

BROAD/AoN DETAILS FOR PROCUREMENT OF HAND HELD RADIO SETS

1. **AoN Date.** 22 Dec 2022
2. **Item Description (Weapon/Equipment/Platform).** Hand Held Radio Sets (HHRS), Digital Base Stations and Digital Repeater Stations based on DMR Tier II are envisaged to be light-weight, ergonomic and easy to handle. HHRS sets will be supported in both Analog and Digital Operations with industrial grade secrecy of AES 256 encryption. System will have a provision to support third party encryption. The system will be capable of providing seamless communication in an IP repeater network. HHRS will be capable of sending Short Messages from Keypad and Pre-defined Messages list. HHRS system will support GPS tracking and GIS mapping.
3. **Quantity.** 52000 HHRS, 2600 Base Stations, 1040 Repeaters
4. **Categorisation.** Buy (Indian) as per provision of Chapter V of DAP 2020.
5. **Broad Parameters/ORs of the item.**

<u>Ser No</u>	<u>Parameter</u>	<u>Value</u>
(a)	Modes of Operation	(i) Analog (ii) Digital
(b)	Channel Spacing	12.5 KHz/ 25 KHz
(c)	Frequency Range	405-470 MHz
(d)	Channel Capacity	1000 or more
(e)	Weight including battery	750 grams or less including battery (HHRS) 5 Kg or less without accessories (Base Station) 15 Kg or less (Repeater)
(f)	Dimensions (H x W x D)	<u>HHRS</u> 150 mm (H) x 80 mm (W) x 60 mm (D) or less <u>Base Stations</u> 60 mm (H) x 180mm (W) x 210mm (D) or less <u>Repeater</u> 150 mm (H) x 600mm (W) x 500mm (D) or less
(g)	Single Location and Roaming Operation	It should be capable of providing seamless communication in an IP repeater network.

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(h)	Hands Free Operation	Bluetooth or VOX based solution be provided for complete hands free operation.
(j)	Communication Security	System should have in built AES 256 bit encryption and should also have provision to support 3 rd party Encryption. If an additional external device other than a PC or programming cable is required to load the encryption key, the same will be provided with every Hand Held Radio, Base Station and Repeater Station.
(k)	GPS Based Tracking	Must have an in built GPS to enable tracking from Remote Control Station with appropriate system.
(l)	GIS	Radio should have Application Protocol Interface for development of software applications to provide Locations and messaging on PC/ Console.
(m)	Text Messaging	Should be capable of sending Short Messages from Keypad and Pre-defined Messages list
(n)	EMI/EMC	Mil-Std-461E or equivalent
(o)	Compliance	JSS55555 or MIL-STD-810G or better for HHRS and Base Stations
(p)	Antenna and Feeder (For Repeater)	<ul style="list-style-type: none"> • Ground Plane antennas with 30 meter low-loss RF Cable • Flexible feeder cables. (Qty 02 Antennas with 02 cables per Repeater) RG 217 or better low loss cable will be provided

6. **Special Instructions on Demo if any.**

Demo on NCNC basis at the TEC stage.

7. **Any other specific instruction.**

(a) Hand Held Radio Sets, Digital Base Stations, Digital Repeater Stations will be from single OEM and will be fully compatible with each other in all modes and aspects and also with the existing inventory of DMR radio sets in the IA.

(b) The bids are likely to be submitted in last week of Jan 2023.