

**Directorate General, CRPF**  
Block No.1, CGO Complex, Lodhi Road, New Delhi  
(Ministry of Home Affairs/ Grih Mantralaya)  
(Tele No.011-24369587, Fax No.011-24360155, E.mail:  
dcordnance@crpf.gov.in)

**No. A.VII-53/2022-Prov-Ord-6 (QRs)**

**Dated, the 30 August'2022**

To,

**Smt. M.P Suganthi,**  
Senior Technical Director,  
Ministry of Home Affairs,  
12-A, North Block,  
New Delhi  
E-mail: [mpsugandhi@nic.in](mailto:mpsugandhi@nic.in) & [soit@nic.in](mailto:soit@nic.in)

**Subject: Regarding publishing of draft QRs/TDs of dog related stores on MHA Website**

MHA (PM Division) Prov.I vide their OM No. A-33025/30/2021-PM-K9 CELL/13 dated 11/01/2022 has assigned the responsibilities to CRPF for framing QRs / TDs for Dogs and related stores.

2. In this regard, CRPF is formulating QR/TDs of following dog related stores:-

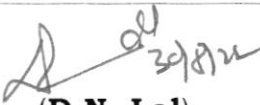
- i) Canine Remote Deployment System (CRDS)
- ii) K9 Vision System

3. Accordingly, second sub group committee meeting held on 11/05/2022 and after considering the comments of the firms, Sub Group Committee has recommended to finalise the QRs/TDs of above dog related stores.

4. Now, the copy of draft QRs & Trial Directives of above dog related stores are being sent herewith with the request to upload these in MHA's Website for a period of 15 days (from 01/09/2022 to 15/09/2022) for vendor's comments. The interested vendors/OEMs may sent their comments in the following address:-

<b>Through Mail</b>	<a href="mailto:dcordnance@crpf.gov.in">dcordnance@crpf.gov.in</a>
<b>Through Fax</b>	011-24360155
<b>By Hand</b>	Directorate General, CRPF, Room No. 10, Ground Floor, Block No. 01, CGO Complex, Lodhi Road, New Delhi-110003

**Encls:** Draft QRs & TDs of dog related stores  
( lvs)

  
(D.N. Lal)

DIG (Ord) Dte. Genl. CRPF

**Contd... P/2**

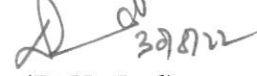
:: 2 ::

No. A.VII-53/2022-Prov-Ord-6 (QRs)

Dated, the 30 August'2022

**Copy forwarded to:-**

Dr. (Col) Pramod Chug, Consulting Director, Police K9 Cell, PM Division, Ministry of Home Affairs, GoI, HQ NSG, Mehram Nagar, Palm, New Delhi – 110 037 for kind information with reference to MHA (PM Division) Prov.I OM No. A-33025/30/2021-PM-K9 CELL/13 dated 11/01/2022. [prahug.830n@gov.in](mailto:prahug.830n@gov.in)



**(D.N. Lal)**

DIG (Ord) Dte. Genl. CRPF

**Internal:**

DIG (IT) Dte. Genl. CRPF along with copies of draft QRs and TDs of Dog related stores with the request to hoist these QRs & TDs in CRPF Website for 15 days (from 29/08/2022 to 12/09/2022) for comments of eligible vendors & industry (**Encl** : Draft QRs & TDs).  
[webitwing@crpf.gov.in](mailto:webitwing@crpf.gov.in)

## **EXPRESSION OF INTEREST**

The operational Units of CRPF deployed in the IED prone region of LWE and J & K are pressing hard for providing of K9 teams. CRPF is in process for procurement of working line breeding stock of K9s and pups of BSM (Belgian Shepherd Malinois).

2. Draft QR/TDs of the following dog related stores are attached as Appendix A”

- i) Canine Remote Deployment System
- ii) K9 Vision System

3. The firms / vendors who are dealing with production / selling of these stores in India or can provide same in India are requested to offer their comments on the draft QR/TDs for a period of 15 days w.e.f 29/08/2022 to 12/09/2022 in the following address/route:-


<b>Through Mail</b>	<u><a href="mailto:dcordnance@crpf.gov.in">dcordnance@crpf.gov.in</a></u>
<b>Through Fax</b>	011-24360155
<b>By Hand</b>	Directorate General, CRPF, Room No. 10, Ground Floor, Block No. 01, CGO Complex, Lodhi Road, New Delhi-110003

**Contact person:**

Shri. Vinay Verma,

Dy. Commandant (Ord) Directorate General,  
CRPF, New Delhi

Mobile No. 9165462172

  
30/8/22

**(D.N. Lal)**

DIG (Ord) Dte. Genl. CRPF

**Draft Qualitative Requirements of K9 Vision System**

S/N	Qualitative Requirements
1.	<b>MASK</b>
	a) It should be made out of breathable mesh capable to keep out debris, maximize airflow, and drain quickly for use in water.
	b) Should have provision of simple back buckle to make it easy to put on or take off.
	c) Should have adjustable side straps for a secure fit and lateral stability.
	d) Should have spherical, interchangeable, polycarbonate lenses with rating of at least UV 400 and ANSI (American National Standards Institute) Z87.1.2010 for impact resistance.
	e) Should have durable foam edging of at least 5 mm for comfort.
	f) Should have elastic segment which allows for full jaw motion while still ensuring a stable fit.
	g) Should have adjustable tri-glide buckle for a snug custom fit around the muzzle
	h) Should have dimensions of at least 165mm x 80 mm x 40 mm (Length x Width x Depth) and total weight of 150 gm (max)
2.	<b>CAMERA</b>
	a) Front camera should have the following features :-
	i) Colour and B & W modes
	ii) Low light mode
	iii) Capable of providing output with resolution of full HD (1920x1080), HD (1280x720) analogue (704x576)
	b) Rear camera should have the following features :-
	i) Colour and B & W modes
	ii) Low Light mode
	iii) Capable of providing output with resolution of full HD (1920 x 1080), HD (1280x720), analogue (704 x 576)
3.	<b>HP (HEARING PIECE)</b>
	a) Should be of miniature make with minimum dimensions of 22 x 28 mm
	b) Should be made of flexible and water proof membrane
	c) Should have minimum impedance rating of 8 Ω with maximum wattage of 2 watts
4.	<b>LEDs</b>
	a) Should have 3 x high intensity white LED lights and 03 x high intensity infra-red LED lights.

	b) The LED lights should have minimum brightness of 07 lumens.
5.	<b>COLLAR</b>
	a) The collar should have a curved loop shape
	b) Collar should be made of flexible and elastic material.
	c) It should have minimum dimensions of 545 mm (length) and 35mm (width) and max weight of 200 gm
6.	<b>POUCH</b>
	a) Should be made of rugged material
	b) Should have provision of zip fastened cover.
7.	<b>DOG TRANSMITTER</b>
	a) Should have provision of operating modes of audio and video transmission.
	b) Should have 1 x built in recorder with micro SD card of 128 GB maximum capacity.
	c) Should have radio-frequency output power in the range of 60-250 mW
	<b>d) Should have maximum dimensions of 50 mm x 40 mm x 12 mm (L x W x D)</b>
	e) Should be capable of operating between temperature range of 0° C to 50° C
	f) Should be provided with remote capable of full control over a minimum range of 450m
8.	<b>RECEIVER</b>
	a) Should have sensitivity rating of at least 90- dBm
	b) Should have built – in recorder with 02 x 32 GB SD cards
	c) Should be capable of recording time of at least 15 hrs.
	d) Should have LCD screen of at least 4.5 inches size
	e) Should have maximum dimensions of 150 mm x 130 mm x 30 mm (L x W x D)
	f) Should be capable of operating between temperature range of 0° C to 50° C
	g) Should have internal battery of at least 8Ah capable of charging with supplied external AC/DC converter and DC/DC car converter
	h) Radio frequency should be in range of 900 – 1400 MHz with bandwidth of 7-8 MHz
	j) Should have modulation with COFDM (Coded Orthogonal Frequency with Division Multiplexing) of 900 Carriers
	k) Should have 2 channel stereo audio with band width between 20 Hz to 6 kHz
	l) Should be at least capable of video standards of HD with minimum resolution of 1280 x 720 and fps of 25.
	m) Should have facility of data encryption and password

9	<b>DIGITAL RADIO</b>
	a) Should have UHF (Ultra High Frequency) frequency range between 400-470 MHz
	b) Should have channel capacity of 256 with 16 zones with 16 channels per zone.
	c) Should have maximum dimensions of 125 mm x 60 mm x 25 mm (L x W x D)
	d) Weight should be less than 165 grams.
	e) Should be supplied with battery of at least 1800 mHa capacity with run time of at least 9 hrs. on analogue mode and 11 hrs on digital mode.
10	<b>WRIST SCREEN</b>
	a) Should be made of ABS (Acrylonitrile Butadiene Styrene)
	b) Screen should be TFT or higher, have minimum size of 3 inches with resolution of 320 x 240
	c) Should be supplied with battery of at least 3V 200 mAh capacity with 5V/1000mA charger capable of charging on AC power 110 – 220 V
	d) Weight of the monitor should not exceed 160 grams
	e) Should be capable of operating between temperature range of 0° C to 50°C
	f) Should be supplied with enclosed strap with minimum length of 20 cm.
	g) Should be capable of audio and video output
	h) Should have power consumption of less than 1 watt.
11	<b>ADDITIONAL PARAMETERS</b>
	a) Product should be provided with minimum <b>warranty period of 1 year</b> with scope additional CMC at competitive rates.
	b) Product should be provided with a rugged, heavy duty carrying case which is water resistant and shock proof.
	c) Should have user friendly manual in English
	d) Provision to incorporate any future updates in software
	e) It should be water resistant with IP-67 grading.
	f) Total weight of system to be worn by K9 should be less than 350 gm (mask-150 gm, collar-200gm)
	g) The eqpt should have an operating range of min 300 m in BUA, 500m in open terrain.

**Draft Trial Directives of K9 Vision System**

S/ N	Specifications	Procedure suggested for trial for Board of Officers
1.	<b>MASK</b>	
	a) It should be made out of breathable mesh capable to keep out debris, maximize airflow, and drain quickly for use in water.	To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.
	b) Should have provision of simple back buckle to make it easy to put on or take off.	
	c) Should have adjustable side straps for a secure fit and lateral stability.	
	d) Should have spherical, interchangeable, polycarbonate lenses with rating of at least UV 400 and ANSI (American National Standards Institute) Z87.1.2010 for impact resistance.	OEM certificate to be provided.
	e) Should have durable foam edging of at least 5 mm for comfort.	To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.
	f) Should have elastic segment which allows for full jaw motion while still ensuring a stable fit.	
	g) Should have adjustable tri-glide buckle for a snug custom fit around the muzzle	To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.
	h) Should have dimensions of at least 165mm x 80 mm x 40 mm (Length x Width x Depth) and total weight of 150 gm (max)	
2.	<b>CAMERA</b>	
	a) Front camera should have the following features :- i) Colour and B & W modes	To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of

		the equipment by OEM / Representative of firm.
	ii) Low light mode	
	iii) Capable of providing output with resolution of full HD (1920x1080), HD (1280x720) analogue (704x576)	
	b) Rear camera should have the following features :- i) Colour and B & W modes	To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.
	ii) Low Light mode	
	iii) Capable of providing output with resolution of full HD (1920 x 1080), HD (1280x720), analogue (704 x 576)	
3.	<b>HP (HEARING PIECE)</b>	
	a) Should be of miniature make with minimum dimensions of 22 x 28 mm	To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.
	b) Should be made of flexible and water proof membrane	
	c) Should have minimum impedance rating of 8 $\Omega$ with maximum wattage of 2 watts	OEM certificate to be provided
4.	<b>LEDs</b>	
	a) Should have 3 x high intensity white LED lights and 03 x high intensity infra-red LED lights.	To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.
	b) The LED lights should have minimum brightness of 07 lumens.	OEM certificate to be provided



5.	<b>COLLAR</b>	
	a) The collar should have a curved loop shape	To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.
	b) Collar should be made of flexible and elastic material.	
	c) It should have minimum dimensions of 545 mm (length) and 35mm (width) and max weight of 200 gm	
6.	<b>POUCH</b>	
	a) Should be made of rugged material	To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.
	b) Should have provision of zip fastened cover.	
7.	<b>DOG TRANSMITTER</b>	
	a) Should have provision of operating modes of audio and video transmission.	To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.
	b) Should have 1 x built in recorder with micro SD card of 128 GB maximum capacity.	
	c) Should have radio-frequency output power in the range of 60-250 mW	
	<b>d) Should have maximum dimensions of 50 mm x 40 mm x 12 mm (L x W x D)</b>	
	e) Should be capable of operating between temperature range of 0° C to 50° C	
	f) Should be provided with remote capable of full control over a minimum range of 450m	
8.	<b>RECEIVER</b>	
	a) Should have sensitivity rating of at least 90- dBm	OEM certificate to be provided
	b) Should have built - in recorder with 02 x 32 GB SD cards	
	c) Should be capable of recording time of at least 15 hrs.	
	d) Should have LCD screen of at least 4.5 inches size	

	e) Should have maximum dimensions of 150 mm x 130 mm x 30 mm (L x W x D)	
	f) Should be capable of operating between temperature range of 0° C to 50° C	
	g) Should have internal battery of at least 8Ah capable of charging with supplied external AC/DC converter and DC/DC car converter	
	h) Radio frequency should be in range of 900 – 1400 MHz with bandwidth of 7-8 MHz	
	j) Should have modulation with COFDM (Coded Orthogonal Frequency with Division Multiplexing) of 900 Carriers	
	k) Should have 2 channel stereo audio with band width between 20 Hz to 6 kHz	
	l) Should be at least capable of video standards of HD with minimum resolution of 1280 x 720 and fps of 25.	
	m) Should have facility of data encryption and password	To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.
9	<b>DIGITAL RADIO</b>	
	a) Should have UHF (Ultra High Frequency) frequency range between 400-470 MHz	OEM certificate to be provided
	b) Should have channel capacity of 256 with 16 zones with 16 channels per zone.	
	c) Should have maximum dimensions of 125 mm x 60 mm x 25 mm (L x W x D)	To be checked physically by BOO in the presence of representative of firm.
	d) Weight should be less than 165 grams.	To be checked physically by BOO in the presence of representative of firm.
	e) Should be supplied with battery of at least 1800 mHa capacity with run time of at least 9 hrs. on	OEM certificate to be provided

	analogue mode and 11 hrs on digital mode.	
10	<b>WRIST SCREEN</b>	
	a) Should be made of ABS (Acrylonitrile Butadiene Styrene)	OEM certificate to be provided
	b) Screen should be TFT or higher, have minimum size of 3 inches with resolution of 320 x 240	OEM certificate to be provided
	c) Should be supplied with battery of at least 3V 200 mAh capacity with 5V/1000mA charger capable of charging on AC power 110 – 220 V	OEM certificate to be provided
	d) Weight of the monitor should not exceed 160 grams	To be checked physically by BOO in the presence of representative of firm.
	e) Should be capable of operating between temperature range of 0° C to 50°C	OEM certificate to be provided
	f) Should be supplied with enclosed strap with minimum length of 20 cm.	To be checked physically by BOO in the presence of representative of firm.
	g) Should be capable of audio and video output	
	h) Should have power consumption of less than 1 watt.	OEM certificate to be provided
11	<b>ADDITIONAL PARAMETERS</b>	
	a) Product should be provided with minimum <b>warranty period of 1 year</b> with scope additional CMC at competitive rates.	OEM certificate to be provided
	b) Product should be provided with a rugged, heavy duty carrying case which is water resistant and shock proof.	To be checked physically by BOO in the presence of representative of firm.
	c) Should have user friendly manual in English	To be checked physically by BOO in the presence of representative of firm.
	d) Provision to incorporate any future updates in software	OEM certificate to be provided
	e) It should be water resistant with IP-67 grading.	OEM certificate to be provided
	f) Total weight of system to be worn by K9 should be less than 350 gm (mask-150 gm, collar-200gm)	OEM certificate to be provided
	g) The eqpt should have an operating range of min 300 m in BUA, 500m in open terrain.	OEM certificate to be provided

**Draft Qualitative Requirements of Canine Remote Deployment System (CRDS)**

<b>S/N</b>	<b>Qualitative Requirement</b>
1.	<b>Introduction</b>
	a) Canine Remote Deployment System (CRDS) is K9 mounted article delivered remotely as an "UNDER DOG" attached to the release mechanism
	b) CRDS is very effective in delivering remotely wide range of articles i.e breaching charge, bugging devices, portable jammer, life saving medicines and technical gadgets inside the 'Hot Zone' CRDS is currently used by Special Forces units of US and Canadian Special Forces in various operations.
2.	<b>Utility</b>
	a) CRDS can be utilised to remotely deliver operationally vital equipments / stores like Motorola Batteries (can also be used to deliver wide range of articles i.e breaching charge, bugging devices, portable jammer, life saving medicines and technical gadgets) inside the "Hot Zone".
	b) It proved to be extremely supportive in certain operational situations which are confronted quite often when human intervention is virtually impossible or not recommended in face of extreme threat. CRDS is currently used by Special Forces units of US and Canadian Special Forces in various operations.
3.	<b>Equipment Description</b>
	a) The deployment system should be a combination of release mechanism and a harness to carry supplies during various operation conditions.
	b) The release mechanism should get clipped on the harness.
	c) The release mechanism should come with a battery charger. The same charger should be used to charge the remote.
	d) The remote should be able to release the supplies at a minimum distance of 100 meters.
	e) The setup should come in a strong carrying case.
	f) The battery capacity to release the deployment mechanism should be 400-500 times on a single charge.
	g) The system should work on radio frequency.
	h) The transmission power should be not more than 60mW.
	j) The transmission should be encrypted by 128 bit AES.
4.	<b>Equipment Specifications</b>
	a) Dimension- 30 x 25 x 14 cm (carrying box)

	b) <b>Weight – Should be max upto 800 gm for complete Unit.</b>
	c) Material – Rugged plastic with embedded electronic circuitry or better.
	d) Colour – Black or can be customized as per user needs.
	e) Life – Shelf life – 05 years or more
	f) Battery capacity - 400 – 500 releases on single charge. Battery provided should be Lithium ion battery with <b>5000mAh capacity.</b>
	g) Other features – Dog vest harness with clip and slide unit for attachment of main Unit.
	h) Weight of payload – Weight of the payload should be max 800g.
	j) Warranty period for System – Product should be provided with minimum warranty period of 01 year with scope for additional CMC at competitive rates.
	k) Cover / casing for system – The system should be provided with a rugged, heavy duty cover / casing for protection against damage / fall

**Draft Trial Directive of Canine Remote Deployment System (CRDS)**

<b>S/N</b>	<b>Specification</b>	<b>Procedure suggested for trial for Board of Officers</b>
1.	<p><b>Introduction</b></p> <p>a) Canine Remote Deployment System (CRDS) is K9 mounted article delivered remotely as an "UNDER DOG" attached to the release mechanism</p>	<p>To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.</p>
	<p>b) CRDS is very effective in delivering remotely wide range of articles i.e breaching charge, bugging devices, portable jammer, life saving medicines and technical gadgets inside the 'Hot Zone' CRDS is currently used by Special Forces units of US and Canadian Special Forces in various operations.</p>	<p>To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.</p>
2.	<p><b>Utility</b></p>	
	<p>a) CRDS can be utilised to remotely deliver operationally vital equipments / stores like Motorola Batteries (can also be used to deliver wide range of articles i.e breaching charge, bugging devices, portable jammer, life saving medicines and technical gadgets) inside the "Hot Zone".</p>	<p>To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.</p>
	<p>b) It proved to be extremely supportive in certain operational situations which are confronted quite often when human intervention is virtually impossible or not recommended in face of extreme threat. CRDS is currently used by Special Forces units of US and Canadian Special Forces in various operations.</p>	<p>To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.</p>
3.	<p>Equipment Description</p>	
	<p>a) The deployment system should be a</p>	<p>To be checked physically by BOO in the presence</p>

		conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.
	b) <b>Weight – Should be max upto 800 gm for complete Unit.</b>	To be checked physically by BOO with the help of weighing machine (with least count of 01 gm) by BOO in the presence of representative of firm.
	c) Material – Rugged plastic with embedded electronic circuitry or better.	To be checked physically by BOO in the presence of representative of firm. OEM certificate to be provided.
	d) Colour – Black or can be customized as per user needs.	To be checked physically by BOO in the presence of representative of firm.
	e) Life – Shelf life – 05 years or more	OEM certificate to be provided
	f) Battery capacity - 400 – 500 releases on single charge. Battery provided should be Lithium ion battery with <b>5000mAh capacity.</b>	OEM certificate to be provided
	g) Other features – Dog vest harness with clip and slide unit for attachment of main Unit.	To be checked physically by BOO in the presence of representative of firm. A demonstration will be conducted with its use on K9 to test functionality and operability of the equipment by OEM / Representative of firm.
	h) Weight of payload – Weight of the payload should be max 800g.	To be checked physically by BOO with the help of weighing machine (with least count of 1 gm) by BOO in the presence of representative of firm.
	j) Warranty period for System – Product should be provided with minimum warranty period of 01 year with scope for additional CMC at competitive rates.	OEM certificate to be provided
	k) Cover / casing for system – The system should be provided with a rugged, heavy duty cover / casing for protection against damage / fall	To be checked physically by BOO with the help of weighing machine (with least count of 01 gm) by BOO in the presence of representative of firm.