRPORT - FAPP	LIMPOPO	308
KRUGER AIRPORT - FAKN	MPUMALANGA	350
LANSERIA AIRPORT - FALA	GAUTENG	80
MAFIKENG AIRPORT - FAMM	NORTHWEST	340
PILANESBURG AIRPORT - FAPN	NORTHWEST	200
WONDERBOOM AIRPORT - FAWB	GAUTENG	66
RAND AIRPORT - FAGM	GAUTENG	30

RADAR SITES	PROVINCE	DISTANCE (KM)
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RADAR KRUGER SSR	MPUMALANGA	350
RADAR POTGIETERSRUST	LIMPOPO	280
RADAR WAKKERSTROOM	MPUMALANGA	350

Table B-3: Remote Sites