No. IV-20011/23/2009-Prov.I Government of India Ministry of Home Affairs

26, Man Singh Road, Jaisalmer House, New Delhi, 10.7.2009

To

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

Subject:- QRs/Technical Specifications of the Mobile Surveillance Vehicle (MSV)

The QRs/ Technical Specifications of the Mobile Surveillance Vehicle (MSV) as per Annexure, has been accepted by the Competent Authority in MHA.

2. Henceforth, all the CPMFs should procure the above items required by them strictly as per the laid down Technical Specifications/QRs.

10/7/09.

(R.S.Sharma) Director (Prov)

Copy to:-

DD(Procurement),MHA

Copy for information to:-

PS to JS(PM),MHA

Larvel.

QRs/specifications of Mobile Surveillance Vehicle (MSV)

Real time capability to detect, recognize, and Reticule based pin-pointing of multiple target locations simultaneously during scanning of selected Sensors/Panoramas in the Intruder Alarm System. 2	The	system should have the following features/capabilities:
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viii) Manual & Auto Focus throughout the entire zoom ix) Graphics over Video.		b) Recognition Range - 3 Km (Min)
1x) Graphics over Video.		viii) Manual & Auto Focus throughout the entire zoom
	-	ix) Graphics over Video.

1.5	N. L. C.
17	Night Camera should have
	i) Video Format CCIR/PAL
	ii) Sensor Sensitivity of 3-5 or 8-12 μm wavelength
	iii) Range for human target: -
	a) Detection Range - 6 Km (Min)
	b) Recognition Range - 3 Km (Min)
	iv) Optical parameters with
İ	a) Zooming facility of minimum X 8 from 20 to 250 mm FI (Min)
	b) Electronic Zoom of 2x (Min)
	c) Wide FoV 12.5° x 10° (Min)
	d) Narrow FoV 1.25° x 1.5° (Max)
	v) Image enhancement feature.
	vi) Automatic Gain Control (AGC).
	vii) Manual & Auto Focus throughout the entire zoom.
	viii)Initialization time should be less than 8 minutes. Ready time from Standby mode
	to on mode should be less than 1 minute.
18	
10	Eye Safe Laser Range Finder (LRF) should have
	Laser Classification - Class-1. Should be eye safe under all conditions.
	Range - 80 mtr (Min) to not less than 20 km-(Vehicle size 4 x 2.3m,
	reflectivity 30%; visibility 23 Kms; Measured Range 6 Km (minimum)
19	Pan & Tilt Sensor Platform should have
	Vertical movement plus + 60° to -25°
	Horizontal movement – Should cover 360°
20	Intruder Detection System (Video Management Software):-
	Video Management Software (VMS) should have the following features:-
	i) VMS should automatically get activated when the EO System is in scanning
	mode or the camera is in scanning mode with a provision for Manual selection of
	either Day or night camera or both for scanning in user-defined positions, user-
	defined Sectors (up to 180°) and the panorama (360°). There should be an additional
	provision to view the day and night camera videos simultaneously on the same screen
	during Surveillance as well as Scanning mode.
	ii) For the E/O payload, there should be a provision to adjust the selectable rate
	of scanning in a continuous way, from slow through medium to fast.
	iii) The system should give audio Alarm and simultaneously reticule based pin pointing of
	multiple targets at the recognition ranges, which are separately specified for day and night
	cameras during scanning. False alarm rate for Day as well as Night camera detection
	should not be more than 5%.
	iv) Auto tracking of detected target should be provided when required manually
	by simply selecting the potential target for auto tracking among the multiple targets.
	Recording of the detection should be activated immediately with the detection of
	target during scanning mode and the system should be capable to display history of the
	area in sequences of last few frames for better orientation of the intruder's motion, his
	direction and typical behavior.
	v) Auto Northing of the system should be activated during initialization process with the
	help of In-built WAAS enabled Global Positioning System and Digital Magnetic
	Compass. The position of the detected target should be shown in user-defined co-
	ordinate system by the software either in Latitude/Longitude or in Indian Grid Reference
	System.
	vi) There should be a provision of Storing, retrieval and deletion of parts of the recorded
	video as per the user-requirement.
21	Pneumatic/Electrically/Hydraulic Operated Sensor Mast System: -
- 1.	i) The mast system should be fitted on to the vehicle for providing elevation to the
`	, and the same of the same of the profit that the same of the same
	day and night cameras fitted on Pan & Tilt based platform. The mast should be
	either Pneumatic or electrically or hydraulic operated. The mast should provide a
	minimum elevation of 5½ mtr from the ground and should be unguided. Height of
	the mast in retracted position should not be more than 2.5 mtr from the ground. Mast
i	should be external to the vehicle body.
l	ii) The control unit should consist of a Keyboard and a joystick. It should be able to
	control all functionalities of the integrated system. The LCD display panel should be of
	17" size for the workstation.

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22	Radio Communication System:	
	Appropriate VHF Radio communication equipment hald in the F	
	1 Motorolo CN (200 C) C C	
	25 Watt in case of 13 SF)	
23	Vehicle requirement: -	
	i) A medium vehicle with cross-country mobility with 4-wheel drive.	ĺ
	ii) Vehicle and mounted equipments should be of camouflage colour.	I
	iii) Should have cabin of comfortable size.	١
	iv) Fuel tank capacity of minimum 90 liter (diesel).	ĺ
	v) Power – minimum 52.5 KW at range of 2500 to 3000 RPM.	
	vi) Gradability: Minimum 30°	1
	vii) Gear box: Minimum 4 forward 1 reverse- in 4x4 mode	
	viii) Steering : Power steering	
	ix) Ground Clearance-minimum 210 mm	
	x) Control panel and workstation should be just behind the driver's seat.	
	xi) Should have provision for sitting of minimum 8 persons including the driver. Two	
	The state of the s	
	And I wo lotted to this of size of Y 2 feet should be provided from the	
	1 " " " doors one cach on the side of the driver and co driver?" and a last the	
	xiv)Industrial tinted glass panel windows of size 1' x 1' sliding type three on each side	
	and m once situate be builded	
	xv) Maximum boot space is to be provided in the under holls, and active of	
	AVII)A Shell Diesel Gen Set of minimum 7.5 KVA for manager of a significant state of the state o	
	The same of the state of the same of the s	
	provided with identity of easy mounting and dismounting with first tools consider the state of t	
	xviii)An additional fuel tank of 50-liter capacity for Gen set should be provided	
•	xix) Minimum four cupboards of size 2' x 1' with lock and key should be	
	xx) Industrial type of ladder in the back of the vehicle should be greated to get	
:	Transmitteriance of monney entirements	
	XXI) Interior of the cabin should be aesthetic looking and some fort-like	
	AAII) I HE VEHICLE SHOULD be air-conditioned with uniform and the second second	
	The control of the co	
	The state of the s	
	XXIII) 4 hydraulic tacks to be provided for stabilization, and to make a	
	To say to mance system when venicle is steady	
	xxiv) Carrier should be provided on the roof of the vehicle	
	AAV) Lightening protection should be provided	
	XXVI) Suspension System should be suitable for sophisticated on beauty	
	And I stability to drive with full payload on a gradient of minimum 200 1 1:1 1	
1		
	xxviii)CMVR/approval in case for registration with civil RTO/ in case of foreign vehicle	
L	registration of the concerned country.	