

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

To

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

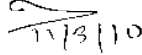
Subject: - QRs/Technical Specifications for the security related equipments -regarding

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

- (i) Combat/Military Free Fall Parachute System
- (ii) Digital Target System Under Ground Virtual Shooting Range(UVSR)
- (iii) Rope Ladder with Through Line
- (iv) Tactical Vest
- (v) Digital Camera(General Purpose)
- (vi) Eye Ball Video
- (vii) AD2V/Digital Night Vision Goggle/Device (Basic Version)
- (viii) AD2V/Digital Night Vision Goggle/Device (Full Version)
- (ix) Holographic Reflex Sight/Reflex Sight with trail Directives
- (x) All Purpose/High Intensity Protected Vehicle/Special Purpose Vehicle

2. The trial directives for the 5.56mm Cabine has also been approved by the Competent Authority in MHA

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

  
(R.S.Sharma)  
Director (Prov)

Copy to:-

DD(Procurement),MHA

Copy for information to:-

PS to JS(PM),MHA

**QRs OF COMBAT/MILITARY FREE FALL PARACHUTE SYSTEMS**

**GENERAL POINTS**

1. The Parachute system must comprise the Parachute set (RAM air), safety devices, altimeter, goggle, helmet and Parachute carrying bags.
2. Complete Parachute set (Main, Reserve and Harness container) should be from one renowned Parachute manufacturer of International Repute. Main and Reserve Parachute must be of same size with similar performance. Three deployment modes are required – static line, handle pull and throw away.
3. Fully adjustable five or more point harness with customized hardware for weapon, oxygen and equipment attachment rings to suit jumpers of all sizes.
4. Parachutes should be latest category and from current production to be put for multi purpose use from basic training to combat jumps in operations.
5. All parachutes should have certificate of quality conformity form Original Equipment manufacturer.
6. Parachutes should be procured with repair and spares parts provisioning for 5 years.
7. Parachutes should have life of minimum ten years & five hundred jumps.

**PHYSICAL CHARACTERISTICS**

1. Number of cells	:	09/07
2. Span	:	23 feet to 29.2 feet.
3. Chord	:	11 feet to 12 feet.
4. Surface Area	:	200 Sqft to 300 Sqft
5. Aspect Ratio	:	Not less than 2:1
6. Packing	:	Rear mounted Tandem Packing
7. Harness	:	Three Point split harness
8. Weight of Parachute	:	Should not exceed 20 Kgs.
9. Colour of Canopy	:	Sky Blue, OG Grey, Camouflage.
10. Colour of Harness	:	Preferable camouflage/dark drab.

*De*

*24/2/10*

*Rush - Wgdr 24 Feb 10*

*Harup 21/02*

*24/2/10*

*24/2/10*

**PERFORMANCE & TECHNICAL DATA**

1.	Development speed	:	130 Knots or above
2.	Exit Weight	:	150 kgs and above
3.	Jump Altitude HALO/HAHO	:	30000 feet/ 20000 feet or above.
4.	Minimum deployment height	:	2500 feet AGL
5.	Weight of assembly	:	Maximum 20 Kgs
6.	Glide ratio	:	Minimum 3:1 or above.
7.	Opening force	:	Minimum 5 G's
8.	Rate of descent (full flight)	:	10-15 feet per second.
9.	Ground speed (full flight)	:	30-50 KM per hours or above.
10.	Canopy type	:	Square (ram-air)
11.	Static line Option	:	Up to 150 Knots
12.	Equipment attachments	:	Customized for O <sub>2</sub> , drop bag & weapons.
13.	Hardware	:	U.S. Mil Specs Forged Cadmium Plated Steel or equivalent quality. F 111 0-3 CFM Nylon or ZPO
14.	Canopy Fabric	:	Nylon 6.6 1000 denier Cordura.
15.	Container Fabric	:	U.S. Mil Specs Mil-T-5038 Type-3 All Reinforcing and line attachment type.
16.	Webbing	:	U.S. Mil Specs Mil-W-4088 Type -7 & Type-8.
17.	Suspension Line	:	275 Kgs (600 Lb) and 410 Kgs (900 Lb) Polyester (Dacron) Multi purpose Tactical Assembly with similar Main and Reserve canopies. Suitable for Static line development and free fall mode (HALO/HAHO) for aircraft speed 60-150 Knots. Customized equipment attachment options for personal weapons, drop bag, Oxygen. Must be compatible to mount Automatic Opening Device like Cypress and AR-2.
18.	General	:	

*21*

*h-10*

*24/2/10*

*R. M. ...  
24 Feb 10*

*24 Feb 10*

*24/2/10*

*24/10*

60

SAFETY DEVICES

AOD ON MAIN

1. Should be semi automatic mechanical system.
2. Should have multiple modes to function with time and height combination.
3. Should function up to 8000m AMSL.
4. Should function in the ambient temperature between -60°C - +60°C.
5. Should display the time and height separately on the window of instrument.
6. Should be light weight and not to exceed the weight up to 1 Kg.

AAD FOR RESERVE

1. Should be light weight.
2. Should pack inside the reserve container.
3. Should have proven track record of safety and operations for at least ten years.
4. Should have the display unit visible and available for adjustment/operation.
5. Should be able to operate at any DZ elevation.
6. Should have the Electronic battery operated system.
7. Should have the minimum operational life of 10 years.
8. Should have total operational Accuracy and reliability.
9. Should offer the choice of selection between one pin and two pin containers.
10. Should activate between 750-1200 feet above DZ if vertical speed exceeds 29 mtrs.

ALTIMETER

1. Should be an Analogue altimeter dial with digital accuracy.
2. Should have all readings in feet mode.
3. Should have operating range of altitude from -3000 ft to + 18000 ft AGL.
4. Should have Day and Night use.
5. Should have Electronic Slid State mechanism for lighting.
6. Should have the dial to read minimum 12000 ft in one revolution.
7. Should have Easy to read over a wide viewing angle.
8. Should have the calibration of every 1000 ft from 0 to 12000 ft reading.
9. Should have marking for 250 ft in every 1000 ft marking scale.
10. Should have operating temperature range of minimum -20 to + 50 degree centigrade.
11. Should be compact with hand mount and also suitable for chest mount.
12. Should have maximum weight of 100gms without accessories.
13. Should have the provision for PC interface to download jump date.
14. Should have negative offset provision.
15. Should have in built illumination through electro luminous plate.
16. Should have replaceable batteries with a minimum battery life of 2 years.
17. Should have glass/lens which is scratch proof and antiglare.

*de*  
*spk*  
*24/2/10*  
*B. Kumar*  
*24 Feb 10*  
*29/10*  
*24/2/10*  
*24/2/10*

**GOGGLES FREE FALL**

1. Should be designed for Military Free fall.
2. Should be light weight.
3. Should have the provision to change of glass/lenses with buttons.
4. Should have rubberized body with adjustable strap.
5. Should have minimum two colour lenses.
6. Should be above to fit comfortable with military helmet
7. Should have the anti fog vent.
8. Should have able to view in wide angle.

**HELMET**

1. Should be designed for Military Free fall.
2. Should be light weight.
3. Should have the provision for oxygen attachment.
4. Should have inbuilt visor.

**OPERATION AND MAINTENANCE**

1. The system should be capable of functioning under all operational conditions.
2. The Parachute should be easy to pack and capable of being packed by the users themselves.
3. The system should be easy to repair and individual parts easy to replace in India.
4. The supplier should provide packing manual and should provide training on packing of both Main and Reserve Parachute with necessary certification.
5. Technical and Maintenance Manual of all the components such as canopies and safety devices. The first two servicing of the Automatic Activation Devices should be provided by the OEM free of cost.

29/2/10  
 24 Feb 10  
 24/2/10  
 26/2  
 Approved/Not approved  
 NPS Aulakh  
 Director General, NSG