Directorate General Defence Purchase
Ministry of Defence
New Airport Road
Tejgaon, Dhaka-1215
Telephone: Military- 5040
Civil - 9133887
Fax: 9122748

26 Ashwin 1427

06.06.0000.221. Re-eval.20

11 October 2020

RE-EVALUATION OF MEDIUM RANGE UNMANNED AERIAL VEHICLE

Reference:

A. General Staff Policy Committee 7/2020 dated 24 September 2020 (Not to All).
B. Army Headquarters, General Staff Branch, Artillery Directorate letter number 23.01.901.031.01. 079.23.05.10.20/UAV dated 05 October 2020 (Not to All).

1. BD Army is evaluating **Unmanned Aerial Vehicle (UAV)** for procurement in current Financial Year 2020-2021. Preliminary Technical Specification of medium range UAV is enclosed. Therefore, interested firms are requested to send necessary following document of **Unmanned Aerial Vehicle (UAV)** (with respect to this system up to 150 kilometer Range) to Army Headquarters, General Staff Branch, Artillery Directorate directly with an intimation to this Directorate General:

a. Technical Specification Both hard and soft copy as per the Enclosure in Microsoft Word document (.doc) format. Information asked should not be kept blank.

b. Manuals and Brochure of all major components and FCI, including their details technical specification and picture (Original printed by Manufacturer) and CD.

c Catalogue(Original printed by Manufacturer) and CD.

d. Brochure (Original printed by Manufacturer) and CD.

e. Valid Certificate from original equipment manufacturer as authorized agent, stocking department, maintenance centre or authorized dealer.

f. Original letter of Authorization Certificate from the manufacture against the principal and local agent in Bangladesh.

g. All the documents submitted on manufacturer/principal official pad including official stamp with signed by the proper authority.

2. Your co-operation in this regard will be highly appreciated.

A S M SHAMSUR RAHMAN LASKAR
Major
For Director General

Enclosure:

1. Preliminary Technical Specification of UAV (Medium Range).

Distribution:
External:
Action:

(All Concerned Firm/Supplier)

Information:

Army Headquarters, General Staff Branch (Artillery Directorate)

Army Headquarters, General Staff Branch (Weapon, Equipment and Statistics Directorate)

Internal:

Action:

✓ IT Section - (For flashing on DGDP web site).

Notice Board

ANNEXURE A TO
ARMY HEADQUARTERS, GENERAL STAFF BRANCH, ARTILLERY DIRECTORATE LETTER NUMBER 23.01.901.031.01.079.23.05.10.20/UAV DATED 05 OCTOBER 2020

PRELIMINARY TECHNICAL SPECIFICATION OF UNMANNED AERIAL VEHICLE (UAV) MEDIUM RANGE

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	PART – 1 GENERAL SPECIFICATION		
1.	**General.**		
	a. Nomenclature	To be mentioned	
	b. Brand Name	To be mentioned	
	c. Model / Type	To be mentioned	
	d. Country of Origin	Group A & B Countries	
	e. Country of Assembly/Manufacture	Group A & B Countries	
	f. Year of Manufacture	Not before the calendar year of contract	
	g. Name of Manufacturer with complete address (Office address, Telephone, Fax, e-mail and web addresses)	To be mentioned	
	h. Name of Principal with complete address (office address, Telephone, Fax, e-mail and web addresses)	To be mentioned	
	j. Name of Local Agent with complete address (Office address, Telephone, Fax, e-mail and web addresses)	To be mentioned	
	k. Validity of the model	To be mentioned	
	l. How long the proposed model will remain in production	To be mentioned	
	m. Duration of after sales svc support	To be mentioned	
	n. **Planning Considerations.** The UAV is to be designed to support and assist in following specified mission specific tasks. Optional items (if available) are also to be offered with details for clear understanding: (1) All weather Intelligence, Surveillance and Reconnaissance (ISR) capability for both day and night within 200 km radius of operation including the option for pre-designated route. (2) Surveillance and Target Acquisition (SATA) for both Day and Night (3) Fire Correction (4) Target Engagement(Optional) (5) Target Tracking (both mobile and static) (6) Damage Assessment (7) Electronic Warfare (EW) and Signal Intelligence (8) Mapping (9) Route surveillance and monitoring	To be confirmed	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	PART – 2:TECHNICAL SPECIFICATION		
2.	**Operational Specification (Medium Range)**		
	a. Operational Range of UAV (km of radius)	≤200 km	
	b. Endurance (Hour)	24 Hours (+)	
	c. Cruise Speed (m/s)	To be mentioned	
	d. Stall Speed (m/s)	To be mentioned	
	e. Max Speed (m/s)	To be mentioned	
	f. Takeoff weight	To be mentioned	
	g. Max takeoff weight	To be mentioned	
	h. Total weight	To be mentioned	
	j. Fuel capacity	To be mentioned	
	k. Alt (ft)	≤18000	
	l. Live Steaming both day and night (Clear video transmission to GCS from max Allowable distance. Real time location transmission)	≥200 km	
	m. Location accuracy	± 1 m	
	n. Method of Take off	To be mentioned	
	p. Method of landing	To be mentioned	
	q. Payload options (Specify separately)	To be mentioned	
	r. Requirement of crew for operation	To be mentioned	
	s. 3D Mapping sys	Yes	
	t. Time required for 10 km x10 km mapping	To be mentioned	
	u. GIS based mapping sys	To be mentioned	
	v. Name & Version of GIS software (Software key need to be provided)	To be mentioned	
	w. Types of info available in mapping software	To be mentioned	
	x. Number of Target can track simultaneously	Minimum 10 targets	
	y. Linking up with satellite for data transmission. (If Yes, then the uplink and downlink frequency of the Bangabandhu satellite will be provided to incorporate with the UAV frequency)	Optional. Details to be mentioned if available.	
	z. **Miscellaneous**		
	(1) Ground support units	To be mentioned	
	(2) Remote video terminal system	To be mentioned	
	(3) Refueling system	To be mentioned	
	(4) Any other special capability	To be mentioned	
	(5) Time required to make UAV airborne from pack	To be mentioned	
	(6) UAV transportation means: Vehicle/ man pack/boxed pack	To be mentioned	
	(7) If any other items not specified in the list of accessories but required for the full range operation of UAV then the supplier will must provide such items free of cost	To be mentioned	
3.	**Maintenance and Structural Factors**		
	a. **Airframe Geometry.** The UAV is to be of such structure and design with essential features which will withstand its maximum speed. The airframe should be stable in nature. The airframe should offer additional gliding 'Performances in case of	To be confirmed	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	recovery from engine failure. It would also be of such design that it can fly with longer endurance with minimal fuel cost. The UAV is to have tri-cycle type under carriage assemblies which may be retractable or non-retractable. The structure may be built of metal alloy/carbon fiber/composite. The airframe design should be such that it contributes minimum RCS and IR signature. All the essential flight control systems are required to be available such as primary control surfaces for safe handling and better control of UAV.		
	b. **Environmental condition (Essential).** Due to hot and humid environment in Bangladesh, all the equipment including payloads and compartment should preferably be weatherproof/sealed:	To be mentioned	
	(1) Temperature Operation: (a) -20°c ~ +50°c (Airborne equipment) To be operative in air pressure and temperature as per proposed altitude (b) 0°c ~ +55°c (External equipment) (c) 0°c ~ +50°c (Ground equipment)	To be mentioned	
	(2) Humidity: 95% and above.	To be mentioned	
	(3) Precipitation	To be mentioned	
	(4) Dust	To be mentioned	
	(5) Must be capable for sustained high temperature and humid costal/maritime operation	To be mentioned	
	c. **Structural Strength and Life.** The UAV is to meet the following requirements:		
	(1) The airframe should have sufficient strength to withstand stress of take- off, landing and required in flight maneuverability with maximum payload	To be confirmed	
	(2) The ops life is not to be less than 8000 hours and 1600 landings	To be confirmed	
	(3) Calendar life of the UAV is not to be less than 15 years	To be confirmed	
	(4) Time before overhaul (TBO) should not be less than 2000 hours/5 yrs	To be confirmed	
	d. Aerial Platform	To be mentioned as per section 1	
	e. Ground Control Station (GCS)	To be mentioned as per section 2	
	f. Launching System	To be mentioned as per section 3	
	g. Communication System	To be mentioned as per section 4	
	h. Training Simulator	To be mentioned as per section 5	
4.	**Spare Parts Support**		
	a. Fast and Slow Moving Spares	To be mentioned/List including price to be mentioned. Avail of different location of	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
		spares including delivery timeline to be also mentioned	
	b. Special Service Tools (SST)	Details to be mentioned	
	c. Special Service Material (SSM)	Details to be mentioned	
	d. Repair and maintenance: Supply of spares cost to cost basis till the lifetime of the system (spares supply for the entire service life of 20 years)	Details to be confirmed	
	e. Warranty Period for the complete system and its associated equipment/ systems	Minimum 2 years	
	f. Software Support (any up-gradation/modification of the software for the entire service life to be provided free of cost)	Details to be confirmed	
	g. Time Requirement to deliver the product after agreement (Lead Time)	To be mentioned	
	h. Possible of future modification of software/ payload/ UAV and its offer	To be mentioned	
5.	**Maintenance / Logistic Support**		
	a. Repair / Overhaul Facility	To be mentioned	
	b. Supply of Spares (Fast Moving, Slow moving and other spares of maintenance) for entire service life of 20 years	To be confirmed	
	c. Software Operability (for entire service life of 20 years)	To be confirmed and details to be mentioned	
	d. Service Support During Warranty	To be mentioned	
	e. After Sales Service Support	Details to be mentioned	
	f. Scope for Technology Transfer	To be mentioned	
	g. Transportability of the UAV (the aircraft equipment, including appropriate packaging is to be transportable by land, sea or air. The packages are to be small and as light as possible and must be capable of being deaf with expeditiously by handling equipment likely to be available at the dispatching and receiving airfields. The packages must be capable of movement on airfields, roads and tracks. It is essential that the packaging is such that the equipment can be unpacked easily and quickly in order not to delay aircraft generation and turn-around time.)	To be confirmed	
	h. List of Consumable Items (a full list of preferred consumable items)	To be provided	
	j. List of Standard Items / Accessories(For full range of operation)	Details to be mentioned	
	k. List of Optional Items / Accessories	Details to be mentioned	
6.	List of backup spares for 10 years operation(To be offered as Optional items as per requirement)	To be mentioned	
7.	Training and maintenance tools requirement for 3rd line maintenance	To be mentioned	
8.	Stand by GCS	To be mentioned	
9.	On Site Project Development (OSPD) Team. A BD Army team having experience on R&D related to UAV comprising of 6 x Pilot, 3 x Engineer		Require specified is to

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	(Maintenance) and 3 x Engineer (Electronics) will stay at manufacturing site during the following stages of UAV manufacturing for effective technology transfer:		be decided by Inspection and Technical Development and User Directorate
	a. Major component production	To be mentioned	
	b. Assembling	To be mentioned	
	c. System integration	To be mentioned	
	d. Functional check and calibration	To be mentioned	
10.	Modification and Growth Potential. There should be scope of future modification if deemed necessary. Easiness in improvement is a desirable criterion. The UAV system must facilitate upgrading to accommodate various sensor payloads. The growth potential should cover the following areas:		
	a. Extended payload range	To be mentioned	
	b. Air vehicle capability for spare weight, volume and power consumption	To be mentioned	
	c. Air vehicle capability for spare interfaces with avionics system	To be mentioned	
	d. Data link bandwidth capabilities	To be mentioned	
	e. Ground system capability for operating future payloads	To be mentioned	
	f. Computer resource reserved capabilities for memory, timing etc.	To be mentioned	
11.	**Books and Publications (Including Airframe, GCS, VHF Radio Set, Vehicle, Computer and Simulator)**		
	a. Owners /Operators manual in English (Book type)	To be provided	
	b. Workshop/Repair and Maintenance manual in English (Book type)	To be provided	
	c. 100% updated master's spare parts catalogue in English (book type)	To be provided	
	d. Troubleshooting Manual: Fault Isolation Manual.	To be provided	
	e. Manuals: all components / parts of the system	To be provided	
12.	List of Special Service Tools for all components	To be provided	
13.	List of Special Service Materials for all components	To be provided	
14.	Any other Equipment/Assembly/Attachment that is required for smooth/proper functioning of the UAV System (as applicable) including quantity, Type, Model etc.	Details to be mentioned	
15.	Any special offer related to local assembly of different electronics, body etc. is appreciable	Details to be mentioned	

Sections Enclosed:

1. Section 1: Aerial Platform
2. Section 2: Ground Control Station (GCS)
3. Section 3: Launching System
4. Section 4: Communication System
5. Section 5: Training Simulator

SECTION –1:AERIAL PLATFORM

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
1.	**Airframe**.		
	a. **Wing.**		
	(1) Wing Span length	To be mentioned	
	(2) Wing platform type	To be mentioned	
	(3) Air foil	To be mentioned	
	(4) Flaps	To be mentioned	
	(5) Any other surface	To be mentioned	
	(6) Hard point: Minimum two (2), four (4) hard points preferential	To be mentioned	
	b. **Fuselage.**		
	(1) Length	To be mentioned	
	(2) Type	To be mentioned	
	(3) Empennage	To be mentioned	
	(4) **Payload carrying space and max dimension:** Cabin 1: For EO/IR Cabin 2: For SAR or EW/ other sensors	To be mentioned	
	(5) Under sling tow operation	To be mentioned	
	(6) Construction material	To be mentioned	
	(7) Landing gear/ skid type: Tricycle	To be mentioned	
	(8) Control surface actuators	To be mentioned	
	c. **Fuel Tank.**		
	(1) Capacity	To be mentioned	
	(2) Feeding type	To be mentioned	
	(3) Refueling/ defueling arrangement	To be mentioned	
	d. Total length of airframe	To be mentioned	
	e. Body composition	To be mentioned	
	f. Composition of materials used to make the body	To be mentioned	
2.	**Engine.**		
	a. Name	To be mentioned	
	b. Make/Model/Type	To be mentioned	
	c. Country of origin	To be mentioned	
	d. Year of manufacture	Not before the calendar year of contract	
	e. Country of assembly (If different than country of origin)	To be mentioned	
	f. Validity of the model	To be mentioned	
	g. How long the proposed model will remain in production	To be mentioned	
	h. Duration of after sales svc support	To be mentioned	
	j. **Propulsion type.**	To be mentioned	
	(1) Engine power	To be mentioned	
	(2) Engine rpm	To be mentioned	
	(3) Engine thrust	To be mentioned	
	k. **Propeller (if any).**	To be mentioned	
	(1) Pitch	To be mentioned	
	(2) Diameter	To be mentioned	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	l. **Fuel.**	To be mentioned	
	(1) Type	To be mentioned	
	(2) **Consumption rate**(For air and ground)		
	(a) During Take off	To be mentioned	
	(b) Climbing	To be mentioned	
	(c) Cruising	To be mentioned	
	(3) Lubrication	To be mentioned	
	m. **Starting Arrangement.** Self-starting with internal battery and with external battery/GPU	To be mentioned	
	n. On board generator capacity (Sufficient power output should be there for supplying power to mandatory and optional sensors/equipment)	To be mentioned	
	p. **Maintenance cycle.** 10,000 hrs overhaul cycle or more.	To be mentioned	
	q. Torque	To be mentioned	
	r. Bore diameter	To be mentioned	
	s. power plant	To be mentioned	
	t. Test bench report	To be mentioned	
3.	**Autopilot**		
	(1) Name	To be mentioned	
	(2) Brand	To be mentioned	
	(3) Make/Model/Type	To be mentioned	
	(4) Country of origin	To be mentioned	
	(5) Year of manufacture	Not before the calendar year of contract	
	(6) Country of assembly (If different than country of origin)	To be mentioned	
	(7) Validity of the model	To be mentioned	
	(8) How long the proposed model will remain in production	To be mentioned	
	(9) Duration of after sales svc support	To be mentioned	
	(10)**Autopilot modes and capabilities**.	To be mentioned	
	(a) On board equipment monitoring and management option	To be mentioned	
	(b) UAV state monitoring option	To be mentioned	
	(c) UAV flight control and navigation	To be mentioned	
	(d) Stabilize the attitude (pitch/roll/ heading) and altitude of flight	To be mentioned	
	(e) Track control	To be mentioned	
	(f) Tele-control commands decode and telemetry encode	To be mentioned	
	(g) Auto taxiing, take-off and landing	To be mentioned	
	(h) Fail safe	To be mentioned	
4.	**Payloads**.		
	a. EO Camera Module(For different sensors to be mentioned separately):		
	(1) Name/Brand/Manufacturer	To be mentioned	
	(2) Make/Model/Type	To be mentioned	
	(3) Country of origin	To be mentioned	
	(4) Year of manufacture	Not before the calendar year of contract	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	(5) Country of assembly (If different than country of origin)	To be mentioned	
	(6) Validity of the model	To be mentioned	
	(7) How long the proposed model will remain in production	To be mentioned	
	(8) Duration of after sales svc support	To be mentioned	
	(9) Number of sensors	To be mentioned	
	(10) Low light capability.	To be mentioned	
	(11) Surveillance camera must provide Full HD video output at min 30 fps.	To be mentioned	
	(12)Day and night capability at 0 lux.	To be mentioned	
	(13) Pan /Tilt /Zoom: 20-400 mm, continuous zoom, auto white balance or better.	To be mentioned	
	(14) Ground resolution: 0.1 m (@FOV=0.6deg, Altitude: ≤18000 ft) or better.	To be mentioned	
	(15) Picture element resolution: 0.25 m (Altitude: ≤18000 ft, visibility: 15 km) or better.	To be mentioned	
	(16) Maximum speed-height ration: ≥ 50°/s.	To be mentioned	
	(17) Single photography area: 1 km x 1 km (©FOV=14deg, Altitude: ≤18000 ft) or better.	To be mentioned	
	(18) Image sensor Type/name	To be mentioned	
	(19) Max image size and output format	To be mentioned	
	(20) Power supply	To be mentioned	
	(21) Power consumption	To be mentioned	
	(22) Temperature	To be mentioned	
	(23) Weight	To be mentioned	
	(24) Width	To be mentioned	
	(25) Height	To be mentioned	
	(26) Weather sealed	Yes	
	(27) Anti-vibration damping mount	To be mentioned	
	(28) Lense size	To be mentioned	
	(29) Maintainace cost	To be provided	
	(30) Onboard recording	To be mentioned	
	(31) Any other option	To be mentioned	
	b. **IR Camera Module:**	To be mentioned	
	(1) Name/Brand/Manufacturer	To be mentioned	
	(2) Make/Model/Type	To be mentioned	
	(3) Country of origin	To be mentioned	
	(4) Year of manufacture	Not before the calendar year of contract	
	(5) Country of assembly (If different than country of origin)	To be mentioned	
	(6) Validity of the model	To be mentioned	
	(7) How long the proposed model will remain in production	To be mentioned	
	(8) Duration of after sales svc support	To be mentioned	
	(9) Number of sensors	To be mentioned	
	(10) Low light capability.	To be mentioned	
	(11) Detection range (Min 20 km)	To be mentioned	
	(12) Identification range (Min 15 km)	To be mentioned	

<table>
<tr><th>Ser</th><th>Fact/Parameters</th><th>Technical Specification</th><th>To be filled by Principal/ Manufacturer</th></tr>
<tr><td></td><td>(13) Image sensor Type/name</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(14) Max image size and output format</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(15) Power supply</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(16) Power consumption</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(17) Temperature</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(18) Weight</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(19) Width</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(20) Height</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(21) Weather sealed</td><td>Yes</td><td></td></tr>
<tr><td></td><td>(22) Anti-vibration damping mount</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(23) Lense size</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(24) Any other option</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>c. <u>Visible light camera effective range for target</u></td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(1) Detection range: Min 20 km.</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(2) Identification range: Min 15 km.</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(3) Measurement distance: Min 15 km.</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(4) Accuracy: 1 m or better.</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>d. <u>Multi sensor imaging/lasering payload</u>(If any)</td><td></td><td></td></tr>
<tr><td></td><td>(1) HD thermal, HD daylight and HD low-light cameras</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(2) Continuous wide-angle zoom</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(3) High magnification step zoom spotter</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(4) High sensitivity color low light imaging</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(5) Compact, efficient, reliable laser target designator</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(6) SWIR camera images designator spot</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(7) MRTD</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(8) MTBF</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>e. <u>SAR</u>.</td><td></td><td></td></tr>
<tr><td></td><td>(1) Make/Type</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(2) Continuous operation hour: 4 hours or more.</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(3) Operation distance resolution bandwidth: as below or better:</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>
<table>
<tr><th>SAR Mode</th><th>Range</th><th>Resolution</th><th>Image width</th></tr>
<tr><td rowspan="2">Strip</td><td>20km</td><td>3m x 3m</td><td>6-8km</td></tr>
<tr><td>10km</td><td>1m x 1m</td><td>2km</td></tr>
<tr><td>Spot</td><td>10km</td><td>0.5m x 0.5m</td><td>500m x 500m</td></tr>
</table>
</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(4) GMTI: Must be able in clutter, minimum detectable velocity 20 kph, flight speed 170 kph, minimum detectable velocity =20km/h</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(5) Frequency: Ku or suitable band.</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(6) Output power</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(7) Power source and consumption rate</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>f. <u>Transponder</u> (If any)</td><td></td><td></td></tr>
<tr><td></td><td>(1) Manufacturer and Model no</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(2) ID/Squawk facility</td><td>To be mentioned</td><td></td></tr>
<tr><td></td><td>(3) Visible to TCAS: Preferable.</td><td>To be mentioned</td><td></td></tr>
</table>

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	(4) Mode A and Mode C: Must be capable.	To be mentioned	
	(5) Military mode: Preferable.	To be mentioned	
	(6) Power source and consumption rate	To be mentioned	
	g. **Armament Capability** (Optional)		
	(1) Quantity of Missiles	To be mentioned	
	(2) Type of missiles (e.g Air to Surface, Air to Air, etc) with quantity of each type	To be mentioned	
	(3) Complete nomenclature of each missile	To be mentioned	
	(4) Country of origin	To be mentioned	
	(5) Country of manufacturer	To be mentioned	
	(6) Name of manufacturer	To be mentioned	
	(7) Year of manufacture	Not before the calendar year of contract	
	(8) Year since when the models are in service	To be mentioned	
	(9) Are the models still in production?	To be mentioned	
	(10) Shelf life of the missile	To be mentioned	
	(11) Diagrammatic layout of the missile with details of various parts (e.g warhead, motor, guidance unit, power unit, etc)	Details to be mentioned	
	(12) Length of the missile	To be mentioned	
	(13) Weight of the missile	To be mentioned	
	(14) Diameter of the missile	To be mentioned	
	(15) Single fire or multiple fire at a time	To be mentioned	
	(16) Guidance system of the missile	Details to be mentioned	
	(17) Types of warhead (e.g. anti-armour, anti-personnel, multi-purpose, etc) with quantity of each type	To be mentioned	
	(18) Type of targets (static or moving the missile can engage effectively	To be mentioned	
	(19) Maximum allowable speed of moving target that can be engaged	To be mentioned	
	(20) Maximum height from where the missile can engage the target	To be mentioned	
	(21) Maximum distance at which the missile can engage the targets	To be mentioned	
	(22) Minimum distance at which the missile can engage the target	To be mentioned	
	(23) Flight time at maximum range	To be mentioned	
	(24) Single shot kill probability	To be mentioned	
	(25) Penetration capability (for anti-armour and multipurpose)	To be mentioned	
	(26) Lathal radius (for anti-personnel and multi-purpose)	To be mentioned	
	(27) Operating temperature	To be mentioned	
	(28) All weather capability	To be mentioned	
	(29) Storage temperature	To be mentioned	
	(30) Duration of after sales service support	To be mentioned	
	(31) Any other weapon compatible with offered UAV apart from missile	To be mentioned	
	(32) Training missile	To be provided	
	(33) Original catalogue	To be provided	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	h. **EW pods**. Supported pods: At least support ELINT, RWR and chaff/flares dispenser (the provisioning is mandatory). Other pods are mentioned in optional requirement.	Details to be mentioned	
	j. **ELINT:** (Should be compatible for maximum range of offered UAV)	Min 200 km	
	(1) Frequency range	To be mentioned	
	(2) Coverage: At least ±45° horizontal and -30° to 0° elevation.	To be mentioned	
	(3) Receiver sensitivity: -70 dBm or better.	To be mentioned	
	(4) DF accuracy: 2° or better.	To be mentioned	
	(5) Frequency Range	To be mentioned	
	(6) Bandwith	To be mentioned	
	(7) ADC Frequency	To be mentioned	
	(8) ADC Resolution	To be mentioned	
	(9) Frequency resolution	To be mentioned	
	(10) Frequency lock Time	To be mentioned	
	(11) Dynamic range	To be mentioned	
	k. **RWR.** (Should be compatible for maximum range of offered UAV)	Min 200 km	
	(1) Warning frequency: 2 GHz to 18 GHz.	To be mentioned	
	(2) Coverage: 360° horizontal and 0° to ±40° elevation or better.	To be mentioned	
	(3) Needs to be integrated with Chaffs/flares dispenser. Received radar frequency needs to be visible in GCS.	To be mentioned	
	(4) Chaffs and Flares	To be mentioned	
	(5)Any other sensors	To be mentioned	
	l. Laser Designator	To be mentioned	
	m. Laser range finder	To be mentioned	
	n. Laser pointer	To be mentioned	
5.	**COMINT.**		
	a. Frequency Range	To be mentioned	
	b. Bandwith	To be mentioned	
	c. ADC Frequency	To be mentioned	
	d. ADC Resolution	To be mentioned	
	e. Frequency resolution	To be mentioned	
	f. Phase Noise	To be mentioned	
	g. RF to IF Gain	To be mentioned	
	h. AGC Range	To be mentioned	
	j. Noise figure	To be mentioned	
	k. P1dB	To be mentioned	
	l. Max Input level	To be mentioned	
	m. Input Attenuator range	To be mentioned	
	n. Spectrum Sweep rate	To be mentioned	
	p. Dynamic range	To be mentioned	
	q. EMI/EMC	To be mentioned	
	r. Temp range	To be mentioned	
	s. Power output	To be mentioned	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	t. Weight	To be mentioned	
	U. Monitor outputs	To be mentioned	
6.	**Communication Jammer (Optional & compatible with aerial platform).**		
	a. Brand	To be mentioned	
	b. Make/Model	To be mentioned	
	c. Country of origin, Manufacture and Assembly	Group A & B Countries	
	d. Year of manufacture	Not before the calendar year of contract	
	e. Country of assembly (If different than country of origin)	Group A & B Countries	
	f. Validity of the model	To be mentioned	
	g. How long the proposed model will remain in production	To be mentioned	
	h. Duration of after sales svc support	To be mentioned	
	j. Range	To be mentioned	
	k. Frequency	To be mentioned	
	l. Type (Stationary/ Mobile)	To be mentioned	
	m. weight	To be mentioned	
	n. Interconnectivity with payload system	To be mentioned	
7.	**Optional Payload.**		
	a. Communication Relay System	To be mentioned	
	b. ELT (Emergency Locator Beacon)	To be mentioned	
	c. Live Missile System including necessary tester and test equipment (Missile type and specification)	To be mentioned	
	d. Compatible guided bomb (Type and specification)	To be mentioned	
	e. Practice missile and practice guided bomb (Type and specification)	To be mentioned	
8.	**Interface with other platforms (If applicable/optional).**		
	a. C3 system: Ground Control Station	To be mentioned	
	b. Receive process and transmit tactical info (capable)	To be mentioned	
9.	**Maritime Capability (If applicable/optional).**		
	a. Capability to operate in maritime domain	To be mentioned	
	b. Additional requirement to control from ship/marine vessel	To be mentioned	

SECTION – 2: GROUND CONTROL STATION (GCS)

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
1.	**General**.		
	a. Name/Brand	To be mentioned	
	b. Make/Model/Type	To be mentioned	
	c. Country of origin	Group A & B Countries	
	d. Year of manufacture	Not before the calendar year of contract	
	e. Country of assembly (If different than country of origin)	Group A & B Countries	
	f. Validity of the model	To be mentioned	
	g. How long the proposed model will remain in production	To be mentioned	
	h. Duration of after sales svc support	To be mentioned	
2.	**Details of the GCS (Mobile/ Vehicle mounted/ Any other type)**.	Detail specification for each type of GCS is to be mentioned separately	
	a. **Capabilities**.		
	(1) Launch	To be mentioned	
	(2) Flight control	To be mentioned	
	(3) Recovery	To be mentioned	
	(4) Real time telemetry: data link monitoring console.	To be mentioned	
	(5) Should be able to receive, display and exploit data from all payloads. The data link can transmit the data of EO/IR payload and SAR simultaneously.	To be mentioned	
	(6) Emergency action plan in case of failure of any system: emergency homing if data link failed and other emergency handling procedures.	To be mentioned	
	(7) Recording capability: Ability to store data in internal/external/portable HDD of GCS for at least 30 hours.	To be mentioned	
	(8) Should have capability to Receive, display and exploit data from payload.	To be mentioned	
	(9) Warning system for any type of unsafe op or parameter set or failure.	To be mentioned	
	b. **Mission Plan**.		
	(1) Generate and upload by wire or wireless: wireless and real time.	To be mentioned	
	(2) Validate mission plan (warning if anything beyond limit): capable.	To be mentioned	
	(3) Dynamic mission plan (change in flight): upload in real time.	To be mentioned	
	(4) Geo fencing: capable.	To be mentioned	
	c. GCS should be able to uplink data to Command Headquarters, if suitable link is provided by BA. Bidder is to include all necessary hardware and software (including license).	To be mentioned	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	d. The GCS must be able to communicate with ATC tower and radar station through suitable RT. Following considerations are to be specified: (1) Standard Radio Set used by BD Army is as follows: (a) Brand: F.u.n.k.e Avionics GmbH (b) Model: FSG-90H1 (c) Country of Manufacture: Germany (d) Quantity to be provided: 2 per GCS (2) Detail configuration of radio is to be mentioned.	To be provided	
	e. **Power for the full ground control station**.	To be mentioned	
	(1) Source: Must have Generator, should have provision for external AC source (220 V AC).	To be mentioned	
	(2) Consumption rate	To be mentioned	
	(3) Earthling and grounding	To be mentioned	
	(4) Separate 220V AC power inputs for generator and electrical network	To be mentioned	
	(5) External 220V AC power output for ground data terminal	To be mentioned	
	(6) External 24V DC power input for redundant power source for critical hardware	To be mentioned	
	f. **Generator**.		
	(1) **General Specification**		
	(a) Nomenclature	Generator 10 KVA	
	(b) Brand	To be mentioned	
	(c) Model	To be mentioned	
	(d) Name of Manufacturer	To be mentioned	
	(e) Country of Origin	Group A Countries	
	(f) Country of Manufacturer and Assembly	Group A Countries	
	(g) Year of Production	Not earlier than the year of contract	
	(2) **Dimension**		
	(a) Overall Length, Width & Height (with canopy) without trailer	To be mentioned	
	(b) Overall weight (with canopy)	To be mentioned	
	(3) **Output of the Generator**		
	(a) Prime	Minimum 10 KVA	
	(b) Stand by	To be mentioned	
	(4) **Working Condition**		
	(a) Operation	Generator set to be able to sustain 12 hours continuous operation per day at prime load	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	(b) Noise	The generator must have noise suppression system and able to operate in the open and in all-weather condition	
	(c) Canopy	Should be made of anticorrosive steel sheet and fireproof painting. Should be able to attenuate sound up to (maximum) db 90 at 1 meter having lockable louvers, doors. Glass windows for monitoring the metes to be provided. Fire retardant superior quality foam to be pasted inside the canopy. Color-MB Green	
	(d) Generator Location and Vehicle Safety	1. The generator should be integrated to the Vehicle, so that it can support the complete GCS. 2. Necessary cabling and safety and security of generator are to be planned accordingly	
	(e) Mounting	The generator to be mounted on its base with anti-vibration mounting	
	(f) Starting System	Self-starter with auto provision	
	(g) Safety Feature	The generator must have shutdown facility with sound warning against over voltage, over current, over load, low/high oil pressure over temperature etc	
	(h) Overall Efficiency	To be mentioned (To be compatible between engine and alternator)	
	(5) **Engine**		
	(a) Name of Manufacture/ Maker	To be mentioned	
	(b) Model	To be mentioned	
	(c) Country of Origin	Group A Countries	
	(d) Country of Manufacturer and Assembly	Group A Countries	
	(e) Year of Production	Not earlier than the year of contract	
	(f) Type of Engine	4 Stock Diesel Engine	
	(g) Number of Cylinders	To be mentioned	
	(h) Capability	Prime power available at variable load with a load factor not exceeding 80% of prime power rating, over load of 10% is permitted for 1 hour in every 12 hours operation	
	(j) Bore/Stroke	To be mentioned	
	(k) Piston Displacement	To be mentioned	
	(l) Compression Ratio	To be mentioned	
	(m) Output power (KW) with RPM	To be mentioned	
	(n) Cooling System	Liquid Cooling	
	(p) Turbo charger (If available)	To be mentioned	
	(q) Specific Fuel Consumption Liters/hours at full load	To be mentioned	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	(r) Starting Voltage	12 Volt DC	
	(s) Engine Alternator	Capacity to be mentioned (Volt, Amp, KW). Self-battery charging by engine driven	
	(t) Engine Efficiency	To be mentioned	
	(u) Weight of engine	To be mentioned	
	(v) Fuel Tank Capacity	To be mentioned (for minimum 12 hours continuous operations at full load)	
	(w) Battery for start the Generator (12 Volt)	AH to be mentioned	
	(x) Battery Charging Facilities	Self-battery charging by engine driven dynamo/ alternator	
	(y) Self-starter	Volt & KW to be mentioned	
	(6) **Alternator (Generator)**		
	(a) Name of Manufacturer/ Maker	To be mentioned	
	(b) Model	To be mentioned	
	(c) Country of Origin	Group A Countries	
	(d) Country of Manufacturer and Assembly	Group A Countries	
	(e) Year of Production	Not earlier than the year of contract	
	(f) Type	To be mentioned	
	(g) Rated prime and standby output (KVA)	To be mentioned	
	(h) Rated output voltage	220 Volt Single phase and minimum 380 Volt three phase	
	(j) Frequency	50 Hz	
	(k) No of phases & wires	To be mentioned	
	(l) Power Factor (Cos Ø)	Not less than 0.8	
	(m) Enclosure	To be mentioned	
	(n) Voltage Regulation	Maximum ± 1.5%	
	(p) AVR	To be available	
	(q) Ventilation	Self-ventilated air cooled	
	(r) Insulation Class	To be mentioned	
	(s) RPM	To be mentioned	
	(t) Efficiency	85% (Minimum)	
	(u) Weight of Alternator	To be mentioned	
	(7) **Control Panel**		
	(a) Meter & Gauges	Displaying Volt, Ampere, Frequency, Fuel in Tank, Oil pressure, Running/Operating Hour. Water Temperature, KVA, KW, RPM, Power factor (pf) etc. Must be easily visible by the operator. All alarm and data logging system should be available	
	(b) Switches	Start & Stop key/push button with auto starter provision	
	(8) Cables and Terminal	Required necessary cables of flexible type and adequate size (RM to be mentioned), 3 phase	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
		with neutral power cable to be provided with each Generator with cable plugs/lugs at the delivery end & adequate size power plugs/lugs at the generator end/out let.	
	(9) Tool Kits	A complete set of tool kits to be provided with each Generator (List to be provided)	
	(10) **Books & Publications**	To be provided as per requirement	
	(a) Operational/User Manual in English original (Book Type)	To be provided	
	(b) Repair Manual in English original (Book Type)	To be provided	
	(c) 100% Parts Catalogue in English original (Book Type)	To be provided	
	(d) 100% Price list of Catalogue in English original	To be provided	
	(e) A list of fast and slow moving spares (with unit price of 5% of FOB value) in English	To be provided along with the offer	
	g. **IFF System(Optional)**		
	(1) EW protection specially protection against homing missile: Radar Warning Receiver and Self Protect jamming pods	To be mentioned	
	(2) Compatible interfacing diagram of IFF	To be provided	
	(3) IFF Antenna	To be provided	
	(4) Compatible with BD Army used IFF system	To be mentioned	
	h. Provision for future Integration of BD Army IFF system to the UAV	To be available	
3.	**Details of the GCS Computer**.		
	a. **General**.		
	(1) Brand and Model	To be mentioned	
	(2) Country of Origin	Group A & B countries	
	(3) Country of Manufacture/ Assembly	Group A & B countries	
	(4) Processor	To be mentioned	
	(5) Processor Speed	To be mentioned	
	(6) Motherboard	To be mentioned	
	(7) Memory	To be mentioned	
	(8) Storage	To be mentioned	
	(9) Keyboard/Input device	To be mentioned	
	(10) DVD and Read-Write Devices	To be mentioned	
	(11) Monitor (Number, size, resolution, displayed features etc)	To be mentioned	
	(12) Graphics	To be mentioned	
	(13) Interchange ability of computers	To be mentioned	
	b. **Connectivity/ Communications**.		
	(1) Wireless LAN/PAN	Intel Centrino advanced- N 6205 (802.11a/b/g/n) or above	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	(2) Wired	10/100/1000 Gigabit Ethernet	
	(3) Mobile Broadband and GPS	To be mentioned	
	(4) Other Ports/Interfaces/ Connectivity (USB/ HDMI/CD ROM)	To be mentioned	
	c. Operating Systems	Windows 10 and above (Original and licensed version)	
	d. **Security**.		
	(1) User and system security	Fingerprint reader, TPM module to be available	
	(2) Physical security	To be mentioned	
	e. Power Supply with Battery Back-up	(a) Lithium-ion rechargeable battery for minimum 03 hours continuous operation with an additional battery (b) AC adapter: (220V AC + 5%, 50 Hz) and DC adapter (12V/24V) to be available for charging the battery by AC and DC (Vehicle battery) sources respectively	
	f. Resources DVD/CD	All hardware supported drivers CD	
	g. **PLC & INS**(Optional)	To be mentioned separately	
	(1) General description	To be mentioned in details	
	(2) Data processing system	To be mentioned	
	(3) Major components	To be mentioned	
	(4) Details of operating system	To be mentioned	
	h. **Environmental Standard**		
	(1) Drop	MIL-STD- 810 G	
	(2) Vibration	MIL-STD- 810 G	
	(3) Rain/splash proof	MIL-STD- 810 G	
	(4) Humidity	MIL-STD- 810 G	
	(5) Dust tight	MIL-STD- 810 G	
	(6) Operating temperature	-10°c to +55°c	
	j. **System Software**	To be provided with serial key &life time online upgrading system	
	(1)**General**		
	(a) Compatibility of software with different operation system and up gradation details	To be mentioned	
	(b) Provision of specific antivirus	To be mentioned	
	(c) Display options	To be mentioned	
	(d) Printing option	To be mentioned	
	(e) Safety features	To be mentioned	
	(2) **Display module**		
	(a) Location of min 5 targets in BUTM	To be mentioned	
	(b) Target to target distance	To be mentioned	
	(c) Min 10 Types of target recognition (Tank, Arty gun with types, Weapon pit/location, APC, APV etc.)	To be mentioned	
	(d) Speed of all tracked targets	To be mentioned	
	(e) Raster map data display option	To be mentioned	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	(f) Shape files display option on map	To be mentioned	
	(g) Elevation display options on map	To be mentioned	
	(h) Live 3D Mapping information for a particular area	To be mentioned	
	(j) Info about ground data & GCS on map	To be mentioned	
	(k) Altitude, speed, waypoints, takeoff & Landing points, location of UAV	To be mentioned	
	(l) Direction of UAV from GCS in mills, rukhs & degree	To be mentioned	
	(m) Direction of Target from UAV and GCS in mills, rukhs & degree	To be mentioned	
	(n) Information of all airborne UAVs	To be mentioned	
	(p) IFF and Transponder information (If applicable)	To be mentioned	
	(q) Jammer controlling information (If applicable)	To be mentioned	
	(r) Multiple UAVs moving position, foot print and trace in 3D	To be mentioned	
	(s) Multiple UAVs ID, Title, Altitude, Angle etc.	To be mentioned	
	(t) Viewing of meteorological data	To be mentioned	
	(u) Warning for all dangerous parameters and when one UAV come closer	To be mentioned	
	(3)**Map module Information**	To be mentioned	
	(a) Forming of flight routes and send them to autopilot on airborne	To be mentioned	
	(b) Drawing of airports, taxing route, Takeoff & Landing routes, restricted flying area, foe & friendly area,	To be mentioned	
	(c) Pins can be added for any area, target, building etc.	To be mentioned	
	(d) Drawing on map as per user requirement	To be mentioned	
	(e) Military symbols drawing option	To be mentioned	
	(f) Real time tracking of multiple UAVs	To be mentioned	
	(g) Automatic detection & display of target and UAVs location (City/ district name)	To be mentioned	
	(h) Viewing meteorological conditions while tracking the UAVs	To be mentioned	
	(j) Tracking a snapshot of a frame from the video & positioning this image on terrain map (BUTM) to the true location	To be mentioned	
	(k)Storing of snapshot images &trace data in database	To be mentioned	
	(l) Checking of overlapping routes	To be mentioned	
	(4) **Video/ Camera module**		
	(a) Viewing of RSSI, flight mode, latitude & longitude of both UAV & the targets on video window	To be mentioned	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	(b) Viewing of temp, power consumption, remaining power, time & date of flying on video window	To be mentioned	
	(c) Viewing of distance to waypoint, on video window	To be mentioned	
	(d) Video recording option on video window	To be mentioned	
	(e) Camera switching options on video window	To be mentioned	
	(f) Display of tail camera, landing gear camera & Gimbal camera in separate window	To be mentioned	
	(g) Heads Up display for various type of missions	To be mentioned	
	(h) Only authorized users can watch live HD video in a remote station	To be mentioned	
	(J) Web based password protected live video streaming option	To be mentioned	
	(k) Multiple users can watch live video streaming on mobile/tablet with OTP	To be mentioned	
	(l) Live video recording option in remote devices	Minimum 30 munities, Maximum to be mentioned	
	(m) Remote users can add tags and notes	To be mentioned	
	(n) Live streaming transition options	To be mentioned	
	(5)**Usable windows base application software/ drivers/ firmware**		
	(a) Microsoft Office 10 and above/others	To be mentioned	
	(b) All relevant printer software	To be mentioned	
	(c) Long range VHF modem software	To be mentioned	
	(d) Long range surveillance camera software	To be mentioned	
	(e) Digital compass software	To be mentioned	
	(f) GPS software integration system	To be mentioned	
	(g) GIS software integration system	To be mentioned	
	(6)Backup Software (with serial key)	To be mentioned	
	(7) Video feed of UAV in a separate display unit with separate window	To be mentioned	
	(8)Integration of BUTM map in GCS	To be mentioned	
	(9) Multiple UAV monitoring software	To be mentioned	
4.	**Remote Video Terminal**	To be mentioned	
	a. Name/Brand	To be mentioned	
	b. Make/Model/Type	To be mentioned	
	c. Country of origin	To be mentioned	
	d. Year of manufacture	Not before the calendar year of contract	
	e. Country of assembly (If different than country of origin)	To be mentioned	
	f. Validity of the model	To be mentioned	
	g. How long the proposed model will remain in production	To be mentioned	
	h. Duration of after sales svc support	To be mentioned	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	j. Computer(As per the configuration of mobile/ ground-based GCS)	To be mentioned	
	k. Tracking antenna name, model, battery used, voltage input, power consumption from battery and external power sources	To be mentioned	
	l. Height of antenna tripod	To be mentioned	
	m. Man pack option for whole package	To be mentioned	
	n. Number of batteries to be provided	To be mentioned	
	p. Any other equipment required for remote video terminal is to be given in details	To be mentioned	
5.	**Mini GCS (Optional)**	To be offered as optional if available	
	a. Capabilities(As per the configuration of mobile/ ground based GCS)	To be mentioned	
	b. System Software(As per the configuration of mobile/ ground based GCS)	To be mentioned	
	c. Computer(As per the configuration of mobile/ ground based GCS)	To be mentioned	
	d. Mission planning(As per the configuration of mobile/ ground based GCS)	To be mentioned	
	e. Display & mapping module(As per the configuration of mobile/ ground based GCS)	To be mentioned	
	f. Video module(As per the configuration of mobile/ ground based GCS)	To be mentioned	
	g. Portable charging station	To be mentioned	
	(1) Make and Model	To be mentioned	
	(2) Brand	To be mentioned	
	(3) Country of Origin	To be mentioned	
	(4) Country of Manufacturer	To be mentioned	
	(5) Country of Assembly	To be mentioned	
	(6) Name of Firmware with license key	To be mentioned	
	(7) Year of manufacture	Not before the calendar year of contract	
	(8) Spares battery with price	To be mentioned	
	(9) Weight	To be mentioned	
	(10) Size	To be mentioned	
	(11) Air-cooling options	To be mentioned	
	(12) External power supply cables	To be mentioned	
	(13) Warning and error notification	To be mentioned	
	(14) Types of batteries can be charged	To be mentioned	
	(15) Computer battery can be charged	To be mentioned	
	(16) Input Voltage	To be mentioned	
	(17) Charging current capacity	To be mentioned	
	(18) Discharging capacity and other options	To be mentioned	
	(19) Number of batteries can be charged simultaneously	To be mentioned	
	(20) Internal balancing specification	To be mentioned	
6.	**Vehicle Portion for the Vehicle Mounted& Mobile GCS System**.	(Configuration of vehicle should be as follow in addition of requirement of GCS system)	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	a. **General**.		
	(1) Make and Model of vehicle	To be mentioned	
	(2) Drive and Configuration	RHD and Minimum 4x4	
	(3) Country of Origin	Group A Countries	
	(4) Country of Manufacturer	Group A Countries	
	(5) Country of Assembly	For CBU: Group A For CKD: Group A and Bangladesh	
	(6) Name and address of Manufacturer	To be mentioned	
	(7) Name and complete address of Principal	To be mentioned	
	(8) Name and address of Local Agent	To be mentioned	
	(9) Year of manufacture	Not before the calendar year of contract	
	b. **Performance**.		
	(1) Grade-ability at (% Degree) 10 km Speed	60% (Minimum)	
	(2) Approach & Departure angle	Not less than 30° without pintle hook and winch. Not less than 24° with pintle hook and winch	
	(3) Fording Depth	600 mm (Minimum)	
	(4) Towed Load	8 Ton (Minimum)	
	(5) Seating Capacity	To be mentioned	
	(a) For rear body	To be mentioned	
	(b) For cabin	To be mentioned	
	(6) Turning Radius	To be mentioned	
	(7) Fuel Consumption	To be mentioned	
	(8) Fuel Tank Capacity	To be commensurate with cruising range with full load	
	(9) Cruising Range (full load)	Minimum 450 KM	
	(10) Ground Clearance	300 mm (Minimum)	
	(11) Front & Side Fenders	To be mentioned	
	c. **Weights (Kg)**		
	(1) Gross Vehicle Weight (GVW)	To be mentioned	
	(2) Pay load (Cross country)	5 Ton (Minimum)	
	(3) Power to weight ratio (HP/Wt in ton)	To be mentioned	
	(4) Curb Weight (kg/ton)	To be mentioned	
	(5) Gross Combination Weight (GCW)	To be mentioned	
	d. **Dimensions**		
	(1) Overall length	To be mentioned	
	(2) Overall width (vehicle)	To be mentioned	
	(3) Overall width (cabin)	To be mentioned	
	(4) Overall height (cabin)	To be mentioned	
	(5) Tread front	To be mentioned	
	(6) Tread rear	To be mentioned	
	(7) **Rear body**		
	(a) Length	To be mentioned	
	(b) Width	To be mentioned	
	(c) Height	To be mentioned	
	(d) Overall height	To be mentioned	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	(8) Wheel Base	To be mentioned	
	(9) Front over hang	To be mentioned	
	(10) Rear over hang	To be mentioned	
	e. **Engine**		
	(1) Make & Model	To be mentioned	
	(2) Country of Origin	Group A Countries	
	(3) Country of Manufacture	Group A Countries	
	(4) Country of Assembly	Group A Countries	
	(5) Type	To be mentioned	
	(6) Year of manufacture	Not before the calendar year of contract	
	(7) Number of Cylinder	Minimum 6 cylinder	
	(8) HP with RPM	To be mentioned (Minimum 240 HP)	
	(9) Torque with RPM	To be mentioned	
	(10) Piston Displacement	To be mentioned	
	(11) Compression Ratio	To be mentioned	
	(12) Fuel	Diesel	
	(13) Cooling system type	Liquid cooled	
	(14) Bore & Stroke	To be mentioned	
	(15) Type of Fuel injection pump	To be mentioned	
	(16) Air Cleaner	To be mentioned	
	(17) Water Resistant Engine	To be mentioned	
	(18) Engine test bench certificate and report	Engine Test Bench Repot which was prepared by manufacturer during production engine at manufacturing factory must be produced and submitted to the PSI team for each model. Other engines (Mentioning engine number) of the same model must be certified confirming the engine Test Bench Report by the manufacturer (Duly signed and stamped)	
	(19) Engine Life before 1st overhauling (in mileage and hour)	Engine life in terms of km run before 1st overhauling to be mentioned and to be certified by the manufacturer	
	f. **Speed**.		
	(1) Highway (Maximum speed)	To be mentioned	
	(2) Cross Country (Maximum)	To be mentioned	
	(3) Maximum Speed in Towing condition	To be mentioned	
	g. **Transmission system**.		
	(1) Type	To be mentioned	
	(2) Make and Model	To be mentioned	
	(3) Number of Gear	To be mentioned	
	(4) Gear Ratio	To be mentioned	
	(5) Country of Origin	Group A Countries	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	(6) Country of Manufacture	Group A Countries	
	(7) Country of Assembly	Group A Countries	
	(8) Differential lock/ limited slip differential/Non Spin differential	To be provided at both front and rear	
	h. **Transfer Case**.		
	(1) Make and Model	To be mentioned	
	(2) Country of Origin	Group A Countries	
	(3) Country of Manufacturer	Group A Countries	
	(4) Country of Assembly	Group A Countries	
	(5) Transfer Cases Ratio	To be mentioned	
	j. Clutch Type & Model	To be mentioned	
	k. **Suspension**.		
	(1) Front	To be mentioned	
	(2) Rear	To be mentioned	
	l. **Axle Load**.		
	(1) Front Axle Load	To be mentioned	
	(2) Rear Axle Load	To be mentioned	
	(3) Type of Axle	To be mentioned	
	(4) Country of Origin	Group A Countries	
	(5) Country of Manufacturer	Group A Countries	
	m. **Brake**.		
	(1) Service Brake	To be mentioned	
	(2) Parking Brake	To be mentioned	
	(3) Trailer Brake	Provision for two line trailer air brake coupling (NATO Standard)	
	(4) Emergency Brake	To be mentioned	
	(5) Auxiliary Brake	To be mentioned	
	n. **Electrical system**.		
	(1) System/ Power source	24 volt	
	(2) Battery	2 x 12 volt, AH to be mentioned	
	(3) Alternator	Volt and amp to be mentioned	
	(4) Starter Motor	24 volt, kw to be mentioned	
	p. **Wheels**.		
	(1) Tyre type	Must be radial and steel belted	
	(2) Tyre size	To be mentioned	
	(3) Total Number of Tyre including spares	To be mentioned	
	(4) Brand	Michelin/ Bridgestone/ Dunlop/ Goodyear/ Yokohama/ Toyo/ Uniroyal/ Continental/ Folda/ Firestone/ Armstonng/ AMTEL/ Pirelli/ Hankook/ Kumho	
	(5) Number of Ply	To be mentioned	
	(6) Tyre Tread Pattern	ND, GG, CC	
	(7) Country of Origin	USA/Japan/EU countries/ Russia/Brazil/ Indonesia/ Malaysia/Turkey/ Philippines/ Singapore/ Thailand	
	(8) Rim Size	To be mentioned	
	(9) Rear Wheel	Single	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	q. Steering	Power Steering	
	r. **Chassis Frame**		
	(1) Length	To be mentioned	
	(2) Width	To be mentioned	
	(3) Chassis thickness	To be mentioned	
	(4) Chassis frame type	To be mentioned	
	(5) Country of origin	Group A countries	
	(6) Country of manufacturer	Group A countries	
	(7) Country of assembly	Group A countries	
	s. **Cabin**.		
	(1) Type	Re-enforced structure, hard top insulated	
	(2) Observatory Hatch	Observatory hatch (swivel type) with hip ring pad at middle of drivers and co-driver seat with foot step cum seat for commander to be provided along with handle for commander in the roof	
	t. **Standard Accessories**.		
	(1) Self Recovery	Mechanical/ Hydraulic winch at front having capacity and capable for self-recovery of the vehicle. With winch rope length 45 m (Minimum) and diameter 11 mm (Minimum). Brand and origin of winch to be mentioned.	
	(2) Towing Attachment	Rear swiveling type pintle hook minimum 10 Ton capacity,12 pin electric connector NATO std. 800-1000 mm (To be adjustable as per user's requirement)	
	(3) Black out light	(1) 02 x Black out indicator and side light NATO Standard at front RH& LH	
		(2) 02 x Black out comb (stop and side) light NATO Standard at rear RH & LH	
		(3) 01 x Black out convoy light at rear	
		(4) 01 X Black out driving light NATO Standard at front RH	
	(4) Tool box and Jerrican	01 x tool box and double jerrican carrier to be provided below the load body with external lockers	
	(5) Spare wheel &tyre hanger	01 x spare wheel with lifting and hanging facilities to be provided	
	(6) Towing Hook Capacity	Minimum 10 Ton	
	(7) Concealment & Camouflage	Camouflage net to be provided	
	u. Ergonomics	The drivers cabin, arrangement of the seat, controls and instrument panels should be so arranged that	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
		an average army driver does not feel fatigued in driving at the vehicle on long routes. The seats should be adjustable to achieve comfortable driving position. The temperature inside the cabin should be maintained at a comfortable level by the means of adequate circulation of fresh cool & hot air	
	v. Emission level	Should be as per manufacturer's country standard. Standard to be mentioned	
	w. Daily Endurance	To be mentioned	
	x. **Stowage Accessories**.		
	(1) Tyre Inflator	Tyre inflator complete with required high pressure hose, adaptor, pressure gauge & nozzle (from the main air compressor to all wheels)	
	(2) Window Glass	Fixed type window glass to be provided at rear of cab for visual communication with troops on load body	
	(3) Wind Screen Washer Unit	Front windshield glass washer to be equipped	
	(4) Sun Visor	02 X To be provided	
	(5) Rear view mirrors with minimum one down view mirrors opposite to driver's side.	02 X To be provided	
	(6) Rear view mirror inside the cabin.	01 X To be provided	
	(7) Canopy for Load Body	To be provided	
	(8) Drivers & Co-driver Seat belts.	To be provided	
	(9) Rifle clips inside the cabin for placing two rifles	To be provided for Rifle BD-08	
	(10) Attachment points/hooks.	Attachment points/hooks for load restraint straps and chain for securing ammunition boxes and conventional loads to be provided	
	(11) Reverse light along with head light, tail light. side light, indicator light, cabin light, all dash board indicator, KM meter with stabilizer, warning light and control (for fuel, temperature, water, oil, air brake, indicator etc) as required, protection guard for all outside light	To be provided	
	(12) Fog head lights at front for driving foggy weather including two rear fog lights	To be provided	
	(13) Fire Extinguisher, Attachment, Capacity	Fire extinguisher A, B,C,E type 3 kg complete with chemical and fixing bracket to be provided	
	(14) Tying Hooks for canopy /ropes	To be provided	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	(15) Hydraulic Jack with handle 10ton capacity.	To be provided	
	(16) Inspection Lamp	Inspection lamp complete with 10 meters cable, plug and socket in the vehicle	
	(17) Standard maintenance tools set original to be provided for each vehicle	To be mentioned with list	
	(18) Windshield glass	Laminated type to be provided	
	(19) Rear view camera	To be mentioned (Optional)	
	y. **Colour**.		
	(1) Vehicle	Docu Paint (Nitro Cellulose Based MB Green)	
	(2) Canopy	Combat Colour used in BD Army	
	z. Model Validity	Minimum 10 years	
	aa. Fast and Slow moving spare parts availability	Minimum 15 years	
	bb. Training	To be mentioned	
	cc. A list of 5%(fast and slow moving) spares	To be provided	
	dd. Repair, maintenance and after sale service support from local firm	To be provided	
	ee. Brochures/Catalogues (In original)	To be provided	
	ff. List of standard service tools(SST)	To be provided	
	gg. Standard service material(SSM)	To be provided	
	hh. Authorization certificate in favor of local agent by principal	To be provided	
	jj. Authorization certificate in favor principal by manufacturer	To be provided	
7.	Details of antenna is to be provided including the vehicle required for the mobile GCS antenna		
8.	Any other Equipment/Assembly/ Attachment that is required for smooth/ proper functioning of the Ground Control Station (as applicable) including quantity, Type, Model etc.	Details to be mentioned	

SECTION –3: LAUNCHING SYSTEM

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
1.	**Type of Launch**.		
	a. Type	To be mentioned	
	b. Height of Launch	To be mentioned	
	c. Minimum Space required	To be mentioned	
	d. Requirement of Runway	To be mentioned	
	e. Any special requirement	To be mentioned	
	f. Instrumented Landing System (If Offered)	To be mentioned	
	g. Launching and Landing at Night	To be offered and details to be mentioned	
	h. Recovery system	Details to be mentioned	
2.	**Ground Based Launching System: Catapult Launch (if Offered)**		
	a. **Type: Elastic**.		
	(1) Make/Model/Type	To be mentioned	
	(2) Country of origin	Group A & B Countries	
	(3) Year of manufacture	Not before the calendar year of contract	
	(4) Country of assembly	Group A & B Countries	
	(5) Minimum Space required	To be mentioned	
	(6) Life of elastic	To be mentioned (Min 100 flights)	
	(7) Type of rubber used in elastic	To be mentioned	
	(8) Weight of catapult with all accessories	To be mentioned	
	(9) Any special requirement	To be mentioned	
	(10) Recovery System	Details to be mentioned	
	b. **Type: Hydraulic**.		
	(1) Make/Model/Type	To be mentioned	
	(2) Country of origin	Group A & B Countries	
	(3) Year of manufacture	Not before the calendar year of contract	
	(4) Country of assembly (If different than country of origin)	Group A & B Countries	
	(5) Min Space required	To be mentioned	
	(6) Life of elastic (Minimum 100 flights)	To be mentioned	
	(7) Number of motor used	To be mentioned	
	(8) Name of motor manufacturer	To be mentioned	
	(9) Power source of motor	To be mentioned	
	(10) Power backup option for motor	To be mentioned	
	(11) Power backup time for motor	To be mentioned	
	(12) Voltage of motor	To be mentioned	
	(13) Replacement option for motor	To be mentioned	
	(14) Service time for motor	To be mentioned	
3.	**Vehicle Mounted Launching System(If Offered)** (If vehicle is supplied then the configuration of vehicle would be as same as the specification mentioned in Vehicle Portion of the Vehicle Mounted GCS System of Section-III: Ground Control Station (GCS)	Details to be mentioned	
4.	Any Other Type of Launching System	Details to be mentioned	
5.	Details to be provided for full range of operation for Launching and Landing	To be offered	

ECTION - 4: COMMUNICATION SYSTEM

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
1.	**Technical Specification to Communicate from GSC to UAV.**		
	a. **Details of the Communication Arrangement.**		
	(1) Nomenclature	To be mentioned	
	(2) Brand	To be mentioned	
	(3) Model	To be mentioned	
	(4) Country of origin	To be mentioned	
	(5) Details of Auto pilot Manufacturer company	To be mentioned	
	(6) Year of Production	Not earlier than the contract date	
	(7) Linking Option with Satellites	To be mentioned (Optional). Possibilities of integration of Bangabandhu Satellite is to be given priority. Details to be mentioned.	
	(8) Return to Base Feature	To be mentioned	
	(9) Actions of UAV on Communication Link Disruption	To be available and details to be mentioned	
	b. **Technical Parameters**:		
	(1) Frequency range	Military grade frequency	
	(2) Channel Spacing	To be mentioned	
	(3) Number of Memory Channel	To be mentioned	
	(4) Number of working Channel	To be mentioned	
	(5) Transmitter &Receiver	Detail technical specification to be mentioned	
	(6) UAV link with GCS	To be mentioned in details	
	(7) Alternative UAV link with GCS	To be mentioned in details	
	(8) Data link for Avionics	To be mentioned in details	
	(9) Communication link security(i.e. Encryption /Frequency Hopping etc)	To be mentioned in details	
	(10) Data integration of various devices to UAV and measures to communicate	To be available and details to be mentioned	
	c. Communication Range: From Ground Control Station (GCS) to UAV	Minimum 250 Km	
	d. Antenna Type	To be mentioned	
	e. Power Supply System	To be mentioned	
	f. Full Configuration of Autopilot	To be mentioned in details	
	g. Frequency band used by the system for long range communication	Detail specification to be mentioned	
	h. Same frequency is used by any other country/organization	To be mentioned	
2.	**Technical Specification of Wireless Set Very High Frequency (VHF) 50 Watt (+) (Military Version) With Standard Tools and Accessories**		
	a. **General Specification.**		
	(1) Nomenclature	Radio set (VHF) is preferable from the existing 'Standard' models of BD Army. Or Radio sets (VHF) compatible with the offered UAV System may be	
	(2) Brand		
	(3) Model		
	(4) Country of origin		
	(5) Country of Manufacturer		

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
		proposed. In this case, Radio sets should be tested (Test and trial at no cost no obligation basis) in the environment of BD before arrival of the UAV system	
	b. Name and detail contact address of Manufacturer	To be mentioned	
	c. Name and detail contact address of Principal	To be mentioned	
	d. Year of Production	Not earlier than the calendar year of production	
	e. Type and number of radio set in each vehicle	To be mentioned	
	f. **Technical Specification**.		
	(1) Frequency range	To be mentioned	
	(2) Channel Spacing	To be mentioned	
	(3) Number of Memory Channel	To be mentioned	
	(4) Number of working Channel	To be mentioned	
	(5) **Transmitter**.		
	(a) RF Power Output	Low: To be mentioned Medium: To be mentioned High: To be mentioned	
	(b) Modulation type	To be mentioned	
	(c) RF input impedance	To be mentioned	
	(6) **Receiver**.		
	(a) Sensitivity	To be mentioned	
	(b) AF Output	To be mentioned	
	(c) Squelch type	To be mentioned	
	(7) **Power/ Current consumption.**		
	(a) At Transmission Position	To be mentioned	
	(b) At Reception Position	To be mentioned	
	(8) **Communication Range**.		
	(a) From Battery Command Post to GCS	Minimum 50 Km	
	(b) From Regiment Command Post to Battery Command Post	Minimum 20 Km	
	(c) From Regiment Command Post to Higher Command Post	Minimum 20 Km	
	(9) Accessories required to operate – antenna, mast antenna and other accessories (should be operable from inside the vehicle)	To be confirmed	
	(10) **Features/Facilities**.		
	(a) Security Requirement	Available and must be included	
	(b) Data Service	To be mentioned	
	(c) Standard Security Feature	Available and must be included	
	(d) Optional Features (if any)	To be mentioned	
	(11) **Environmental Test**.		
	(a) Operating Temperature	As per Mil Std 810G	
	(b) Storage Temperature	As per Mil Std 810G	
	(c) Humidity	As per Mil Std 810G	
	(d) Immersion	As per Mil Std 810G	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	(e) Drop test	As per Mil Std 810G	
	(f) Shock	As per Mil Std 810G	
	(g) Vibration Proof	As per Mil Std 810G	
	(h) Dust	As per Mil Std 810G	
	(j) Splash	As per Mil Std 810G	
	(12) **Antenna Type**.		
	(a) As Vehicular	To be mentioned	
	(b) For VHF NVIS Antenna	Full loop vehicle mounted	
	(13) Power Supply System	To be mentioned	
	(14) Transceiver Dimension (WXLXH)	To be mentioned	
	(15) Weight without battery (In KG)	To be mentioned	
	(16) Mode of Deployment	Vehicle Version	
	g. List of Standard Items (Quantity for One Set)	To be provided	
	h. List of Optional Items	To be mentioned	
3.	**Technical Specification of Wireless Set High Frequency (HF) 100 Watt (+) (Military Version) With Standard Tools and Accessories**		
	a. **General Specification**.		
	(1) Nomenclature	Radio set (HF) are preferable from the existing 'Standard' models of BD Army. Or Radio sets (HF) compatible with the offered UAV System may be proposed. In this case, Radio sets should be tested (Test and trial at no cost no obligation basis) in the environment of BD before arrival of theUAV system	
	(2) Brand		
	(3) Model		
	(4) Country of origin		
	(5) Country of Manufacturer		
	b. Name and detail contact address of Manufacturer	To be mentioned	
	c. Name and detail contact address of Principal	To be mentioned	
	d. Year of Production	Not earlier than the calendar year of production	
	e. Type and number of radio set in each vehicle	To be mentioned	
	f. **Technical Specification**.		
	(1) Frequency range	To be mentioned	
	(2) Channel Spacing	To be mentioned	
	(3) Number of Memory Channel	To be mentioned	
	(4) Number of working Channel	To be mentioned	
	(5) **Transmitter**.		
	(a) RF Power Output	Low: To be mentioned Medium: To be mentioned High: To be mentioned	
	(b) Modulation type	To be mentioned	
	(c) RF input impedance	To be mentioned	
	(6) **Receiver**.		
	(a) Sensitivity	To be mentioned	
	(b) AF Output	To be mentioned	
	(c) Squelch type	To be mentioned	

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
	(7) **Power/ Current consumption.**		
	(a) At Transmission Position	To be mentioned	
	(b) At Reception Position	To be mentioned	
	(8) **Communication Range**.		
	(a) From Regiment Command Post to GCS	Minimum 100 Km	
	(b) From Regiment Command Post to Higher Command Post	Minimum 100 Km	
	(9) Accessories required to operate – antenna, musk antenna and other accessories (should be operable from inside the vehicle)	To be confirmed	
	(10) **Features/Facilities**.		
	(a) Security Requirement	Available and must be included	
	(b) Data Service	To be mentioned	
	(c) Standard Security Feature	Available and must be included	
	(d) Optional Features (if any)	To be mentioned	
	(11) **Environmental Test**.		
	(a) Operating Temperature	As per Mil Std 810G	
	(b) Storage Temperature	As per Mil Std 810G	
	(c) Humidity	As per Mil Std 810G	
	(d) Immersion	As per Mil Std 810G	
	(e) Drop test	As per Mil Std 810G	
	(f) Shock	As per Mil Std 810G	
	(g) Vibration Proof	As per Mil Std 810G	
	(h) Dust	As per Mil Std 810G	
	(j) Splash	As per Mil Std 810G	
	(12) **Antenna Type**.		
	(a) As Vehicular	To be mentioned	
	(b) For VHF NVIS Antenna	Full loop vehicle mounted	
	(13) Power Supply System	To be mentioned	
	(14) Transceiver Dimension (WXLXH)	To be mentioned	
	(15) Weight without battery (In KG)	To be mentioned	
	(16) Mode of Deployment	Vehicle Version	
	g. List of Standard Items (Quantity for One Set)	To be provided	
	h. List of Optional Items	To be mentioned	
4.	Feature/facilities that are not mentioned above but are built in with the equipment/system	To be mentioned	
5.	Communication Link Management Diagram	To be provided	

SECTION - 5 : TRAINING SIMULATOR

Ser	Fact/Parameters	Technical Specification	To be filled by Principal/ Manufacturer
1.	**General Specification**.		
	a. Nomenclature	To be mentioned	
	b. Make	To be mentioned	
	c. Model/Type	To be mentioned	
	d. Country of origin	Group A & B Countries	
	e. Year of manufacture	Not before the calendar year of contract	
	f. Country of assembly (If different than country of origin)	Group A & B Countries	
	g. Operating sys (Original version)	To be mentioned	
	h. Version (With serial key)	To be mentioned	
	j. Warranty period	To be mentioned	
2.	**Technical Features**.		
	a. Real time simulation: Yes	To be mentioned	
	b. Realistic flight dynamics	To be mentioned	
	c. Identical flight control for UAV system	To be mentioned	
	d. Pilot console simulation	Similar to GCS monitors	
	e. Gimbal operator console simulation	Similar to GCS monitors	
	f. Trainer console	To be mentioned	
	g. Air to surface missile fire scenario training	Similar to GCS monitor	
	h. Gimbal scenario training	Similar to GCS monitor	
	j. Emergency scenario training	Similar to GCS monitor	
	k. Meteorological simulation	To be mentioned	
	l. High resolution virtual reality platform	To be mentioned	
	m. Number of monitor	To be mentioned	
	n. Number of console (Min three pilots)	To be mentioned	
	p. Computer used for simulator	Details to be mentioned	
	q. Power supply type	Details to be mentioned	
	r. Power backup option	Details to be mentioned	
3.	Computer based training facilities	To be provided	
4.	Feature/facilities that are not mentioned above but are built in with the equipment/ system	To be mentioned	
5.	Complete Resemblance to the GCS and UAV Operation	To be available	
6.	System Setup and Turn Key at designated location as provided by BD Army	To be confirmed	
7.	Requirement of all facilities, infrastructures and items	To be mentioned	
8.	Schematic Layout Diagram of the Simulator System	To be provided	