

QRs of POINT TO MULTIPOINT COMMUNICATION USING AEROSTAT

S. N	Parameters/ Specifications	
1	Point to multipoint communication system using Aerostat should consist of the following	
1.1	Aerostat balloon	
1.2	Inflation & Mooring System	
1.3	Ground control station	
1.4	Day & Night camera payload or Integrated camera payload	
1.5	Digital VHF Repeater	
1.6	Airborne package equipment	
1.7	Portable generator	
1.8	Lifting gas containers	
2. Aerostat Balloon Characteristics		
2.1	Role	Seamless surveillance and detection during day and night, high altitude digital VHF repeater for enhancing communication range
2.2	Balloon Diameter (Size)	19 feet or more
2.3	Payloads carrying capability	Should have capability to carry digital VHF repeater with antenna and Day & Night camera payload or Integrated camera payload at the same time
2.4	Payload capacity	At least 18 kgs or more
2.5	Endurance	72 hours or more with all payloads at Mean Sea Level
2.6	Operating Altitude	300m Above Ground Level(AGL) or more
2.7	Launch Altitude	2500m Above Mean Sea Level (AMSL) or more
2.8	Operating Wind Conditions	Must be able to operate in wind speed of upto 40 knots /74 kmph
3. Mooring Station Characteristics		
3.1	Mounting type	Belly mounting
3.2	Manning	Crew of less than 4 members



 Su ^{Mr}      

 Name 

S. N	Parameters	Specifications
3.3	Mooring Station Type	Trailer based portable station connectible to LMV/HMV
3.4	Power Supply	Continuous AC power supply at 220V to payload
3.5	Gross Weight	2 Tons or less
3.6	Tether System	Automatic cable winding and unwinding
3.7	Tether Length	300 mtrs or more
3.8	Tether Tensile Strength	1000Kg or more
3.9	Tether insulating covering	Should be of insulating material to avoid electrical shock
4. Ground Control Station Characteristics		
4.1	GCS should be MIL- STD-810G or IP 65 Rugged laptop	
4.2	Computing Hardware	
	CPU	Intel Core i5 v Pro Processor
	Storage	1 TB or more
	Memory	4GB or more
	Display	10 inch or more - 1024x 768 resolution
4.3	Battery Operation	Minimum 02 hours at peak utilization
4.4	Battery charging time of GCS	Should be less than 3.5 hours
4.5	Data portability	Ports for data transfer to external secondary storage devices
4.6	Interface	VGA, HDMI, USB, 10/100/1000 Ethernet
5. Day & Night Camera Payload Characteristics		
5.1	Payloads required	a) Should have capability to carry VHF DMR repeater with duplexer antenna at balloon height. b) Day & Night camera payload or Integrated camera payload
5.2	Day light payload	a) Color camera with PTZ feature
		b) Resolution: 720 × 1080 pixels or better
		c) Optical Zoom: 30X Zoom lens or more

Page

Su ^{Mr} [Signature] [Signature] [Signature] [Signature] [Signature] [Signature] [Signature]

Agreement