

F/No- 27/1383/2015/TPT/BSF/MHA-Prov-I -1792  
Bharat Sarkar/Government of India  
Griha Mantralaya/Ministry of Home Affairs  
PM Division/Prov.I Desk

26, Man Singh Road, Jaisalmer House  
New Delhi, Dated 05 November, 2016

To,

DsG: AR (through LOAR), BSF, CISF, CRPF, ITBP, SSB, NSG & BPR&D.

**Subject: QRs and Trial Directive of Mini All Terrain Vehicle.**

The QRs and Trial Directives in respect of Mini All Terrain Vehicle as per Annexure-'A' and 'B' have been accepted by the Competent Authority in MHA.

2. The CAPFs concerned will be accountable for correctness of the QRs/Trial Directives.
3. Henceforth, all the CAPFs should procure the above item required by them strictly as per the laid down Technical Specifications/QRs.

Yours faithfully,

Encl: As above

(Ritesh Kumar)

Under Secretary to the Govt of India

Tel: 23381278

Copy forwarded for necessary action to :-

✓ The Section Officer (IT), MHA: It is requested to host the QRs and Trial Directives (soft copy attached) on the MHA website under the page of Organizational Set up- Police Modernization Division- Qualitative Requirement under vehicle equipment.

( V. Devadas)

Section Officer (Prov-I)

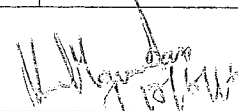
Copy to: DDG (Procurement), MHA

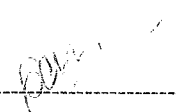





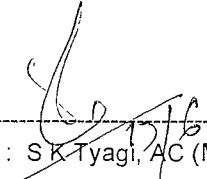
S.NO	SPECIFICATION	RECOMMENDED QRs
<b>12. ELECTRICAL SYSTEM</b>		
		(i) 12 V or more. (ii) All the wire/fuses shall be water proof to avoid short circuiting.
<b>13. FUEL TANK</b>		
	Capacity (Ltrs)	As per the design of the manufacturer commensurating the range mentioned at Srl No. 5(iv).
<b>14. WATER EXPULSION SYSTEM</b>		
	Bilge pump	Provision of Bilge pumps should be made for expulsion of water as an additional security feature while ATV operate in water logged terrain and amphibious mode.
<b>15. INSTRUMENT PANEL</b>		
	<b>INSTRUMENTS</b>	i) Odometer, speedometer, oil temperature gauge, engine temperature gauge, fuel gauge, running - hour meter, voltmeter, electric horn. ii) GPS of Garmin, Tom Tom, Blackberry, or any other internationally reputed make.
<b>16. PAINTING</b>		
	Finishing colour	As per the requirements of the user, capable to control corrosion, non-reflecting, powder coated on whole body including under carriage.

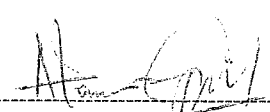
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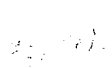
  
PO - BSF : Kunal Mazumdar, DIG

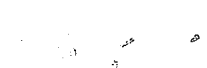
  
M-1 CRPF : Sahjeev Singh, DC.


  
M-2 CISF : V K Yadav, AC

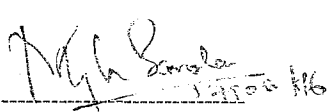
  
M-3 ITBP : S K Tyagi, AC (MTO)

  
M-4 SSB: Ajitha Kumar, Sr. IOA


  
M-5 NSG: Shanti Swaroop,  
Team Commander.

  
M-6 BPR&D : Sanjay Sharma,  
PSO(W)

  
Co-opted M-1 BSF : Jasbir Singh, DC

  
Co-opted M -2 BSF : Manoj Kumar  
Barala,, DC

  
**APPROVED / NOT APPROVED**

  
(K. K. SHARMA) IPS  
DG BSA

**TRIAL DIRECTIVES FOR TRIAL OF MINI ATV (ALL TERRAIN VEHICLES)**

Date of Trial : \_\_\_\_\_  
 Time of Trial : \_\_\_\_\_  
 Place of Trial : \_\_\_\_\_  
 GR of Trial Area: \_\_\_\_\_

Temperature : \_\_\_\_\_  
 Altitude : \_\_\_\_\_  
 Weather condition: \_\_\_\_\_

(Clear/cloudy/partially cloudy/hot and humid/rainy/foggy and humid/soft snow or hard ice)

**1. DESCRIPTION**

S.NO	SPECIFICATION	PARAMETER	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/DESIRED
a)	Capability	i) ATV capable to operate in all types of terrain consisting of water logged, deep marshy, and saline and areas of Rann of Kutch, rugged cross country terrain and metalled road with full payload without being struck. ii) The ATV should also have amphibious capability.	The ATV shall be physically operated/ employed with full payload in the marshy, sandy, cross country salty water logged terrain, water bodies/ channels and snow bound mountainous areas.	The ATV should negotiate all type of terrains water channels.

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**2. GENERAL DATA**

S.NO	SPECIFICATION	PARAMETER	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/DESIRED
a)	<b>DIMENSIONS</b>	The dimensions should be spacious enough to comfortably accommodate minimum 06 persons (including driver) with on man arms/equipment.	06 persons with light arms, Amn and equipment shall be made to sit inside the ATV.	The dimensions should accommodate all the persons comfortably.
b)	<b>PAYLOAD</b>	Not less than 550 Kgs excluding the weight of accessories and attachments	Payload minimum 550 Kgs shall be loaded in the ATV in the form of men or material. The ATV shall be further operated on Marshy / cross country terrain upto 50 KMs at a stretch.	The ATV should be able to carry the specified load comfortably throughout the specified distance.

**3. STRUCTURE**

	The lower frame/chassis should be made of corrosion resistant, metal or semi metal, non deteriorating material, which can withstand the highly corrosive mud/water of Rann of Kutch.	Certifications from accredited Lab shall be provided by the Firm.	It should meet the specified QRs.
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**4. BODY DESCRIPTION**

	<b>i) NOS OF SEATS</b>	06 including driver.	All seats shall be physically checked in number and comfort.	Seats Should meet the specified QRs and should be comfortable.
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*(Handwritten signatures and initials are present over the lines, including '17/6' and '17/6/16')*

S.NO	SPECIFICATION	PARAMETER	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/DESIRED
	<b>ii) DOORS</b>	As per the design of the manufacturer facilitating easy entry and exit of troops with small Arms, Amn& equipment from all doors.	All the doors shall be physically checked by making persons equipped with SmallArms & Equipment to board and de-board from all the doors.	The person should be able to board and de-board easily from the doors.
	<b>iii) Overhead Cover</b>	Permanent Saloon type cover/convertible top shall be provided to protect the occupants from heat and dust/water	Shall be physically checked for utility and condition.	It should meet the required parameter.
	<b>iv) Heat Insulation</b>	Provision of Heat insulation between the seating area and engine should be made	While running the ATV the heat should not be radiated on the occupants.	It should meet the QR.

### 5. PERFORMANCE

i) Speed range on metaled road (km/h)	Not less than 24 Kmph.	The ATV shall be physically driven on metaled road with full load.	It should attain any speed upto 24 Kmph
ii) Cross country speed range (km/h)	Not less than 20 Kmph.	The ATV shall be physically driven in cross country/ Marshy terrain with full load.	It should attain any speed upto 20 Kmph

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S.NO	SPECIFICATION	PARAMETER	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/DESIRED
	iii) Swimming speed range(km/h)(in amphibious mode)	Not less than 4 Kmph.	The ATV shall be physically taken into a deep water channel with full load and will be made to swim upto a distance of 05 KM.	While swimming, the ATV should attain the speed upto 05 KM.
	iv) Range (km)	Should be able to operate, upto Minimum 150 km without refueling on marshy area.	i) The fuel tank of the ATVs shall be filled completely and ATV will be driven on metaled road upto a distance of 50 KM. The full range shall be calculated taking into consideration the fuel consumed to cover a distance of 50 KM.	The ATV with full tank should be able to cover a distance of 150 KM without refueling.
	v) Gradient	Should be capable to negotiate minimum 45 degree slope in forward and reverse gear with full pay load in all type of terrain with full payload.	The ATV shall be physically made to negotiate a slope of 45 degree in gradient.	It should negotiate the slope easily.
	vi) Side slope	Should be capable to negotiate minimum 15 degree upto minimum 20 meters in one stretch in all type of terrain mentioned at Srl 1(a)	The ATV shall be physically operated on terrain having side slope of minimum 15 degree upto 20 meter in one stretch.	It should negotiate the slope easily.

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S.NO	SPECIFICATION	PARAMETER	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/DESIRED
	vii) Vertical obstacle (mm)	Should be capable to negotiate Minimum 500 mm vertical obstruction of any type.	The ATV shall be physically made to cross any type vertical obstacle of minimum 500 mm.	It should cross the vertical obstacle easily.
	viii) Trench crossing (mm)	Should be capable to negotiate Minimum 1000 mm wide trench.	The ATV shall be physically made to cross a horizontal trench of minimum 1000 mm.	It should cross the trench easily.
	ix) Operating Temperature (CERTIFIED Main components)	-05 degree C to + 55 degree C	Certifications from accredited Lab shall be provided by the Firm.	It should be as per the specified QRs.

6. ENGINE

i) Type	Gasoline/ diesel engine of any reputed make conforming to ARAI/ BIS/BS/ DIN /SAE or any other internationally recognized make.	OEM shall provide the authenticated certificate with regard to engine make, type and other vital engine parameters.	It should meet the specified QRs.
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M-5 *[Signature]* M-6 *[Signature]* Co-opted M-1 *[Signature]* Co-opted M-2 *[Signature]*

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S.NO	SPECIFICATION	PARAMETER	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/DESIRED
	ii) Fuel	Diesel – Compatible with BS-III or Higher norms and facility to upgrade to higher version.  Indian Lubricants conforming to grade specification of the manufacturer.	The fuel tank of ATV shall be topped with diesel BS-III or higher grade diesel and vehicle will be driven Minimum 100 Km.	The vehicle should be able to operate smoothly.
	iii) Brake Horse power (BHP)	The engine should be able to generate adequate power to negotiate all types of terrains mentioned at Srl-1 without being struck with full payload specified at Srl 2-b	OEM shall provide the authenticated certificate with regard to engine Horse Power.	As per the QRs.

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M-5 [Signature] M-6 [Signature] Co-opted M-1 [Signature] 15/6/16 Co-opted M-2 [Signature] 15/6/16

**7. TRANSMISSION**

S.NO	SPECIFICATION	PARAMETER	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/DESIRED
	Type	Should have Automatic/manual transmission with high, low, reverse, forward and neutral selector with transfer case or any other suitable means of power transmission to meet the speed requirement as per QRs under different load & road surface condition.	i) OEM to provide certificate regarding the transmission system of the ATV. The ATV shall also be run up to a distance of Minimum 50 KM in all gears including reverse gear and checked for smooth engagement and disengagement. ii) Transfer case shall be engaged & disengage physically.	All the gears & transfer case should engage and dis-engage smoothly.

**8. BRAKE SYSTEM**

Type	Hydraulic assisted, Mechanical or any other improved version service brake.  Parking brake should be provided	The OEM shall provide certificate regarding make and type of brake system. The brake shall be applied on moving vehicle.  Parking brake shall be applied on ATVs parked on a ascending and descending slope of 20 degree.	It should meet the specified QRs.  Application of the brake by drive should be effortless and the vehicle should stop properly.  The parking brake should be effective enough to stop the vehicle on slopes.
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**9. STEERING SYSTEM**

i) Configuration	Handle bar or Steering wheel or Lever steering easy to operate.	To be checked physically by turning the ATV right and left while driving.	It should be able to turn the ATV on desired side.
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**10. TRACKS**

S.NO	SPECIFICATION	PARAMETER	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/DESIRED
	i) Type	(i) Tracked/Wheeled version made of rubber or any other improved composite material.  (ii) Mud flaps should be provided.	OEM to furnish the certificate regarding make and type and material used for the track.	It should meet the required QRs.

**11. SUSPENSION SYSTEM**

	Type	Independent/ hydraulic/ air or suitable version suspension system to sustain the rigors of the operational area.	OEM shall provide certificate regarding the make and type of suspension system.  The ATV shall be driven in all type of terrains to check the effectiveness of suspension system/shock-absorbers.	It should meet the QRs.  The suspension system should be effective enough to sustain the rigors of the terrain.
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**12. ELECTRICAL SYSTEM**

	i) 12 V or more. ii) All the wire/fuses shall be water proof to avoid short circuiting.	OEM shall furnish certificate regarding electrical system.  All wires /fuses shall be physically checked for serviceability and effectiveness.	It should be 12 volt.  Should be in excellent working condition.
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M-5 \_\_\_\_\_ M-6 \_\_\_\_\_ Co-opted M-1 \_\_\_\_\_ Co-opted M-2 \_\_\_\_\_

13. FUEL TANK

S.NO	SPECIFICATION	PARAMETER	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/DESIRED
	Capacity (Ltrs)	As per the design of the manufacturer commensurating the range..	OEM to provide certificate.	It should meet the QRs.

14. WATER EXPULSION SYSTEM

	Bilge pump	Provision of Bilge pumps should be made for expulsion of water as an additional security feature while ATV operate in water logged terrain and amphibious mode.	The floor of the ATV shall be filled with water. The bilge pump shall be turned on.	The bilge pumps should be able to expel the water quickly.
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M-5 *[Signature]* M-6 *[Signature]* Co-opted M-1 *[Signature]* 17/6/16 Co-opted M-2 *[Signature]* 17/6/16

**15. INSTRUMENT PANEL**

S.NO	SPECIFICATION	PARAMETER	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/DESIRED
	<b>INSTRUMENTS</b>	i) Odometer, speedometer, oil temperature gauge, engine temperature gauge running - hour meter, voltmeter, electric horn.  ii) GPS of Garmin, Tom Tom, Blackberry, Or any other internationally reputed make.	i) All the instruments shall be physically checked for their accurate serviceability.  ii) The GPS shall be checked for its functioning as per Indian co-ordinates.	All the instruments should be in excellent functional condition.

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## 16. PAINTING

S.NO	SPECIFICATION	PARAMETER	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/DESIRED
	Finishing colour	As per the requirements of the user, capable to control corrosion, non-reflecting, powder coated on whole body including under carriage.	OEM shall provide a certificate with respect to corrosion.  The painting (including undercarriage) shall be physically checked.	It should meet the QRs.

*Kunal Mazumdar*  
17/6/16  
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PO - BSF : Kunal Mazumdar, DIG

*Sanjeev Singh*  
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M-1 CRPF : Sanjeev Singh, DC.

*V K Yadav*  
-----  
M-2 CISF : V K Yadav, AC

*S K Tyagi*  
17/6  
-----  
M-3 ITBP : S K Tyagi, AC (MTO)

*Ajitha Kumar*  
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M-4 SSB : Ajitha Kumar, Sr.IOA

*Shanti Swaroop*  
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M-5 NSG : Shanti Swaroop,  
Team Commander

*Sanjay Sharma*  
-----  
M-6 BPR&D : Sanjay Sharma, PSO(W)

*Jasbir Singh*  
-----  
Co-opted M-1 BSF : Jasbir Singh, DC

*Manoj Kumar Barala*  
17/6/16  
-----  
Co-opted M-2 BSF : Manoj Kumar Barala,, DC

*K. K. Sharma*  
-----  
APPROVED / NOT APPROVED

*K. K. SHARMA*  
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(K. K. SHARMA) IPS

DG, BSF