No. IV-21011/4/2010-Prov-I Government of India Ministry of Home Affairs

26, Man Singh Road, Jaisalmer House, New Delhi, 11.3.2010

То

The DGs:Assam Rifles/BSF/CISF/CRPF/ITBP/NSG/SSB/BPR&D

Subject: - QRs/Technical Specifications for the security related equipments -regarding

The QRs/Technical Specifications for the following security related equipments have been accepted and approved by the Competent Authority in MHA;-

Combat/Military Free Fall Parachute System

- Digital Target System Under Ground Virtual Shooting Range(UVSR) (ii)
- Rope Ladder with Through Line (iii)
- (iv) Tactical Vest
- Digital Camera(General Purpose) (v)
- Eye Ball Video
- (vi) AD2V/Digital Night Vision Goggle/Device (Basic Version)
 (vii) AD2V/Digital Night Vision Goggle/Device (Full Version)
 (ix) Holographic Reflex Sight/Reflex Sight with trail Directives
- All Purpose/High Intensity Protected Vehicle/Special Purpose Vehicle
- The trial directives for the 5.56mm Cabine has also been approved by the Competent Authority in MHA
- Henceforth, all the CPMFs should procure the above items required by them strictly as per the laid down Technical Specifications/QRs. TIJ3/10

(R.S.Sharma) Director (Prov)

Copy to:-

DD(Procurement),MHA

Copy for information to:-

PS to JS(PM),MHA

QRs OF EYE BALL VIDEO

<u>General</u>

- Sensor: the eyeball video sensor should have following features
 - (a) It should have audio and video syl capacity.
 - (b) Should be rugged enough to survive a "throw" or "roll" of more than50 mtrs with landings in rough terrain, concrecte, piles of debris, or through windows,
 - (c) 360° audio and video coverage,
 - (d) Continuous operation upto minimum 2 hrs.
 - (e) Night vision capability.
 - (f) Transmission range of 100 mtrs outdoors and 25 mtrs indoors.
- <u>Receiver</u> The portable Remote Display Unit should have a TFT display of minimum six inches.
- 3. Operational Capability The system should be capable of operating continuously for 24 hours. The vendor should include all accessories required for 24 hours continuous operation.

4. <u>Technical Specification</u>

Ser No	Features	Specifications
(a)	Image sensor	
	(i) Resolution	More than 450 TV Lines
	(ii) Frame rate	Live Video minimum 25 fps
	(iii) FOV	More than 50° Horizontal and 40°
	<u> </u>	Vertical
	(iv) Shutter operation	Automatic
(b)	Audio Microphone	
	(i) Audio mike detection field	Omni directional
	(ii) Sensitivity of audio mike	Should detect human voice from 5
	l	m or more.
	(iii) Squelch	Automatic squelch to decrease noise
(c)	Video and Audio Transmission	
	(i) Indoor transmission dist	More than 25 m
	(ii) Outdoor transmission dist	More than 100 m
	(iii) Freq range	2.4 GHz
(d)	Illumination	
	(i) Illumination wavelength	812 nm by Near-Infrared LED
	(ii) Ulumination distance	Up to 8 m or more
	(iii) Light sensor	Automatic operation of illuminating
		light depending on light condition of
	<u> </u>	target area.

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Ser No	Features	Specifications	
(c)	Rotation Motor		
	(i) Speed of rotation motor	Minimum 4 RPM	
	(ii) Sound of motor	Quiet operation	
(f)	Camera	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
	(i) Camera Range of sensor eye ball video	Up to 20 m or more	
	(ii) Rotation of sensor camera	Controlled by user at least 4 RPM providing a full 360° view in 15 sec.	
	(iii) Pan and Zoom	Pan 360, 2:1 Digital Zoom or more	
(g)	Mechanical specifications		
	(i) Dimensions	90 mm Diameter or less	
	(ii) Weight	Less than 600 gms	
_	(iii) Stabilization and motion	Quick self stabilization	
 (h)	Power Source		
_	(i) Rechargeable battery	Lithium ion battery	
	(ii) Battery operation capacity	Eyeball : Minimum 2 Hrs	
<u> </u>		PDU : Minimum 3 Hrs	
	(iii) Battery Charger	Should be same for PDU and Eyeball	
	(iv) Battery Charging time	Less than 2 hours	
	(v) Battery Charger input	220V, 50 Hz AC	
	(vi) Remote Display Unit with system software	The portable Remote Display Unit should have a TFT display of minimum six inches along with the system software.	
(j)	Night operation capability	Should provide vision in pitch dark room. IR should not visible to human eye.	
(k)	Video Motion Detection	Advanced	
(1)	Output connections	S – Vidco/DV and earphone connector for audio	
(==)	1 P Standard	- IP- 67	
(m) (n)	Accessories: The following accessories to be supplied with each system:		

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<u>Ser</u> No	Accessories	Quantity Per
(i)	Observation Vit completes To provide and the control of	System
177	Observation Kit complete: - To provide capability for a	10
	Commander to view and listen to the output from Eyeball on any standard PC/Laptop.	
GIA	Deployment Kit complete	· L
(ii) (iii) -	1	01
(111)	Laptop with following specifications	01
	(aa) Microprocessor 2.60 GHz Intel@ Core 2 Extreme Processor	
	X7800 or better.	i
	(ab) Microprocessor Cache 4 MB Level 2 cache or better.	
	(ac) Memory – minimum 4 GB DDR2 or better	!
	(ad) Video Graphics compatible with High Definition	
	(ae) Hard Disk - More than 500 GB	
	(af) Multimedia drive with DVD-R /RW with blue ray	
	compatibility.	
	(ag) Wireless connectivity/Bluetooth	1
	(ah) Network card	
	(aj) PCI Express Card slots	
	(ak) External ports : 4-6 USB 2.0, HDMl. Sata, VGA, RJ 45, S.	1
	video capture. IEEE-1394	
	(al) Latest Windows Operating System.	١.
iv)	Battery Chargers	·
(14)	Educity Chargers	As per
		requirement
		for 24 hours
		continuous
	<u></u>	operation
(v) 	Spare batteries	As per
		requirement
		for 24 hours
		continuous
		operation
(xxiv)	Carrying case	T · · -
	(a) Ruggedised carrying case for quickly transporting the entire kit.	01
	(b) A single soft backpack type carrying case housing the	01
	complete equipment and its accessories less the pole. A soldier) 01
	should be able to carry the equipment on his back conviniently. It	Ì
	I SHOULD BE ABLE TO CALLY THE EQUIDINENT ON HIS DRCK CONVINIENTLY. IT	1

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Misc Aspects

- 5. <u>Literature</u> Operating and Technical literature for each discrete components of system should be in English language.
- 6. <u>Demonstration and Training</u> Demonstration of the complete system with adequate qty of equipments to be given 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

(NPS Aulakh) 26/2/10 Director/General, NSG