# Government of West Bengal Office of The Addl. Director General & Inspector General of Police Telecommunication, West Bengal

3 Manik Bandyopadhay Sarani, Tollygunj, Kolkata 700 040 Phone: 033-23770400/1701, Fax: 033-23110651, e-mail: telecomhqrs@gmail.com

#### Notice Inviting e-Tender No. WBPTEL/DG/eNIT-24/Wireless Stores/2019-20 Date: 01.11.2019

The Addl. Director General & Inspector General of Police, Telecommunication, West Bengal invites e-Tenders on behalf of Home Department, Government of West Bengal from the bonafide manufacturers/dealers or distributers/traders & Industrial undertaking organization etc. who has tender specific authorization (desirable) for the item in the table below:-

Sl.No.	Item	Quantity	Technical Specifications
1	High end UAV  a) Ergonomic Water-proof Back Packs b) Field Repair Kit c) Spare Lithium based Battery packs 02 Numbers. d) Spare propeller Sets e) Spare Landing Gear Sets f) Associated Cables & Mountings g) Ruggedized transportation boxes h) User, Technical & Maintenance Manual i) Log book.	02	Refer to Annexure - IV
E.M.D.		Rs. 30,000.	00 (Rupees Thirty Thousand ) only

#### **ELIGIBILITY OF BIDDERS:**

Only Manufacturers/Direct Importers/Dealers having the Tender specific authorization from OEM (Original Equipment Manufacturer) are eligible for participation in the Tender.

The event of e-filling, intending bidder may download the Tender documents from the Web Page Links "wbtenders.gov.in/nicgep/app" or "policewb.gov.in/wbp/tender.php" directly with the help of Digital Signature Certificate. Earnest Money Rs. 30,000.00 (Rupees Thirty Thousand) only have to be remitted through online. No alternative will be accepted. Necessary Earnest Money will have to be deposited by the bidder electronically: online - through his net banking enabled bank account, maintained at any bank. Bidders will get the Beneficiary details from e- tender portal with the help of Digital Signature Certificate and may transfer the EMD from their respective Bank as per the Beneficiary Name & Account No., Amount, Beneficiary Bank name (ICICI Bank) & IFSC Code. Bidders are also advised to submit EMD of their bid, at least 3 working days before the bid submission closing date as it requires time for processing of Payment of EMD. Bidders eligible for exemption of EMD as per Govt. rule may avail the same and necessary documents regarding the exemption of EMD must be uploaded in the EMD folder of Statuary bid documents.

- 2. Financial Bid is to be submitted online (both words & figures) concurrently duly digitally signed in the website: https://wbtenders.gov.in as per Date & Time schedule stated in Clause 11.
- 3. (a) A tender Bidder, after being accepted by the undersigned authority, shall be liable to supply all the items in question as per the accepted rate, for a period of one year from the date of acceptance, without any hike in the prices, whatever are the circumstantial criteria thereby.
  - (b) Conditional/incomplete bid will not be considered.
  - (c) The Bidder should quote rate for all the items mentioned in the above table considering Clause 10 also, failing which his tender will be treated as incomplete and will be cancelled.
  - (d) Tenderers should specify the address within the City of Kolkata and Phone/Mobile, Fax No./e-mail I.D. for the purpose of quick communication in the event of urgency.
  - (e) Deviation Statement (if any) may also be enclosed.
  - (f) There should be an on site manufacturing guarantee/warranty as per OEM for the item with a mention o<sup>ρ</sup><sub>u</sub> specific period.

- 4. The selected contractors shall have to deposit 5% security deposit of the total contract value of the items in favour of the Additional Director General & Inspector General of Police Telecommunication, West Bengal in G P Notes/ Bank Guarantee Bond/F.D.R. of any nationalized bank and to execute an agreement of contract within 3 (three) days from the date of issue of the work order failing which the letter of acceptance, so issued, may be treated as cancelled as well as the earnest money so deposited may be forfeited and the firm may be blacklisted. No interest would be paid on the performance Security Deposit. Payment will be made as and when fund will be available form the concerned source subject to complete supply of articles.
- 5. Orders for the supply of the approved products will be placed with the successful tenderers after the execution of the agreements, and such supply shall have to be made in such installments as may be fixed or spread over the period to be specified in the supply orders to be made in pursuance of the agreements. The successful tenderer will have to supply within the specified time schedule that had been assured at the time of selection as supplier.
- 6. Tender Specific authorization Certificate of OEM (Original Equipment Manufacturer) is desirable.
- 7. It should be noted that the firm/firms will be selected purely on a "PROVISIONAL BASIS" and the forecast requirement may increase or decrease by any quantity during the period of validity of the tender.
- 8. Addl. Director General & Inspector General of Police, Telecommunication, West Bengal reserves the right to reject any/or all the tendered rates without assigning any reason and not to place any orders even after selection and is not liable for any cost that might have incurred by any bidder at the stage of bidding and also reserves the right to, divide the contract amongst any number of tenderers, if required so.
- Addl. Director General & Inspector General of Police Telecommunication, West Bengal does not bind himself to accept the lowest rate.
- 9. Selected contractors will have to supply articles according to the indents placed with them from time to time within the specified period as per approved sample and/or the product demonstrated for inspection and evaluation, failing which the firm may be blacklisted with the forfeiture of security deposit. In the event of the non-supply of articles or if articles supplied by the selected contractors) is found to be sub-standard, the Addl. Director General & Inspector General of Police Telecommunication, West Bengal may (without notice to the contractors) purchase from elsewhere the articles required. Any loss incurred by reason of the price paid for such article(s) or any other loss or expense incurred by reason of such default on the part of the contractors may be deducted from the bills or any money payable to the contractors or from the security deposit of the concerned contractor(s). If the performance of the supplied items/equipment are found unsatisfactory or not as to our desired level even after payment, the supplier has to refund the entire amount paid to him earlier for that particular item/equipment.
- 10. Selected contractor will be bound to install and configure the base stations and arrange a comprehensive training program for the operation and maintenance of both type of sets to the end users at their own cost.

#### 11. DATE & TIME SCHEDULE:

SI. No.	Particulars	Date & Time
1	Date of uploading of NIT Documents (Online)	02.11.2019 at 1800 hrs
2	Documents download/Sell Start date (Online)	02.11.2019 at 1800 hrs
3	Date of hoisting of documents at Departmental Website "policewb.gov.in"	05.11.2019 at 1400 hrs
4	Bid submission start date (Online)	02.11.2019 at 1800 hrs
5	Pre Bid Meeting	11.11.2019 at 1100 hrs
6	Bid submission closing date (Online) 20.11.2019 at 1400 hrs	
7	Last date of submission of Earnest Money Deposit (online)	20.11.2019 at 1200 hrs
8	Technical Bid opening (Bid A)	22.11.2019 at 1400 hrs
9	Date of uploading list of technically qualified bidders	To be notified later
10	Date for opening of Financial Proposal (Bid B) (Online)	To be notified later
11	Date of uploading list of bidders along with the approved rates	To be notified later

- **12. Bid opening Location:** Office of the Director General & Inspector General of Police, Telecommunication, West Bengal, 3 Manik Bandyopadhyay Sarani, Tollygung, Kolkata 700 040.
- 13. Canvassing on the part of tenderers will render his tender to cancellation summarily.
- 14. For any clarification and collection/verification of sample regarding Specifications of the Tender, Tenderers are requested to contact with DySP (Technical), Telecommunication Hqrs., 3 Manik Bandyopadhyay Sarani, Tollyguni, Kolkata 700 040.

**NB:** Any inconsistencies in the descriptions may be expeditiously brought to the notice of the Tendering authority.

#### **INSTRUCTIONS TO BIDDERS**

#### **GENERAL GUIDANCE FOR e-TENDERING:**

Instructions/ Guidelines for electronic submission of the tenders have been annexed for assisting the contractors to participate in e-Tendering.

#### I. <u>REGISTRATION OF THE CONTRACTOR:</u>

Any contractors willing to take part in the process of e-Tendering will have to be enrolled & registered with the Government e-Procurement System, through logging on to https://wbtenders.gov.in (the Web Portal of Public Works Department) the contractor is to click on the link for e-Tendering site as given on the web portal.

#### II. <u>DIGITAL SIGNATURE CERTIFICATE (DSC):</u>

Each Contractor is required to obtain a Class-II OR Class-III Digital Signature Certificate (DSC) for submission of tenders for the approval service of the National Informatics Centre (NIC) on payment of requisite amount. Details are available at the website stated in Clause-I above DSC is given as a USB e-Token.

**III.** The contractor can search & download N.I.T. & Tender Document(s) electronically from computer once he logs on to the website mentioned in clause-I using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

#### **IV.** SUBMISSION OF TENDERS:

Tenders are to be submitted through online to the website stated in Clause-I in two folders at a time for each work, one in Technical Bid & the other is Financial Bid before the prescribed date & time using the Digital

Signature Certificate (DSC). The documents are to be uploaded virus scanned copy duly Digital Signed. The documents will get encrypted (transformed into non readable formats).

#### V. <u>PENALTY CLAUSES:</u>

PENALTY FOR FORMATION OF CARTEL OR FURNISHING OF FRAUDULENT / MISLEADING DOCUMENTS: If during the tender process or at any state during the validity of the tender period, it is found that a Tenderer(s) has formed a cartel in what so ever from or name to fix up the rates or suppliers to the detriment of the fairness of the tender process, penal measures shall be initiated. Similar penal measures shall also be initiated against those tenders who have submitted false / misleading / fraudulent documents or made incorrect declarations. The penal measure will be forfeiture of Earnest Money, Forfeiture of Performance Bank Guarantee if enlisted as a supplier.

- VI. (i) Accepted Materials should be supplied within 10 (ten) days after getting supply order.
  - (ii)) Order will be placed on availability of fund.

#### VII. TECHNICAL PROPOSAL:

The Technical proposal should contain scanned copies of the following in two covers (folders).

(a) Statutory Cover containing the following documents:

(1) NIT (2) EMD (3) AGREEMENT PAPER (AS ANNEXTURE-III) (4) TECHNICAL SPECIFICATIONS & WARRANTIES AS PER OEM

#### (b) Non-statutory Cover containing the following documents:

THE ABOVE STATED NON-STATUTORY/TECHNICAL DOCUMENTS SHOULD BE ARRANGED IN THE FOLLOWING MANNER:-

Click the check boxes beside the necessary documents in the My Document list and then click the tab "Submit Non Statutory Documents" to send the selected documents to Non-Statutory folder.

Next Click the tab "Click to Encrypt and upload" and then click the "Technical" Folder to upload the Technical Documents.

SI. No.	Category Name	Sub-Category Description	Detail(s)
A	Certificate(s)	Certificate(s)	GST Registration, Trade License, Income Tax/PAN, Letter of Authorization/DPL (Dealer Possession License)/OEM (Original Equipment Manufacturer), Latest P.Tax (Challan).
В	Company Detail(s)	Company Detail	Proprietorship Firm (Trade License) Partnership Firm (Partnership Deed, Trade License), Ltd. Company (Incorporation Certificate, Trade License) Society (Society Registration Copy, Trade License) Power of Attorney.
С	Credential	Credential - 1	Similar nature of work done & completion certificate, which is applicable for eligibility in this tender.
D	Returns	Income Tax	Last 3 Financial Year's of Income Tax i.e. for 2015-16 2016-17 & 2017-18
SI. No.	Category Name	Sub-Category Description	Detail(s)

NOTE: BLACK & WHITE SCAN, MULTIPAGE SCAN, DPI MAX 200-300  $\,$ 

#### I. FINANCIAL PROPOSAL:

- (a) The contractor is to quote the rate for all the items online through computer in the space marked for quoting rate in the BOQ (Bill of Quantities). *The Quoted Rate should not be higher than printed MRP*.
- (b) If any contractor is exempted from payment of EMD, copy of relevant Government Order needs to be furnished.
- (c) The financial proposal should contain the following documents in one cover (folder) i.e., BOQ (Bill of Quantities).
- (d) Only downloaded copies of the above documents are to be uploaded virus scanned & Digitally Signed by the contractor. If any tenderer fails to produce the original hard copies of the documents like Completion Certificates and any other documents on demand of the Tender Evaluation Committee within a specified time frame or if any deviation is detected in the hard copies from the uploaded soft copies, it may be treated as submission of false documents by the tenderer and action may be referred to the appropriate authority for prosecution as per relevant IT Act.

#### **OPENING & EVALUATION OF TENDER:**

- 1. Opening of Technical Proposal: A Committee comprising of Superintendent of Police, Deputy Superintendent of Police, and a team of Technical officers of Telecommunication West Bengal will open the Technical bid of the Tender.
- 2. Intending Tenderers may remain present if they so desire.
- 3. Cover (folder) for Statutory Documents will be opened first and if found in order, cover (folder) for Non-Statutory Documents will be opened. If there is any deficiency in the Statutory Documents the tender will summarily be rejected.
- 4. Decrypted (transformed into readable formats) documents of the non- statutory cover will be downloaded & handed over to the Tender Evaluation Committee.
- 5. Summary list of technically qualified tenderers will be uploaded online.
- 6. Pursuant to scrutiny & decision of the Tender Evaluation Committee the summary list of eligible tenderers & the serial number of work for which their proposal will be considered will be uploaded in the web portals.
- 7. During evaluation, the committee may summoned of the Tenderers and seek clarification/information or documents or original hard copy of any of the documents already submitted and if these are not produced within the stipulated time frame, their proposals will be liable for rejection.

#### II. REJECTION OF BID:

The Addl Director General & Inspector General of Police Telecommunication, West Bengal reserves the right to reject any/or all the tendered rates without assigning any reason and not to place any orders even after selection and is not liable for any cost that might have incurred by any bidder at the stage of bidding and also reserves the right to divide the contract amongst any number of Tenderers if required so and to place order for more or less than the quantity mentioned in the forecast requirement. The Addl Director General & Inspector General of Police, Telecommunication, West Bengal does not bind himself to accept the lowest rate.

#### III. AWARD OF CONTRACT:

The Bidder whose Bid has been accepted will be notified by the Tender Inviting & Accepting Authority through acceptance letter / Letter of Acceptance both online & offline to save time. The notification of award will constitute the formation of the Contract. The Agreement in prescribed format in admissible stamp duties will incorporate all agreements between the Tender Accepting Authority and the successful bidder/bidders. The time frame for attending the fault and restoration of equipment within the warranty period and penalty clause for the defaulters will be included in the agreement. All the tender documents including N.I.T. & B.O.Q. will be the part of the contract documents. After receipt of Letter of Acceptance, the successful bidder

shall have to submit requisite copies of contract documents downloading from the website stated in the N.I.T. along with requisite cost through Demand Draft issued from any nationalized bank in favor of Director General & Inspector General of Police Telecommunication, West Bengal for the concerned work within time limit to be set in the letter of acceptance.

- IV. All bidders will have to give demonstration after successful documentation clearance of their product for competing in technical bid. The financial bid of vendors who failed to give successful demonstration during technical evaluation will not be considered.
- V. L1 Bidder will arrange training programme for 07 (Seven) days at WBP Telecom Hqrs or at the District / Unit Head Quarter and issue certificates to trained staffs after due training completion.
- VI. L1 Bidder should arrange repair the aulty UAV within 07(Seven) days on site, failing which demurrage at the rate 0.1% of value of product will be imposed per month.

Payment Terms: After receipt and satisfactory testing of the equipment.

#### IV. VALIDITY PERIOD:

The contract period will be up to November' 2020.

Sd/-Addl. Director General & Inspector General of Police Telecommunication, West Bengal

# FORMAT FOR CHECK LIST

Sl.No.	Items	Pl mark ✓		Page No.
1	Application submitted in Annexure - I	Yes	No	
2	Annexure - II (Authorization letter of signatory from	Yes	No	
	the Company)			
3	Annexure - III (Copy of agreement between the	Yes	No	
3	manufacturer and the Distributor)			
4	Copy of PAN Card / GST registration certificate Yes No			
	Copy of Demand Draft/Pay order as applicable in	Yes	No	
5	favour of the Addl. Director General & Inspector			
3	General of Police Telecommunication, West Bengal -			
	as Earnest Money			
6	Last 3 financial years' Balance Sheet, i.e., for 2015-16	Yes	No	
0	2016-17 & 2017-18			
7	Credential for Supply of equipment & completion certificate, to	Yes	No	
	any State Police / CPMF of India			

## Annexure - I

### **APPLICATION FORMAT**

(To be furnished in the Company's official letter pad with full Address and Contact No., etc.)

To: The Addl Director General & Inspector General of Police **Telecommunication**, West Bengal 3 Manik Bandyopadhyay Sarani Tollygunj, Kolkata 700 040

Sub: NIT for Wireless Stores at Office of the Addl. Director General. & Inspector General of Police

Telecommunication, West Bengal, 3 Manik Bandyopadhyay Sarani, Tollygunj, Kolkata 700 040.
Ref:
Sir,
Having examined the pre-qualification & other documents published in the NIT, I/we hereby submit all the necessary information and relevant documents for evaluation:
1. That the application is made by me / us on behalf of
2. We accept the terms and conditions as laid down in the NIT mentioned above and declare that we shall abide by it for throughout the tender period.
3. We are offering rate for all the item /items and assured supply to the West Bengal Police Telecommunication, Government of West Bengal as mentioned in Page-1.
4. (a) We propose that the order and bill should be raised in our name. For liaisoning, we have appointed M/s
mail address) as C&F agent /Liaisoner /Contact person/ Others (strike out whichever is not applicable) as per clause of the NIT OR
(b) We propose that order and bill should be raised in favour of our authorized Distributor. For that purpose, we have appointed M/s
(c) The agreement between ourselves and the distributor/ $C\&F/Liaisoner \& other documents as prescribed is attached in annexure III .$
5. In the event of being selected, supply will be made within the stipulated period excepting the condition which is beyond our control.
<ul><li>6. We understand that:</li><li>(a) Tender Selection Committee can amend the scope &amp; value of the contract bid under this project.</li><li>(b) Tender Selection Committee reserves the right to reject any application without assigning any reason.</li></ul>
Date:- Signature of applicant including title. and capacity in which application is made. Telephone No.: Mobile No.: e-Mail Address:

# Annexure - II

Authorization letter from Company for authorized signatory.

## Annexure - III

Copy of agreement signed between tenderer and the distributor etc
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## Annexure - IV

# <u>Technical Specification for High End Unmanned Aerial Vehicle</u> (UAV) System

## 1. UAV systems should consists of the following sub-systems.

- a) UAV with battery pack
- b) Ground control station with data link equipment
- c) Daylight camera payload
- d) Night camera payload
- e) Universal battery charger with power supply system

### 2. UAV characteristics

Sl No	Parameter	Specifications
2.1	Role	Surveillance, reconnaissance and detection during day and night
2.2	Launch and recovery mode	<ul> <li>i) Vertical take-off and landing (VTOL) from within and area of 25m X 25m clearing or less.</li> <li>ii) Payload should not damage during recovery of UAV</li> </ul>
2.3	Aural Signature	< 40dbs at 300 meters
2.4	Payloads carrying capability	Should have capable to carry electro Optic(EO) for day and Thermal Imager (TI) for night one at a time
2.5	Flight Modes	a) Fully autonomous vertical take off b) Fully autonomous vertical landing c) Hover at defined waypoint (position hold better than 25m) d) Autonomous waypoint navigation (Pre-defined as well as dynamically adjustable waypoints during flight) e) Remote piloted mode for video based user navigation f) Vision based autonomous target tracking of fixed and moving targets g) Should be controllable in real time from the GCS up to recovery h) Fully autonomous and stabilized
2.6	Endurance	45 minutes or more with all payloads at mean sea level
2.7	Operating Altitude	(350-450) m AGL (Above Ground Level) or more
2.8	Max Launch Altitude	(1500-2500) m AMSL (Above Mean Sea Level)
2.9	Range of Operation	Minimum 4km line of sight or more.
2.10	Cruise Speed	20 km/h or more
2.11	Operating wind condition	a) Take off: 20km/h or more b) Landing: 20km/h or more c) Operate: 20km/h or more
2.12	Failsafe features	<ul><li>a) Return to Home on communication failure</li><li>b) Return to Home / Land on low battery</li><li>c) Multiple GPS on-board for GPS failure redundancy</li><li>d) Human error in operation</li></ul>
2.13	Propulsion system	Electrical with rechargeable batteries

# 3. Payload characteristics:

Sl No	Parameter	Specifications
3.1	Payloads required	a) Electro Optic (EO) for day (colour)
		b) Thermal Imager (TI) for night
		c) Combined in single payload or different payloads for day
		and night
3.2	Payload and	a) All payloads should be gimbals stabilized on-board
	Video	b) Video output should be digitally stabilized at all zoom levels
	Stabilization	c) Quality of video should not be affected by UAV vibrations
3.3	Electro optic	a) Colour Camera with 360° pan and 90° tilt control
	(EO) Daylight	b) Resolution: 1280 X 720 pixels or better
	Payload	c) Optical Zoom: 10x zoom with minimum FOV 5 ° or less
		Additionally, 4x digital zoom. Max FOV: 45° (wide field)
		d) Should be able to detect Human size target at 600m or more
3.4	Thermal Imager	a) Thermal Camera with 360 ° pan and 90 ° tilt control.
	(TI) Night	b) Resolution: 640 x 480 pixels or better
	Payload	c) White/Black Hot modes
		d) Digital Zoom: 4X or more
		e) Should be able to detect human size target at 300m or more
3.5	Night Recovery	Switchable (from GCS) LED light when operating with Night
	Beacom	Payload

# **4. Ground Control Station Characteristics:**

Sl No	Parameter	Specifications
4.1	GCS should have N	MIL-STD-810 and IP65 rugged, water and dust resistant design for
		ork freely in nearly and environment, top with a multicolour, anti-
	glare, sunlight read	able
4.2	Computing Hardwa	nre:
	CPU	Intel core i5 v pro processor, 1.9 Ghz or better
	Storage	At least 200 GB
	Memory	2GB or more
	Display	10 inch – 1024 x 768 VGA sunlight viewable
	Audio	Integrated speaker
	Key board and	Touch screen
	input	
4.3	Battery operation	Minimum 2 hrs at peak utilization
4.4	Data portability	Ports for data transfer to external secondary storage devices
4.5	Interface	VGA , head phone / speaker , microphone / line – in serial , USB
		, IEEE 1394a, 10/100/1000 Ethernet
4.6	Capability	a) Transmit control commands to UAV
		b) Receive UAV flight and propulsion parameters
		c) Receive, display and record real time day and night VIDEO
		form UAV
		d) Capability to control UAV while on the move
		e) live streaming option for control Room from the flying
	~~~	location.
4.7	GCS Application	a) Geographic Map along with UAV location, UAV trajectory,
	Software	camera view polygon, waypoints and flight plan
		b) Real-time video from the UAV with on-screen display of
		important parameters like UAV co-ordinates, target (payload)
		co-ordinates and range from UAV, true North indication etc.
		c) Geographic map and real-time video should be displayed at all
		times during the flight

		d) Geographic map and real-time video views should be resizable
		and / or switchable to allow user to switch between hig map/small
		video and small map/big video views through a single click /
		button input
		e) Artificial Horizon indicating UAV attitude
		f)
4.8	Map Formats	a) Should have the capability to integrate geo-referenced raster
		maps provided in at least one of the commonly used digital map
		formats (gif, tiff etc.)
		b) Should be able to work with Google Maps, application should
		have the capability to download maps automatically after
		specifying location GPS co-ordinates. Preloaded high resolution
		Google maps.
4.9	Payload Controls	a) Selection and switch on/off of payload
		b) Pan/Tilt/Zoom Controls
		c) Paint payload to ground co-ordinate function
		d) Recording on/off
		e) Switch on/off Night Recovery Beacon
4.10	Video	a) Video should be recorded in any commonly portable video
		formats (AVI,MPEG,MP4 etc.)
		b) Video of the full flight should be recorded
		c) Should have capability to take image snapshots at any time
		during flight
		d) Software should be provided that will facilitate extraction of
		imagery from the recorded video post flight
4.11	Pre-flight checks	Self-test of UAV system, Output: go/no go

## 5. Communication Link: -

5.1	Communication	a) Transmit control commands from GCS to UAV
	Link Equipment	b) Transmit Parameter of UAV and Payload to GCS
	capability	c) Transmit Day and Night video from UAV to GCS
5.2	Type of Link	Secured digital uplink and downlink with AES encryption
5.3	Frequency BAND	System should operate on UHV frequency band uplink and
		downlink, preferably on license free band between (2-6)GHz

# 6. General System Requirements:-

	1	
6.1	Size	a) Length and width (maximum 120cm X 120 cm)
		b) Height ( maximum 60cm)
6.2	Weight	The weight of complete micro UAV bird including battery
		pack and one payload should be less than 4Kg
6.3	Assembly/Disassembly	Less than 10 minutes each
	time	
6.4	Life of UAV	The total technical life of micro UAV should not be less than
		500 landings
6.5	Environmental	The UAV and associated systems should be certified for
	conditions for	operation and storage for following environment conditions
	operation and storage	a) Damp Heat: (30-40) ° C at RH not less than 95%
		b) Operating Temperature and storage Temp: - 10 ° C to +55
		°C
		c) Ability to withstand dust, drizzle and humid conditions
6.6	Portability and	The UAV should be battery operated portable, light in
	operation	weight, compact, for day and night surveillance, capable of
		being carried and operated by two men
6.7	Battery	The intelligent standard Lithium based battery pack should
		have the backup of minimum 50 Minutes
6.9	WARRANTY	On site servicing including free parts replacement for 3yrs.