

SPECIFICATION FOR SUPPLY, DELIVERY AND PRODUCT TRAINING FOR PORTABLE ANALOGUE/ DIGITAL RADIO TERMINAL NATIONALLY FOR SOUTH AFRICAN POLICE SERVICE

| DESCRIPTION | | Comply/ Do not Comply |
|-------------|--|-----------------------|
| 2.5.2 | The technical information must include at least the following: | |
| 2.5.2.1 | Product technical specification. | |
| 2.5.2.2 | Detailed circuit diagrams and PC Board layouts. | |
| 2.5.2.3 | Detailed technical description of the operation of the Portable Analogue/Digital portable Radio terminal offered. | |
| 2.5.2.4 | A software manual and software needed to maintain the radio and perform fault finding and programming of the radio. | |
| 2.6 | QUALITY AND STANDARDS | |
| 2.6.1 | All materials and equipment supplied must fully comply with the requirements laid down in this specification and the latest editions of the relevant STANSA, BS, CCITT, EIA, ISO and DIN specifications or as otherwise specified. | |
| 2.6.2 | Apart from any other right that the South African Police Service may have in terms of this bid, it must have the right to set the standard and to accept or reject part of the specified equipment depending on the quality of materials and workmanship offered. | |
| 2.6.3 | The successful bidder must be notified if the quality of material and/or workmanship is not acceptable. In such an event the successful bidder must replace the specific part or repair it to the satisfaction of the South African Police Service. | |
| 2.6.4 | The successful bidder must inform the South African Police Service, in writing, two (2) weeks in advance when the consignment of radios ordered is ready for delivery. The radios will be inspected by a representative of the South African Police Service, Technology Management Services Division at the premises of the bidder that must be in the RSA. A certificate of inspection and approval for the radios will be issued by the latter representative before any of the radios ordered can be delivered. | |

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| 2.7 INVOICING AND PACKAGING | | |
| 2.7.1 | <p>The successful bidder must itemize and describe, individually all accessories, equipment and documents on the relevant delivery notes and invoices when delivering the equipment. No statement such as, "according to specification" will be accepted on a delivery note.</p> <p>See also section 2.10 of this specification.</p> | |
| 2.7.2 | Each radio including all accessories must be packaged in its own single container. | |
| 2.7.3 | All invoices must be submitted to and be marked for the attention The Section Head, South African Police Service Radio Communication Infrastructure Management and must be approved by a senior officer of the Radio Technical unit for payment. | |
| 2.8 GUARANTEE | | |
| 2.8.1 | All equipment including all accessories, supplied by the bidder to the South African Police Service must be guaranteed in terms of paragraph 15 of General Condition of Contract. | |
| 2.9 REPAIRS UNDER GUARANTEE | | |
| 2.9.1 | <p>Bidders must have qualified personnel and a fully equipped workshop available, to enable the bidder to deliver a professional and speedy service to the South African Police Service during the guarantee period. Full maintenance and repairs must be completed by the successful bidder, within two (2) weeks after the faulty equipment has been handed in at the relevant service section. (Maximum turnaround time two (2) weeks.)</p> <p>Failure to comply with this will lead to the enforcement of penalty clause as per paragraph 22 of General Condition of Contract.</p> | |

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| 2.9.2 | Bidders must state the details of qualified personnel, spares in stock, workshops and any other relevant facilities under the bidders control throughout the RSA. | |
| 2.9.3 | Note that no offer will be accepted from a bidder, if the bidder has no qualified personnel, sufficient spares in stock and a fully equipped workshop. | |
| 2.9.4 | The bidder must provide full details of such personnel, spares and workshop for inspection by the South African Police Service during the bid stage. (See also section 2.15). | |
| 2.9.5 | Bidders must report the following to the South African Police Service for any repairs done to radios during the guarantee period: | |
| 2.9.5.1 | Date of fault report, | |
| 2.9.5.2 | Nature of the fault | |
| 2.9.5.3 | Parts replaced. | |
| 2.10 | DELIVERY | |
| 2.10.1 | The successful bidder must deliver the radios offered to the address as it appears on paragraph 2.11.3. | |
| 2.10.2 | Cost for this delivery must be quoted in the bid documents and included in the bid price. | |
| 2.10.3 | A certificate of inspection and acceptance issued by the South African Police Service must be submitted by the successful bidder, before any consignments of equipment that are ready for delivery will be accepted and paid for by the South African Police Service. Random samples will be drawn from such consignments for testing by the South African Police Service. Should the failure rate of any samples tested be unacceptable then the respective bidder must be liable for the costs to have new samples from the relevant consignment retested after corrective action was taken by the bidder with respect to the improvements of the latter consignment | |

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|---------------|---|---------------------------|---|-----------|------------|---|---------------|------------|---|-----------|------------|---|--------------|---------------|---|-----------|--------------|---|---------------------------|---------------|---|--------|--------------|---|----------|--|
| 2.11 | TRAINING | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.11.1 | The following training must be provided by the successful bidder. | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.11.2 | Detailed certified technical training must be provided for selected personnel of the Radio Communication Infrastructure Management of the South African Police Service, at the facilities of Radio Technical Units or Training facility of the South African Police Service at the cost of the successful bidder. | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.11.3 | <p>The South African Police Service has Radio Technical units or a Training Facility in the following Provinces and places:</p> <table> <tbody> <tr> <td>Limpopo</td> <td>-</td> <td>Polokwane</td> </tr> <tr> <td>North West</td> <td>-</td> <td>Potchefstroom</td> </tr> <tr> <td>Mpumalanga</td> <td>-</td> <td>Nelspruit</td> </tr> <tr> <td>Free State</td> <td>-</td> <td>Bloemfontein</td> </tr> <tr> <td>Northern Cape</td> <td>-</td> <td>Kimberley</td> </tr> <tr> <td>Eastern Cape</td> <td>-</td> <td>Port Elizabeth (Gqeberha)</td> </tr> <tr> <td>Kwazulu-Natal</td> <td>-</td> <td>Durban</td> </tr> <tr> <td>Western Cape</td> <td>-</td> <td>Maitland</td> </tr> </tbody> </table> | Limpopo | - | Polokwane | North West | - | Potchefstroom | Mpumalanga | - | Nelspruit | Free State | - | Bloemfontein | Northern Cape | - | Kimberley | Eastern Cape | - | Port Elizabeth (Gqeberha) | Kwazulu-Natal | - | Durban | Western Cape | - | Maitland | |
| Limpopo | - | Polokwane | | | | | | | | | | | | | | | | | | | | | | | | |
| North West | - | Potchefstroom | | | | | | | | | | | | | | | | | | | | | | | | |
| Mpumalanga | - | Nelspruit | | | | | | | | | | | | | | | | | | | | | | | | |
| Free State | - | Bloemfontein | | | | | | | | | | | | | | | | | | | | | | | | |
| Northern Cape | - | Kimberley | | | | | | | | | | | | | | | | | | | | | | | | |
| Eastern Cape | - | Port Elizabeth (Gqeberha) | | | | | | | | | | | | | | | | | | | | | | | | |
| Kwazulu-Natal | - | Durban | | | | | | | | | | | | | | | | | | | | | | | | |
| Western Cape | - | Maitland | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.11.4 | Cost of any training or relevant material including certificates for successful trainees offered must be specified by the bidder and included in the bid price. | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.11.5 | The Bidder must indicate a training price per one (1) person. | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.11.6 | <p>The training course must cover the following curriculum in modular / outcome based format:</p> <ol style="list-style-type: none"> Basic fault finding to component or smallest modular level possible, focussed on specialised sections which is unique to the product. Common faults. Assembly & disassembly of radio. Alignment. Operation. Different configurations and options available, e.g. Remote speaker/ microphones/ antenna, panic switches, etc. Programming | | | | | | | | | | | | | | | | | | | | | | | | | |

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| 2.11.7 | Training will be offered at Radio Technical Units premises where technician can use familiar equipment and should stretch over a period of at least 3 days. | |
| 2.11.8 | The South African Police Service must be given written permission in terms of the copy right act by the successful bidder to enable the South African Police Service to duplicate course material for further training in the South African Police Service. | |
| 2.12 IDENTIFICATION | | |
| 2.12.1 | The radio must be fitted with identification markings indicating at least the manufacturers name or trademark, model number and unique serial number. | |
| 2.13 LETTERING AND LABELLING | | |
| 2.13.1 | All switches, indicators and connectors of the radio must be thoroughly and clearly labelled by means of non-erasable lettering or appropriate icons or symbols. Stick-on labels are unacceptable. | |
| 2.14 MAINTENANCE | | |
| 2.14.1 | Bidders must specify the mean time between failures (MTBF) and mean time to repair (MTTR) parameters for the radio offered as per paragraph 2.9.1 | |
| 2.14.2 | The conditions and costing of a maintenance contract which may be entered into with the bidder after the guarantee period for the radio offered has expired must be specified in the bid documents. This price must be quoted as an option and not included in the bid price. | |
| 2.14.3 | Bidders must provide a complete recommended spare parts list as per Appendix A. | |
| 2.15 CONSTRUCTION | | |
| 2.15.1 | The radio must be constructed in such a way that repairs down to component or alternatively small modular level must be easily performed. | |
| 2.16 ACCESSIBILITY OF COMPONENTS | | |

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| 2.16.1 | All components and modules must be readily accessible for repairs or replacement by service technicians. Bidder must ensure the spares are available for a period of five (5) years after the warranty has expired. | |
| 2.17 | TEST ADAPTOR KIT | |
| 2.17.1 | Bidders must quote for a test adaptor kit that must enable radio technicians to service the radio offered to component or small modular level, (e.g. VCO module, Rx front end module, time out timer module, etc.) All components, inputs and outputs must be accessible for the purpose of measurements by means of this test adaptor kit. | |
| 2.17.2 | Bidders must quote for a test kits to be included in the bid price. The South African Police Service reserve the right to determine the amount of kits needed and will only acquire enough to suit this requirement. | |
| 2.18 | PROGRAMMABILITY | |
| 2.18.1 | The radio offered must be programmable by means of a personal computer (PC). It must be programmable on any computer. Software must be upgradable to newer computers when such computers become available. Any software upgrades must be made available free of charge to the South African Police Service. | |
| 2.18.2 | It must be possible to program the radio without removing the covers from the radio or the radio from its housing. | |
| 2.19 | AVAILABILITY OF SPARES | |
| 2.19.1 | Bidders must certify in writing that they are capable to supply spares for the equipment as asked for in this bid within two weeks from receiving an order. If a bidder is unable to comply with this, then his bid must be rejected. | |
| 2.19.2 | Failure of a bidder to deliver any spares within these two (2) weeks at any stage of the contract period or within a period of two (2) years after the completion of the contract without good reason, penalty clauses as per paragraph 22 of General Conditions of Contract must be enforced on the quoted price of the spares. | |

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| 3. | GENERAL TECHNICAL REQUIREMENTS | |
| 3.1 | TRANSCEIVER | |
| 3.1.1 | This radio must have a channel capacity of at least 300 channels. | |
| 3.1.2 | The radio offered must be equipped with an encoder/ decoder for standard five tone ZVEI codes. | |
| 3.1.3 | The radio offered must have the ability to be programmed for scanning of receiver channels. | |
| 3.1.4 | The following scanning modes are required viz. | |
| 3.1.4.1 | Normal scanning - all channels. | |
| 3.1.4.2 | Selective scanning - limited number of channels with a minimum of two. | |
| 3.1.4.3 | Priority scanning - All channels or selected channels plus one priority channel. | |
| 3.1.4.4 | Scanning modes must be operator selectable. Channels to be scanned must be programmable. | |
| 3.1.5 | The radio offered must have built-in facilities to prevent damage to the RF power amplifier stage under extreme load and duty cycle variations. | |
| 3.1.6 | The radio offered must have a key pad as an integral part of the radio. | |
| 3.1.7 | It must be possible to enable or disable the key pad or specific keys by software without influencing the basic functions of the radio. | |

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| 3.2 OPERATOR CONTROLS | | |
| 3.2.1 All controls must be of robust construction. | | |
| 3.3 WATER PROOFING | | |
| 3.3.1 The radio offered must be IP 67 rating | | |
| 3.4 CORROSION PROTECTION | | |
| 3.4.1 CONNECTORS | | |
| 3.4.1.1 All connectors used, must be plated to prevent corrosion when used in coastal atmospheres. Bidders must state the type of plating used. | | |
| 3.4.2 PRINTED CIRCUIT BOARDS | | |
| 3.4.2.1 All printed circuit boards must be covered with a corrosive resistant layer to prevent degradation of the board and its associated electronic components. | | |
| 3.5 LOCKING MECHANISM FOR BATTERY | | |
| 3.5.1 The radio must be equipped with a rugged locking mechanism to ensure the battery pack will be firmly attached to the radio. | | |
| 3.6 RADIO BELT CLIP | | |
| 3.6.1 The radio must be supplied with a robust belt clip which must be attached to the radio or the battery in a secure way. | | |
| 3.6.2 The belt clip must be manufactured of high durable plastic or metal which will not brake easily. | | |

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| 3.7 PHYSICAL CHARACTERISTICS | | |
| 3.7.1 DIMENSIONS | | |
| 3.7.1.1 | The radio, including the battery pack and knobs, must not exceed the following dimensions viz. | |
| | H = 170mm W = 70mm D = 45mm | |
| 3.7.2 MASS | | |
| 3.7.2.1 | The mass of the radio including the battery pack must not exceed 500g. | |
| 3.7.3 TERMINALS | | |
| 3.7.3.1 | All terminals intended for the connection of external devices to the radio must be made of or plated with corrosive resistant material for example gold or nickel. | |
| 3.7.3.2 | Bidders must specify the type of material used for the following items viz. | |
| 3.7.3.2.1 | Antenna connector. | |
| 3.7.3.2.2 | Battery terminals. | |
| 3.7.3.2.3 | Test set connector. | |

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| 3.8 | CONTROLS | |
| 3.8.1 | All controls and switches must be of robust construction and easily accessible to the operator of the radio. | |
| 3.8.2 | The control panel will provide access to the following items viz. | |
| 3.8.2.1 | ON/OFF switch | |
| 3.8.2.2 | Volume control | |
| 3.8.2.3 | Squelch control. | |
| 3.8.2.4 | Channel selector switch | |
| 3.8.2.5 | Scanning selector. | |
| 3.9 | DISPLAYS / INDICATORS | |
| 3.9.1 | The control panel of the radio must have the following displays viz. | |
| 3.9.1.1 | Transmit indicator. | |
| 3.9.1.2 | Selected channel display - with facility to allow viewing in the dark. | |
| 3.9.1.3 | Channel busy indicator. | |
| 3.10 | MICROPHONE | |

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| 3.10.1 | External - The radio must be equipped to accept an external speaker microphone unit. | |
| 3.11 | EXTENSION SPEAKER MICROPHONE CONNECTOR | |
| 3.11.1 | The extension speaker microphone connector must be of durable and of robust construction. | |
| 3.12 | LOUDSPEAKERS | |
| 3.12.1 | Internal - The radio must have a built-in loudspeaker. | |
| 3.12.2 | External - The radio must have facilities to accept an external loudspeaker. | |
| 3.13 | LOUDSPEAKER ACOUSTICS | |
| 3.13.1 | The loudspeaker of the radio offered must comply with EIA/TIA specification RS - 316 - B section 3.2 for acoustical properties. | |
| 3.14 | PUBLIC SAFETY SPEAKER MICROPHONE: OPTIONAL ITEMS | |
| 3.14.1 | The speaker microphone unit must connect to the radio via a single external connector that, when connected, must form an integral part of the radio. | |

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| 3.14.2 | The speaker microphone unit must be fitted with a rugged clip mechanism that may be used to attach it to clothing, e.g. the lapel of a jacket or shirt when required. Applications for this may include a radio user travelling on a motorcycle who requires the unit to be close to an ear to overcome high ambient noise levels. | |
| 3.14.3 | The acoustical properties of the loudspeaker and microphone of the speaker microphone should be equal or better than that of the radio offered. | |
| 3.15 | TEST SET | |
| 3.15.1 | Bidders must quote for a test set/jig that must allow access to the following ports of the radio for automatic testing procedures viz. | |
| 3.15.1.1 | Microphone input | |
| 3.15.1.2 | Loudspeaker output. | |
| 3.15.1.3 | P.T.T. line. | |
| 3.15.1.4 | Antenna connector | |
| 3.15.2 | This test set/jig must make it possible for technicians to maintain and service the radio to modular/component level. | |
| 3.15.3 | If the radio is not equipped with a 50Ω BNC type RF connector on the antenna, a test kit with a 50Ω BNC adaptor connector will be required to allow direct access to the antenna port of the radio offered. This must form part of the test set. | |

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| 3.16 | KEY PAD | |
| 3.16.1 | The radio offered must have a key pad as an integral part of the radio. | |
| 3.16.2 | The key pad must be at minimum a 12 key DTMF keypad. | |
| 3.16.3 | The key pad must not affect the performance or the selection and quantities of features of the radio. (No degradation in performance) | |
| 3.16.4 | The following features must be available on the key pad: | |
| 3.16.4.1 | DTMF signalling | |
| 3.16.4.2 | Channel selection | |
| 3.16.4.3 | Paging (ZVEI five tone) | |
| 3.16.5 | It must be possible to disable/enable the key pad as a whole by means of the software programming of the radio. | |
| 3.16.6 | It must be possible to limit the functions of the keypad keys in such a way by software programming or a key-lock facility, that tampering with the radio, accidental bumping, etc. will not cause any software corruptions or channel changes. | |
| 3.16.7 | POWER SOURCE | |
| 3.16.7.1 | The radio offered must include two battery packs. | |

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| 3.17 | BATTERY CHARGER | |
| 3.17.1 | The radio offered must include an intelligent battery charger unit. This charger must be suitable to charge the battery (rapid and trickle) of the radio with and without the battery attached to the radio. It must also be able to recycle the battery. | |
| 3.18 | BATTERY TERMINALS | |
| 3.18.1 | The terminals must be made of or plated with a durable corrosive resistant material such as gold or nickel. Bidders must specify the type of material used. | |
| 3.19 | TEST CONDITIONS AND METHODS | |
| 3.19.1 | Must be according to ETSI 300 086:1991 sections 5 to 8. | |
| 4. | DETAILED TECHNICAL REQUIREMENTS | |
| 4.1 | CHANNEL SPACING | |
| 4.1.1 | Must be programmable for 12.5 kHz | |
| 4.2 | OPERATING FREQUENCY RANGE | |
| 4.2.1 | The radio must be able to operate in both single frequency (simplex) and dual frequency (half duplex) channels over the entire frequency range of 400MHz to 470MHz. Any combinations of receive and transmit frequency channels must be possible by means of programming and without requiring tuning or alignment procedures with the radio still meeting all the specified performance criteria. | |
| 4.3 | RF CARRIER GENERATION | |
| 4.3.1 | Must be a synthesized oscillator | |

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| 4.4 | FREQUENCY STABILITY | |
| 4.4.1 | Must be within ± 2.5 p.p.m or better for both Rx and Tx frequency generation over the entire operating frequency band. | |
| 4.5 | TRANSMITTER | |
| 4.5.1 | RATED CARRIER LEVEL | |
| 4.5.1.1 | Operator switchable between low and high power. | |
| 4.5.1.2 | The radio offered must be capable of intermittent operation as specified in ETSI 300 086:1991 (sub clause 5.5.2.) | |
| 4.5.1.3 | Normal test conditions: Within $\pm 1,50$ dB of 4W | |
| 4.5.1.4 | Extreme test conditions: Within + 2,0dB and -3dB of 4W. | |
| 4.5.2 | MAXIMUM FREQUENCY DEVIATION | |
| 4.5.2.1 | Frequency modulation rated deviation ± 2.5 kHz for 12.5 kHz channel spacing. | |
| 4.5.3 | FREQUENCY RESPONSE | |
| 4.5.3.1 | Within +1dB and -3dB of a 6dB/octave pre-emphasis characteristics between 300 and 2500Hz with the level at 1000Hz as a reference. | |
| 4.5.4 | MODULATION DISTORTION | |
| 4.5.4.1 | Less than 5% distortion at 1000Hz for 60% deviation. | |
| 4.5.5 | RESPONSE FOR MODULATION FREQUENCIES >3 kHz. | |
| 4.5.5.1 | As per ETSI 300 086:1991 (4.1.4.2) | |
| 4.5.6 | HARMONICS | |

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| 4.5.6.1 | At least 60dB below 4W level (12.5kHz channel spacing) | |
| 4.5.7 | TRANSIENT FREQUENCY BEHAVIOUR | |
| 4.5.7.1 | As per ETSI 300 086:1991 (sub clause 4.1.8). t1 = 10ms t2 = 25ms t3 = 10ms | |
| 4.5.8 | TRANSMITTER FREQUENCY STABILITY VERSUS OPERATING VOLTAGE RANGE | |
| 4.5.8.1 | For 0.9 x Nominal battery voltage the carrier frequency must be within ±2kHz of assigned channel frequency. | |
| 4.5.9 | TIME - OUT - TIMER | |
| 4.5.9.1 | The radio offered must have built-in time-out-timer circuitry that must be programmable continuously or in steps of five (5) seconds up to at least 120s. | |
| 4.6 | RECEIVER | |
| 4.6.1 | SENSITIVITY | |
| 4.6.1.1 | USABLE SENSITIVITY | |
| 4.6.1.1.1 | (12dB SINAD) Must not exceed 0.25µV. | |
| 4.6.1.2 | QUIETING SENSITIVITY | |
| 4.6.1.2.1 | (20dB QUIETING) Must not exceed 0.6µV | |
| 4.6.1.3 | SQUELCH THRESHOLD SENSITIVITY | |
| 4.6.1.3.1 | Must not exceed the input RF signal level of 0,2µV | |
| 4.6.2 | ADJACENT CHANNEL SELECTIVITY | |

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| DESCRIPTION | | Comply/ Do not comply |
|-------------|---|-----------------------|
| 4.6.2.1 | CHANNEL SPACING 12.5kHz | |
| 4.6.2.1.1 | Not less than 65,0dB (Normal test conditions) | |
| 4.6.2.1.2 | Not less than 50,0dB (Extreme test conditions) | |
| 4.6.2.2 | SPURIOUS RESPONSE REJECTION | |
| 4.6.2.2.1 | Not less than 70,0dB | |
| 4.6.2.3 | INTERMODULATION RESPONSE REJECTION | |
| 4.6.2.3.1 | Not less than 65,0dB. | |
| 4.6.2.4 | BLOCKING OR DESENSITISATION | |
| 4.6.2.4.1 | At least 90,0dB | |
| 4.6.2.5 | RATED AUDIO OUTPUT POWER | |
| 4.6.2.5.1 | At least 500 mW RMS with distortion of less than 5% @ 60% deviation. | |
| 4.6.2.6 | AUDIO AMPLITUDE CHARACTERISTIC | |
| 4.6.2.6.1 | Change in audio output level must not exceed 3dB, for a RF input signal change ranging from 6dB μ V to 100dB μ V. | |
| 4.6.2.7 | FREQUENCY RESPONSE | |
| 4.6.2.7.1 | Within +1dB and -3dB of a 6dB/octave de-emphasis characteristics between 300 and 3000Hz with the level at 1000Hz as a reference. | Comply/Do not comply |
| 4.7 | ANTENNA | |
| 4.7.1 | The antenna must have an effective operating frequency range covering the band 400 to 470MHz with the radiated power level within 2dB of the maximum level. | |

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SERVICE**

| DESCRIPTION | | Comply/ Do not comply |
|-------------|---|-----------------------|
| 4.7.2 | The antenna must have a gain of at least 0dB compared with that of a quarter wave whip antenna over the specified frequency range. | |
| 4.7.3 | CONSTRUCTION | |
| 4.7.3.1 | The antenna must be a moulded type with a connector as described in par.4.7.4 below. | |
| 4.7.4 | ANTENNA OUTPUT | |
| 4.7.4.1 | Antenna output impedance's must be 50Ω unbalanced at the antenna connector. | |
| 4.7.5 | ANTENNA CONNECTOR | |
| 4.7.5.1 | The antenna connector must be one of the following type; BNC, TNC, SMC, or similar connectors. | |
| 4.7.5.2 | Connector types which is not suitable for use on UHF or stud type connectors which do not bring out the ground connection and the conductor lead to the antenna will not be accepted. Bidders must specify what type of connector is supplied with the radio. | Comply/Do not comply |
| 4.7.5.3 | The antenna connector must be firmly attached to and supported by the casing of the radio. | |
| 4.8 | ENVIRONMENTAL CONDITIONS | |
| 4.8.1 | HUMIDITY | |
| 4.8.1.1 | Must be at least 95% at $+35^{\circ}\text{C}$. | |
| 4.8.2 | TEMPERATURE RANGE | |

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| DESCRIPTION | | Comply/ Do not comply |
|-------------|--|-----------------------|
| 4.8.2.1 | Must be -5°C to +55°C or better. | |
| 4.9 | BATTERY | |
| 4.9.1 | Bidder must quote for a battery which can power the radio for at least 14 hours on an 80:10:10 load configuration. | |
| 4.9.2 | Bidders must quote for either a Lithium-ion or Lithium-polymer battery with a minimum capacity of 2000mAh. | |
| 4.10 | BATTERY CHARGER | |
| 4.10.1 | MAINS SUPPLY | |
| 4.10.1.1 | The charger must be suitable to be directly connected to a 220 volt AC ±10%, 50Hz mains supply. | |
| 4.10.1.2 | The charger must be fitted with a standard 16A three pin mains plug to be plugged into the standard mains outlet sockets commonly used in the RSA. | |
| 4.10.2 | CHARGING RATE | |
| 4.10.2.1 | The charger must have rapid charge facility to allow a charging rate of C/1. It must automatically revert to a trickle charge rate when the battery reaches its fully charged state. | Comply/Do not comply |
| 4.10.3 | TRICKLE CHARGING | |
| 4.10.3.1 | The charger must automatically sense the battery condition and switch to trickle charge mode to top up the battery if necessary. | |
| 4.10.4 | INDICATORS | |
| 4.10.4.1 | The charger must give the following indicators to make it possible to manage the charging or reconditioning of the battery; | |
| 4.10.4.1.1 | Battery charging | |

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| DESCRIPTION | | Comply/ Do not comply |
|-------------|---|-----------------------|
| 4.10.4.1.2 | Battery charged | |
| 4.10.4.1.3 | Charging fault | |
| 4.10.4.1.4 | Battery fault/not charging | |
| 4.11 | AUDIO ACCESSORIES | |
| 4.11.1 | Bidders must include a list and quote as an option per different types of headsets/audio accessories available to be used during operations and protection duties. These headsets and accessories will form part of the successful bid. | |

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APPENDIX A

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**SPECIFICATION FOR SUPPLY, DELIVERY AND PRODUCT TRAINING FOR PORTABLE ANALOGUE/ DIGITAL
RADIO TERMINAL NATIONALLY FOR SOUTH AFRICAN POLICE SERVICE**

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APPENDIX B

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SPECIFICATION APPROVAL PAGE:

End User Approval

Division Technology Management Services: Radio Communication Infrastructure Management

Min. SEAB1 Brigadier/General
Date: 2023-10-30

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THE NATIONAL TREASURY

Republic of South Africa



**GOVERNMENT PROCUREMENT:
GENERAL CONDITIONS OF CONTRACT**

July 2010

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GOVERNMENT PROCUREMENT

GENERAL CONDITIONS OF CONTRACT

July 2010

NOTES

The purpose of this document is to:

- (i) Draw special attention to certain general conditions applicable to government bids, contracts and orders; and
- (ii) To ensure that clients be familiar with regard to the rights and obligations of all parties involved in doing business with government.

In this document words in the singular also mean in the plural and vice versa and words in the masculine also mean in the feminine and neuter.

- The General Conditions of Contract will form part of all bid documents and may not be amended.
- Special Conditions of Contract (SCC) relevant to a specific bid, should be compiled separately for every bid (if applicable) and will supplement the General Conditions of Contract. Whenever there is a conflict, the provisions in the SCC shall prevail.

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TABLE OF CLAUSES

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General Conditions of Contract

1. Definitions

1. The following terms shall be interpreted as indicated:
 - 1.1 "Closing time" means the date and hour specified in the bidding documents for the receipt of bids.
 - 1.2 "Contract" means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
 - 1.3 "Contract price" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
 - 1.4 "Corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.
 - 1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
 - 1.6 "Country of origin" means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
 - 1.7 "Day" means calendar day.
 - 1.8 "Delivery" means delivery in compliance of the conditions of the contract or order.
 - 1.9 "Delivery ex stock" means immediate delivery directly from stock actually on hand.
 - 1.10 "Delivery into consignees store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
 - 1.11 "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the

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RSA.

- 1.12 "Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 1.13 "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.
- 1.14 "GCC" means the General Conditions of Contract.
- 1.15 "Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
- 1.16 "Imported content" means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.
- 1.17 "Local content" means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.
- 1.18 "Manufacture" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19 "Order" means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20 "Project site," where applicable, means the place indicated in bidding documents.
- 1.21 "Purchaser" means the organization purchasing the goods.
- 1.22 "Republic" means the Republic of South Africa.
- 1.23 "SCC" means the Special Conditions of Contract.
- 1.24 "Services" means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such

obligations of the supplier covered under the contract.

1.25 “Written” or “in writing” means handwritten in ink or any form of electronic or mechanical writing.

2. Application

2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.

2.2 Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.

2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

3. General

3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.

3.2 With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za

4. Standards

4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

5. Use of contract documents and information; inspection.

5.1 The supplier shall not, without the purchaser’s prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.

5.2 The supplier shall not, without the purchaser’s prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.

5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier’s performance under the contract if so required by the purchaser.

5.4 The supplier shall permit the purchaser to inspect the supplier’s records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

6. Patent rights

6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.

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| 7. Performance security | <p>7.1 Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.</p> <p>7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.</p> <p>7.3 The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:</p> <ul style="list-style-type: none"> (a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or (b) a cashier's or certified cheque <p>7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.</p> |
| 8. Inspections, tests and analyses | <p>8.1 All pre-bidding testing will be for the account of the bidder.</p> <p>8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organization acting on behalf of the Department.</p> <p>8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.</p> <p>8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.</p> <p>8.5 Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.</p> <p>8.6 Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.</p> <p>8.7 Any contract supplies may on or after delivery be inspected, tested or</p> |

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