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महानिदेशक/DG

महानिरीक्षक/IG

No. IV-P/604/2015 (389)/HHDS (1D)/NSG - 189/

भारत सरकार/Government of India गृह मंत्रालय/Ministry of Home Affairs

पु<u>लिस आधु</u>निकीकरण प्रभाग /Police Modernization Division

संभरण-। डेस्क/Prov.I Desk

26, Man Singh Road, Jaisalmer House, New Delhi, the 18th November, 2016.

The Director General
National Security Guard

Mehram Nagar, Palam, New Delhi

Subject: QRs and TDs of Hand Held Detector Sensor/Through Wall Radar (1D)

The undersigned is directed to refer to NSG letter no. P/604/2015 (389)/HHDS (ID)/NSG dated 21.07.2016 on the subject mentioned above and to state that the QRs and TDs in respect of Hand Held Detector Sensor / Through Wall Radar (1D), as per Annex-I and Annex-II respectively have been approved by the Competent Authority in MHA.

- 2. Henceforth, NSG should procure the above item required by them strictly as per revised laid down QRs/TDs.
- 3. NSG will be accountable for correctness of the QRs/TDs.

Encl: As above.

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DIG (Prov)

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Team Cdr

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Yours faithfully,

(Ritesh Kumar)

Under Secretary (Prov-I)

Tel: 2338 1278

Copy to:

- SO (IT), MHA: with the request to upload the instant QRs and TDs of Hand Held Detector Sensor / Through Wall Radar (1D) on the MHA website (under the page of Organizational Set up-Police Modernization Division-Qualitative Requirement Specification under Equipment Equipment List). Soft copy is being sent through e-mail.
- 2. DDG (Procurement), MHA

(V. Devadas) SO (Prov-I)

DATE - 2/12/16

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QRs/SPECIFICATIONS OF HAND HELD DETECTOR SENSOR/ THROUGH WALL RADAR (1D)

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<u>Ser</u> No			Qualitative Requirements
1.	Phy	sical Characteristics	
	(a)	Physical Attributes	Compact, portable and operable by one soldier.
	(b)	Weight (in Kg) of Hand	Should be less than 1.5 Kg including batteries.
		Held Unit	The state of the s
2.	Tech	nical Characteristics	
	(a)	Range	15 Meter or better.
	(b)	Display	(i) It should display presence of living being (Target direction of movement and distance.
	()		(ii) It should also have a battery status indicator.
	(c)	Field of view	120° or better in both azimuth and elevation.
	(d)	Capability required	The system should be capable of :-
			(i) Detecting living being behind wall
			(ii) Operating both, in-contact with the wall and in stand-off mode i.e. from a distance away from the wall with in the op range of the radar.
	25		(iii) Should have a simple user interface for easy interpretation of the scenario.
			(iv) Should have rugged design for military operations and should conform to MIL 810F std.
	(e)	Power Supply	(i) Suitable rechargeable batteries to be provided to power the equipment. The vendor should also provide spare set of batteries.
			(ii) 220 V AC Bty charger should be part of package.
	(f)	Operating Time (in Hours)	3 Hrs or better in operational mode.
	(g)	Wall Thickness/Materials	Should be able to penetrate minimum 18" wall constructed of standard building material like reinforced concrete, brick and block separated by a cavity, timber etc.
	(h)	Operating Temperature	Should be able to function at temperature range with -10° C to $+50^{\circ}$ C.
	(j)	Safety	The radiation emission from the radar should be within permissible safety limits as per prevalent world standards.
	(k)	Vibration Sustenance	Should comply to MIL STD 810E.
	(1)	Ingress Protection	Should comply to IP 67/ MIL STD 810E.
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QRs/SPECIFICATIONS OF HAND HELD DETECTOR SENSOR/ THROUGH WALL RADAR (1D) (Contd....)

Ser No	Qualitative Requirements
	Aspects
3.	<u>Literature</u> . Operating and Technical manual should be provided by the vendor in English.
4.	Demonstration and Training. Demonstration of one set of complete system with its full accessories should be arranged in Delhi on NO cost NO commitment basis. In situ training of users for three day on operation, maintenance, fault finding and user level repairs.

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APPROVED / NOT APPROVED

(RC Tayal) DG, NSG 19/8

TRIAL DIRECTIVES FOR HAND HELD DETECTOR SENSOR/THROUGH WALL RADAR (1D)

er lo		n	Qualita	ative Requirements	Trial Methodology
	Phys	ical Characteri	stics		
	(a)	Physical Attribu	utes	Compact, portable and operable by one soldier.	To be physically checked by BOO.
	(b)	Weight (in K Hand Held Uni		Should be less than 1.5 Kg including batteries.	To be physically checked by BOO.
	Tech	nical Character	istics		
	(a)	Range	15 Me	eter or better.	Human Target to be placed at 15 m from the equipment behind a wal of minimum 18" and detection of the same by eqpt should be ascertained progressively.
	(b)	Display	(i) being distar (ii) indica	It should also have a battery status	All the display modes to be physically verified by BOO
	(c)	Field of view	120°	or better in both azimuth and elevation.	(aa) To be checked Physically by BOO. (ab) Horizontal and vertical angular arc representing 120 degrees to be marked by BOO. (ac) Human Target should be made to stand on each edge of the arc while equipment placed at vertex of arc behind wall. (ad) Equipment should be able to detect the human target both in horizontal and vertical 120 degree angle, without moving the eqpt.
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TRIAL DIRECTIVES FOR HAND HELD DETECTOR SENSOR/THROUGH WALL RADAR (1D) (Contd....)

Ser			Qualitative Requirements	Trial Methodology
No	(d)	required	The system should be capable of :- (i) Detecting living being behind wall (ii) Operating both, in-contact with the wall and in stand-off mode i.e. from a distance away from the wall with in the op range of the radar. (iii) Should have a simple user interface for easy	the same by eqpt should be ascertained progressively. (ac) BOO should check the certificate from
			interpretation of the scenario. (iv) Should have rugged design for military operations and should conform to MIL 810F std.	
	(e)	Power Supply	(i) Suitable rechargeable batteries to be provided to power the equipment. The vendor should also provide spare set of batteries.	To be physically checked by BOO.
	(f)	Time (in	(ii) 220 V AC Bty charger should be part of package.3 Hrs or better in operational mode.	To be checked physically by BOO in operational mode.
		Hours)	h .	1

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TRIAL DIRECTIVES FOR HAND HELD DETECTOR SENSOR/THROUGH WALL RADAR (1D) (Contd....)

		Qualitative Requirements	Trial Methodology
No			To be physically checked by BOO.
	(g) Wall Thickness / Materials	reinforced concrete,	BOO should check the certificate from
	(h) Operating Temperature	Should be able to function at temperature range with -10° C to +50° C.	ational Accredited Lab.
	(j) Safety	The radiation emission from the radar should be within permissible safety limits as per prevalent world standards.	ational Accredited Lab.
. E	(k) Vibration Sustenance	Should comply to MIL STD 810E.	
7	(I) Ingress Protection	Should comply to IP 67/ MIL STD 810E.	BOO should check the certificate from National/International Accredited Lab.
<u>ن</u> ا	3 I iterature Operating and T		
4.		echnical manual should be provided by the vendor in English.	Vendor to submit a certificate for the same.
LA	ation a		Vendor to submit a certificate for the same. Vendor to submit a certificate for the same.
The state of the s	ation a sories users f	Literature. Operating and Technical manual should be provided by the vendor in English. Demonstration and Training. Demonstration of one set of complete system with its full accessories should be arranged in Delhi on NO cost NO commitment basis. In situ training of users for three day on operation, maintenance, fault finding and user level repairs.	Vendor to submit a certificate for the same. Vendor to submit a certificate for the same. Fig. 5. Fig. 1. Line 1. Li
	ation a sories users f	Training. Demonstration of one set of complete system with its ould be arranged in Delhi on NO cost NO commitment basis. In situated day on operation, maintenance, fault finding and user level repairs. RAGHU, M.D RAGHU,	Vendor to submit a certificate for the same.
Maj, shawa Tellus)	ation a sories users f	Demonstration of one set of complete system with its ranged in Delhi on NO cost NO commitment basis. In situ operation, maintenance, fault finding and user level repairs. J.M.D Fos, Fry Control 1 184 156 1586 2154	Vendor to submit a certificate for the same. Vendor to submit a certificate for the same. Letting (Letting) (Hat finder king) (Hat finder king)

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(RC Tayal) DG, NSG