

RESTRICTED

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Baishakh 1430

14  
27  
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**RE-EVALUATION OF GROUND SURVEILLANCE RADAR (GSR) FOR BANGLADESH ARMY**

Reference:

A. Army Headquarters, General Staff Branch, Infantry Directorate letter number 23.01.901.034.02.026.06.11.04.23/01 dated 11 April 2023 (Not to all).

1. In light of above reference, you are requested to submit the offer for the suitable models of Ground Surveillance Radar (GSR) directly to Army Headquarters, General Staff Branch, Infantry Directorate with intimation to this office **by 10 May 2023** fulfilling the requirement mentioned below:

- a. Letter of authorization by Manufacturer/Principal mentioning that the said company will be the local vendor/agent for offered model.
- b. Manual (Original Printed by Manufacture) and CD.
- c. Catalogue (Original Printed by Manufacture) and CD.
- d. Catalogue of Spare Parts (Original Printed by Manufacture) and CD.
- e. Brochure (Original Printed by Manufacture) and CD
- f. Enlistment Certificate of DGDP.
- g. Short video clip on the system.
- h. Picture of standard and optional items.
- j. Certification from Manufacturer on permission to export the said system to Bangladesh Army.

2. Interested local firms/agents may collect the technical specification for above mentioned Ground Surveillance Radar (GSR) from this office. Forwarded for your information and necessary action please.

  
**MD MAHBUBUR RAHMAN**  
Lieutenant Colonel  
For Director General

Enclosure:

1. Technical Specification-04 (Four) Pages.

Distribution:

External:

Information:

Army Headquarters, General Staff Branch (Coordinate)

Army Headquarters, General Staff Branch, Infantry Directorate

Action:

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All Concerned Supplier/Firm

Internal:

IT Section (For uploading to website)

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**TECHNICAL SPECIFICATION OF  
GROUND SURVEILLANCE RADAR (GSR)- SHORT RANGE (SR)**

Ser	Description	Specification	To be filled up by the Manufacturer/Principal
(a)	(b)	(c)	(d)
<b>Part-1: General Specification</b>			
1.	Nomenclature	Ground Surveillance Radar (short Range)	
2.	Type	Compact, lightweight and man portable military version	
3.	Model	To be mentioned	
4.	Country of Origin	Group B	
5.	Country of manufacturer	Group B	
6.	Country of assembly	Group B	
7.	Name of Manufacturer with complete address (Office address, Telephone, Fax, Email and web address)	Details to be mentioned	
8.	Name of Principal with complete address (Office address, Telephone, Fax, Email and web address)	Details to be mentioned	
9.	Name of Local Agent with complete address (Office address, Telephone, Fax, Email and web address)	Details to be mentioned	
10.	Year of Production	Brand new and not earlier than the contracted year.	
<b>Part-2: Technical Specification</b>			
11.	<b>Main Features</b>		
	a. Should be easy to carry by 2/3 men in military type backpack harness or similar arrangement.		
	b. Should be easy to deploy/redeploy (Set-up/Re-setup) and operate by Infantry troops in battle field environment.		
	c. Should be used as a stand alone radar unit, also operate as multi unit radar cluster via IP network (cable, fiber-optic LAN, Wi-Fi, etc.) from any standard PC.		
	d. Should have the facility to operate remotely (Minimum 100 m away from the antenna) via cable.		
	e. Should be able to operate all weather condition at high humidity and high clutter condition (weather of Bangladesh is highly humid and continuous rainfall almost 6 months in a year due to monsoon, country side is thickly vegetated and long distance view of open field is obstructed by tall grasses/small bushes)		
	g. Should have GPS unit to determine own position and true north.		
	h. Should have the arrangement of integrate different map formats.		
	j. Should be able to detect, identify and classify the object/target.		
	k. Should operate by portable rechargeable battery pack and arrangement for vehicular power and commercial power supply (220 volt, 50 Hz)		
	l. Should have the optional provision to mount on mast/vehicles as an additional arrangement.		
12.	Frequency Band	To be mentioned	
13.	Operating Frequency Range and Bandwidth	To be mentioned	
14.	No of channels and grouping	Details to be mentioned	
15.	Beam width	Details to be mentioned	
16.	Scan rates	Details to be mentioned	
17.	Scanning process and modes	Details to be mentioned	
18.	Transmission Type	Pulse Doppler/FMCW or any other additional facility to be mentioned	
19.	Transmitting Power	Details to be mentioned	
20.	Operation mode	Details to be mentioned	

21.	<b><u>Max Detection and Classification Range:</u></b>	
	a. Single Person	Minimum 3 Km
	b. Small Vehicle/Water car etc	Minimum 5 Km
	c. Large Vehicle/Tank Water craft etc	Minimum 8 Km
	d. Low Flying Aircraft	To be mentioned
22.	Instrumental Range	To be mentioned
23.	Accuracy	To be mentioned
24.	Target Capacity	Number of Target Tracks, Plots and other details to be mentioned
25.	Maximum Target Speed for Detection	To be mentioned
26.	Maximum Target Per Scan	To be mentioned
27.	Audio Alarm System	To be mentioned
28.	Display Unit	Rugged display system and colour display having minimum 800 GB data storage. It should be a complete unit having all other required items and accessories. Details specification to be mentioned
29.	<b><u>Antenna</u></b>	
	a. Type of Antenna	To be mentioned
	b. Mode of Operation	Auto and Manual to be mentioned
	c. Shape of Antenna	To be mentioned
	d. Scan Area	Azimuth and Elevation-Details to be mentioned
	e. Remote Operation	Should have the arrangement to operate remotely (100 m away from Antenna) via cable
	f. Mounting	Antenna mounting option to be mentioned
	g. Any other features	To be mentioned
30.	<b><u>Power Supply and Battery</u></b>	
	a. Battery Pack (Rechargeable)	Details of Battery Pack(s) including, type, quantity and capacity to be mentioned (unit should provide minimum 12 hours continuous power support
	b. Alternative Power supply	Should have the alternative power arrangement (s) to operate radar unit by vehicular power, and commercial power supply (220 volt, 50) should include necessary adapters, plug, socket, cables etc
31.	<b><u>Environmental Issue</u></b>	Military Standard <b>810 Series or Similar European Standard.</b> To be mentioned
	a. Water Proof	Type of protection against (Rain/Plash/immersion) to be mentioned
	b. Sand/Dust proof	Type of protection against Sand and dust to be mentioned
	c. Shock/Vibration proof	Type of protection against Shock/Vibration to be mentioned
	d. Operating storage temperature and Humidity	To be mentioned
32.	<b><u>Security Features</u></b>	
	a. Electronic detection	Type of protection against enemy (opponent) electronic detection to be mentioned
	b. Jamming	Type of protection against enemy (opponent) Jamming to be mentioned

	c. Low power consumption	Pick, average and lowest rate of power during operation to be mentioned	
	d. Visual detection	Camouflage arrangement of radar antenna to obstruct visual enemy detection to be mentioned	
	e. Other Security Arrangement/ Feature available	To be mentioned	
33.	Software and Connectivity		
	a. Operating Software	Windows based and it must be easy to operate by any ordinary soldier with only elementary knowledge. Details to be mentioned.	
	b. Backup Software	Complete backup software to be provided for easy re-install incase of system failure	
	c. Interfacing/connectivity Port	Details to be mentioned (interfacing with other radar units/systems, Ethernet, Wi-fi etc- Should be available	
34.	Model validity	Minimum 10 Years	
35.	Spare parts validity	Minimum 15 Years	
36.	Body painting	Olive Green/Combat colour	
37.	<b><u>Weight and Dimension</u></b>	Complete radar unit (excluding the camera) to be accommodated in ½ packs. Each pack not exceeding 25 kg. Details to be mentioned	
	a. Gross Weight of complete Equipment	Total weight of the stand alone radar unit, with essential components, Details to be mentioned	
	b. Weight of Other Accessories	Major Components, to be mentioned	
	c. Backpack/Rack sack	Number of packs, colour, weight and shape to be mentioned	
	d. Dimension	Dimension of major units like antenna, tripod, battery pack, laptop to be mentioned	
38.	List of all essential standard items and accessories including all cable etc with quantity for each GSR to be provided		
39.	List of all additional (optional) items and accessories with quantity for each GSR- To be provided (price to be quoted separately)		
40.	Any other feature/items/accessories not mentioned above but required for full range of operation of the radar to be supplied		
41.	Other details specification/parameters of the subject equipment to be mentioned		
42.	Manufacturer website/URL where details of offered radar are available to be mentioned		
43.	<b><u>Additional Item</u></b> (Price to be quoted separately, this price not to be added with the total price of the radar unit mentioned above)		
	<b><u>a. Day and Night Camera</u></b>		
	(1) Complete and Integrated day and night camera/imaging system		
	(2) Compact, light weight and man portable version		
	(3) Should carried by back pack/harness		
	(4) Easy to deploy and redeploy		
	(5) To be operated as single Camera unit as well as integrated with the radar system/unit		
	(6) User friendly and supporting software to support radar-camera operation		
	(7) Weight of the Tripod/mast	To be mentioned	
	(8) Height of the Tripod/mast	Maximum & minimum	
	(9) Cooled/Uncooled	To be mentioned	

	(10) Weight of the camera	To be mentioned	
	(11) Magnification	To be mentioned	
	(12) Generation	To be mentioned	
	<b>Accessories</b> (Price of the accessories should quoted separately this price will not be included with the total price of radar unit)		
	b. Solar Battery Charger	Compatible for the radar unit with required accessories	
	c. Any other accessories (If any)	To be mentioned	
<b>Part-3 : TRAINING REQUIREMENT</b>			
44.	a. Various uses	To be provided (As per requirement of Infantry Directorate)	
	b. General care and field maintenance		
	c. Storage related training		
<b>Part-3B : OPERATION, REPAIR AND MAINTENANCE TRAINING</b>			
45.	Operation, repair and maintenance training	To be provided (As per requirement of EME Directorate)	
<b>Part-3C : EQUIPMENT MANAGEMENT TRAINING</b>			
46.	Equipment management training	To be provided (As per requirement of Ordnance Directorate)	
<b>PART-4: REPAIR AND MAINTENANCE REQUIREMENT LESS LIST OF SPARES</b>			
47.	a. SST/measuring & testing /fault finding and diagnostic set	If available list to be provided (as per requirement of EME Directorate)	
	b. SSM	If available list to be provided (As per requirement of EME Directorate)	
	<b>c. Publications</b>		
	(1) Owners/operations manual in English (book type) including CD/DVD)	To be provided (As per requirement of EME Directorate)	
	(2) Workshop/repair manual in English (book type) including CD/DVD)	To be provided (As per requirement of EME Directorate)	
	(3) 100% Updated master spare parts catalogue in English (book type) including CD/DVD	To be provided (As per requirement of EME Directorate)	
	(4) Complete and updated master spare parts price catalogue/list in English (book type) including CD/DVD)	To be provided (As per requirement of EME Directorate)	
<b>Part-5 : LIST OF SPARES</b>			
48.	List of spares	To be provided	
<b>Part-6 : TOOLS LIST FOR DIFFERENT LEVEL OF MAINTENANCE</b>			
49.	Tool list for different level of maintenance	To be provided	
<b>Part-7 : FINANCIAL SPECIFICATION</b>			
50.	<b>Financial aspects</b>		
	a. Price of Weapon System with standard accessories	To be provided	