## **TENDER DOCUMENT FOR**

## PROCUREMENT OF THE ITEMS AT NESAC

- 1. HEXCOPTER FRAME
- 2. HALO 2000W GENERATOR
- 3. T-MOTOR U8 LITE KV 85 MOTORS
- 4. T-MOTOR FLAME 60 A ESC
- 5. DIAMOND-2995 PROPELLERS
- 6. FUEL TANK
- 7. DJI A3 PRO FLIGHT CONTROLLER
- 8. CUAV P9 900MHZ RADIO TELEMETRY
- 9. DA16S+RADIO CONTROLLER
- 10. EXPANSION MODULE FOR DJI
- 11. GPS FOLDING ANTENNA MOUNT HOLDER
- 12. 6S 5000MAH BATTERY
- 13. LIQUID LEVEL SENSOR
- 14. BI-FOCUS 10X OPTICAL ZOOM CAMERA
- 15. H-RTK F9P GNSS SERIES GPS
- 16. CUAV X7 Pro Flight Controller
- 17. TF SINGLE POINT SERIES LIDAR 180M
- 18. TF SINGLE POINT SERIES-40M
- 19. MAUCH 076
- 20. MAUCH 076
- 21. HERELINK-HD VIDEO TRANSMISSION SYSTEM
- 22. VDC-15 LONG RANGE
- 23. MAUCH 085
- 24. MATEK FCHUB-12S PDB
- 25. LG INR21700 M50 5000 MAH BATTERY

मई /MAY, 2022

भारत सरकार/Government of India अंतरिक्ष विभाग/Department of Space उत्तर-पूर्वी अंतरिक्ष उपयोग केंद्र/North Eastern Space Applications Centre उमियम/Umiam-793103, मेघालय/Meghalaya

# भारत सरकार/Government of India अंतरिक्ष विभाग/Department of Space

# उत्तर-पूर्वी अंतरिक्ष उपयोग केंद्र/North Eastern Space Applications Centre उमियम/Umiam-793103, मेघालय/Meghalava

फैक्स/Fax: 0364-2570139 फोन/Tel.: 0364-2570036 ईमेल/Email: purchase.nesac@nesac.gov.in

## निविदा आमंत्रण सचना / NOTICE INVITING TENDER

निदेशक एनई ठेकेदारो आदि,फर्मो,प्रतिष्ठित सेवा प्रदाताओ,सैक उमियम मेघालय-से निम्नलिखित के लिए दो बोली में मोहरबंद प्रस्तावों को आमंत्रित करते हैं/Director, NESAC, Umiam, Meghalaya invites sealed offers in two bids from reputed Service Providers, Firms, Contractors etc for the following

एनआईटी सं. / NIT No.	कार्य का नाम / NAME OF THE WORK	इएमडी(₹) डीडी के रुप में <i>।</i> EMD (₹) IN THE FORM OF DD	निविदा शुल्क / TENDER FEE (₹)
NESAC/1419/2022	वस्तुओं की आपूर्ति /Supply of the items [Hexcopter frame, Halo 2000W Generator, T-Motor U8 Lite KV 85 Motors, T-Motor Flame 60 A ESC, Diamond-2995 Propellers, Fuel Tank, DJI A3 Pro Flight Controller, CUAV P9 900MHZ Radio Telemetry, DA16S+Radio Controller, Expansion Module for DJI, GPS Folding Antenna Mount Holder, 6S 5000mAh Battery, Liquid Level Sensor, Bi-Focus 10X Optical Zoom Camera, H-RTK F9P GNSS Series GPS, CUAV X7 Pro Flight Controller, TF Single Point Series LiDAR 180m, TF Single Point Series-40m, Mauch 076, Mauch 076, Herelink-HD Video Transmission System, VDC-15 long range, Mauch 085, Matek FCHUB-12S PDB, LG INR21700 M50 5000mAh battery]	₹77000/-	₹500/-

निविदा दस्तावेजो के विक्रय का दिनांक/ Dates for selling of tender documents: 12.05.2022 to 08.06.2022

निविदा दस्तावेजो को जमा करने की अन्तिम तिथि व समय/Last date & Time for submission of tender documents : 08.06.2022 upto 1330 Hrs.

निविदा खोलने की तिथि, समय व स्थान/ Date, Time & Venue of Bid Opening: 08.06.2022 at 1500 Hrs at एनईसैक, उमियम/NESAC. Umiam

#### **Instructions to Tenderers:**

- For full details and terms and conditions etc., please see the enclosed Annexures
- 2. Tender documents can be obtained from the Purchase Officer, NESAC, Umiam.
- Tender Fee shall be paid in form of CROSSED Demand Draft only. The Demand Draft should be in favor of Director, NESAC drawn on State Bank of India, Umiam (branch Code 2010). The Tender Fee is NON-REFUNDABLE. Your request letter along with Tender Fee may be addressed to the Purchase Officer as indicated above.
- Interested tenderers may, at their option, download the tender documents from the NESAC website www.nesac.gov.in and submit the Tender Document along with the prescribed tender fee as per details given in the tender notification.
- While requesting for Tender Documents, please superscribe on the cover as "Request for Tender document against Tender Notice No. NESAC/1419/2022
- Tender Document received after the due date/time will not be considered.
- While sending sealed quotation/offer superscribed respective Tender Number and Due Date on the envelope.
- NESAC, UMIAM is not responsible for any postal delays/loss of documents in transit.
- If the date specified for submission/opening of tenders is declared as a holiday abruptly, the due date for submission/opening of the tenders in such cases shall be postponed automatically to the next working day.
- 10. Director, NESAC reserves the right to accept or reject any/or all the quotations/Expression of Interest in part or full.
- 11. Tenderers or their Authorized Representative may attend to witness the Tender opening, only on production of Covid Vaccination Certificate & Authorization Letter. Due to Security reason, only one Representative from each Tenderer will be allowed for the above purpose.
- 12. All pages forming part of the tender documents should be duly signed, stamped and submitted to NESAC. Pages not signed and stamped will be considered invalid and rejected.

Sd/-निदेशक, एनईसैक / Director NESAC

Dated: 11.05.2022

1. **Scope of the work:** North Eastern Space Applications Centre (NESAC) under Department of Space, Government of India-793103 is looking for supply of the following items at NESAC with Minimum specifications of the proposed items as per details below.

### **Technical specifications of items**

Sl. No.	Item	Specification
1	Hexcopter frame	<ul> <li>Material: carbon fiber/glass fiber</li> <li>Frame weight: less than 15 kg</li> <li>Frame size: 1600mm or less</li> <li>MTOW: 22 kg or less</li> <li>Payload: 5kg or more</li> <li>Flight endurance: 1 hr + with given items in this tender along with 5 kg payload</li> <li>The frame should have sufficient space to house 7L fuel tank supplied along with space for payload mount</li> </ul>
2	Halo 2000W Generator	<ul> <li>Weight: 4.5 kg or less</li> <li>Start: one key electric start/through PWM signal</li> <li>Real time status monitoring</li> <li>Power Output: 1.5-2 kw continuous, 2-2.5 kw (max)</li> <li>Voltage: 48V</li> <li>RPM: 12000r/min</li> <li>Size: 283x272x264mm</li> <li>Fuel consumption: 700g/kw.h or less</li> <li>Applicable UAV types: Multicopter</li> <li>Recommended Max take-off Weight: 22 kg</li> <li>Service Altitude: &lt;2km</li> <li>Start Method: One key starting (PWM or CAN-BUS)</li> <li>Service Life: 300Hours or more</li> <li>Maintenance Cycle: 50 Hours or less</li> <li>Service temperature: -20 ~ 40°C</li> </ul>
3	T-Motor U8 Lite KV 85 motors	<ul> <li>Diameter(mm): 87.1</li> <li>Height(mm): 27.05</li> <li>Shaft Diameter (mm): 15</li> <li>Configuration: 36N42P</li> <li>Lead Spec: 90mm</li> <li>Ingress Protection Level: IP35</li> <li>Accessories: <sup>φ</sup>32*10*3mm CPC*1, m3*12mm Screw for propeller installation*4, <sup>φ</sup>11*14.5 locating pin*1, M4*12mm Screw for motor installation*4</li> <li>KV: 85</li> <li>Weight (g): 243</li> <li>Idle Current (A);@18V (A): 0.5</li> <li>Internal Resistance (mΩ): 225±5</li> <li>Propeller: 28*-29*</li> <li>Volts: 12s Lipo</li> <li>Max Current (A): 2</li> <li>Max input Power/W: 960</li> </ul>
4	T-Motor Flame 60 A ESC	<ul> <li>Con. Current: 60A</li> <li>Peak Current (10s): 80A</li> <li>Battery supported: LiPo (6-12S)</li> <li>Weight: 73.5g</li> <li>Size: 66.5*38.5*17.7mm</li> </ul>

5	Diamond-2995	Material : Carbon Fiber
	Propellers	Lenght: 29inch
		• Pitch : 9.5
		Single Weight: 114g
		• 1x10mm hole in the center
		8x3mm hole around the center hole
		oxomin note around the center note
		or
		Model: T-Motor
		<ul> <li>Diameter/pitch: 29 inch X 9.5 inch fixed or equivalent foldable</li> </ul>
		Weight: up to 73g / each blade
		Compatibility: T-Motor U8 lite 230 KV and others
6	Fuel tank	Capacity: 7L
		Dimensions: 275X245X115 mm
		<ul> <li>Material: High grade plastic/carbon fiber or better</li> </ul>
		<ul> <li>Should be easily integrable with above frame</li> </ul>
		Fuel required to be stored: Petrol/Gasoline
7	DJI A3 Pro flight	Triple Modular Redundancy
	controller	Precision controls with fault tolerance
		<ul> <li>Compatible with D-RTK GNSS, Smart ESCs, Intelligent batteries, and</li> </ul>
		Lightbridge 2
		DJI SDK Compatibility
		Power consumption: Max 16 W
		Weight: 370 gm
		<ul> <li>Supported Multirotor: I4, X4, I6, X6, Y6, I8, X8, V8</li> </ul>
		Recommended battery: 3-12S Lipo
		Operating temp: -10 to 45 deg
		Max wind resistance: <10 m/s
		SDK: Mobile SDK/onboard SDK
		SDK port: API/CAN2
8	CUAV P9 900MHZ	Spreading Method: Frequency Hopping
	Radio Telemetry	<ul> <li>Forward Error Detection: Hamming/BCH/Golay</li> </ul>
	Wireless	Error detection: Error detection 32 bits of CRC
	Transmission	• Range: 40-50 km
	Module	Output power: 100 mw-1w
		Serial interface: 3.3V CMOS TTL
		<ul> <li>Serial baud rate: up to 230 kbps, asynchronous</li> </ul>
		Operating temp: -10 to 45 deg
		Accessories included: 2 X P9 radio, 1X3-12S power supply module, 2X
		900 Mhz antenna, 1X Micro USB cable, 1X Pixhawk data cable
9	DA16S+ Radio	Transmission distance : 8km
	Controller	Working Frequency: 2.4 Ghz
		Transmitting radio power : 27dbm
		• Channels: 16
		• Weight: 610g
		Battery supported : 4000mAh 1S LiPo
10	Expansion Module	Compatibility: with A3 and A3 pro
	for DJI Flight	Supported accessories: long range video and data transmission system,
	Controller	Gimbal and Zoom camera, RTK system etc.
l		Weight: less than 150 gms

		,
11	GPS Folding	<ul> <li>Tube size: inner diameter 17mm; outer diameter 18mm; tube</li> </ul>
	Antenna Mount	length:160mm
	Holder for given	Foldable, Flat head
	GPS & frame	Material: carbon fiber/Metal
12	6S 5000mAh	Voltage : 22.2V
	Battery	Capacity: 5000mAh
	-	• Energy(wh): 110.0Wh
		Cell Configuration : 6S1P
		Power connector : XT-90
		Weight: 736g
		Max cont. Discharge : 35C
13	Liquid Level Sensor	
13	Liquid Level Sellsol	11 6 1
		• Power Supply: DC 3-6V
		• Dimension: 60x35x25mm
		Range: 30cm water or other liquid comparable
		• Output: 5V 50Hz PWM, )%-1100us 100%-1900us
L		Precision: 5%
14	Bi-Focus 10 X	Camera type: Dual RGB and thermal with 3 axis stabilized gimbal
	optical Zoom	Weight: 500g
	camera 320 X 240	• Size: 108x100x125mm
	IR thermal camera	<ul> <li>Working condition: -10*C to +45*C/20% to 80% RH</li> </ul>
	with 3-axix Gimbal	<ul> <li>Storage condition: -20*C to +60*C/20% to 95% RH</li> </ul>
		<ul> <li>Voltage: 3S or ^S (DC 12V-26V)</li> </ul>
		Power: Dynamic 12W
		• Pitch: ±120*
		• Yaw: ±150*
		• Control precision : ± 0.02* Yaw: ±0.03*
		• Sensor type: ½" CMOS sensor for RGB and NETD: < 65mk@30 degree
		Celsius
		Number of pixels (effective): 4 Mp or more for RGB and 320x240 or
		more for thermal camera
		Lens type : Bi-focus adjustable
		Focal Length (F=): f=4.9mm to 49mm
		9 ' '
		Optical zoom: Up to 10X  Clear in a second sec
		Clear image zoom
		Transmit power and distance : 23dbi, 15KM
15	H-RTK F9P GNSS	UBLOX F9P module
	series GPS with	Multi-band RTK with faster convergence times
	helical antenna	4 Concurrent GNSS
		Helical Antennas
		Centimeter_level accuracy
		Fully compatible with Pixhawk series flight controller
16	CUAV X7 Pro flight	Weight: 106g
	controller with Neo	• Dimension : 77*45.5*39mm
	3 Pro GNSS	<ul> <li>Operation temperature : -20*C to 80*C</li> </ul>
		Main FMU Processor: STM32H743
		• Power: 4.3-5.4V
		• UUSB input : 4.75-5.25V
		Servo rail input: 0-36V
17	TF Single Point	• FOV: 0.5*
1/	Series LiDAR-180m	
	PELIES FIDAY-100III	Weight: 77g±3g      Page 2 0 1m 100m
		• Range: 0.1m-180m
		Frame rate: 1Hz-1000Hz
		Distance resolution: 1cm
		Output : single point
		Protection level : IP67
		Communication interface : UART

10	mn o: 1 n :	
18	TF Single Point	• FOV: 3*
	Series LiDAR-40m	Weight: 50g
		• Range: 0.1m-40m
		Frame rate : 1-1000Hz
		Distance resolution : 1cm
		Output : single point
		Protection level : IP65
		Communication interface : UART
19	Mauch 053: Power	<ul> <li>Power cube 3 "V3" with 3 outputs 2x5.3V / 10A + 1x12.2V / 10a</li> </ul>
	Cube 3/V3	Input voltage 4-14S max. 60V
	(PC3/V30)-PDB	imput volumes 1 110 main 00 y
20	Mauch 076: HS-200-	200A- Current measurement sensor board, based on Allegro hall sensor
	HV, 200A Sensor	ACS-200U
	,	Voltage reading of the lipo is optimized for upto 14S Lipo packs
		Connected to the sensor are 2x10cm AWG10 wire
		The board comes with 10cm connection cable (DF-13-6p)
21	Herelink -HD Video	Processor: Pinecone S1 AP SoC 4 x Cortex A53@2.2GHz (big cores)
21		,
	transmission system	• GPU: 4 core Mali- T860
		Storage: eMMC 4GB  Productive (100M)  A construction of the c
		Bandwidth: 20MHz / 10MHz
		Transmission Range: FCC 20km CE / SRRC 12km
		<ul> <li>Minimum Latency: 110ms (from input source to ground control screen</li> </ul>
		display)
		<ul> <li>Video Resolution: 720p@30fps/1080p@30/60fps</li> </ul>
		Operating Frequency: 2.4 Ghz (ISM band)
		Receiver sensitivity: -99dBm@20MHz BW
		• Interference recovery: < 1s
		Average Power Consumption: <4 W
22	VDC-15 long range	• Frequency: 2.4GHz(2408-2480)
	video/data/RC	Modulation : OFDM
	transmission system	Transmitting Power: Max. 25dBm
	with 15 km range	Bandwidth: 10MHz/20MHz
	and 2.4 Ghz feq	Data input : UART/SBUS
	and arr dila req	
		Data output : UART/SBUS  Paralytica 1000P@C05  10
		• Resolution: 1080P@60fps
		• Voltage : DC9-28v
		Transmission Distance : 15km or more
		Weight: 98.5g(air unit); 121.4g(ground unit)
23	Mauch 085: 4-14S	Input: 4-14S, Lipo/max 60V
	BEC (HS)	• Output: 5.3V/3A
		Weight: <20gms
		Dimensions: 54X21X14 mm
24	Matek FCHUB-12S	Input voltage range: 8-60V (3s-12S LIPO battery)
	PDB with 440A	• Current: 4x60A continuous, 4X110A burst
	Current Sensor &	• Out-1: 3.3V, 5V,12V (Adjustable)
	Dual BEC for X Class	• Efficiency: up to 95%
	Quad	• Size: 55x50x6mm
	-	Weight: 21g
		• LED indicators: 5V, 12V
25	LG INR21700 M50	• Current sensor: 440A, 3.3V ADC, scale 75
45		• Capacity: 5000mAh
	5000mAh (1c) LI-	• Weight: 67g
	ION BATTERY	Output Voltage(VDC): 3.6
		Charge rate (C): 1
		• Height: 70.15mm
1		Diameter: 21.10mm
		Max. Charge rate : 4.2

# 2. Eligibility of the bidders:

Sl. No.	Eligibility of the Bidders
1	The bidder should have experience of supplying similar items to other government departments in the last three years. Supporting documents in this regard may be provided.
2	The bidder should have minimum turnover of ₹ 40 lakhs in each of the last three financial years. Supporting documents in this regard may be provided.
3	The vendor has to be authorized dealer of all the components preferably or at least has to be authorized dealer of T-Motor and Herelink products in India and maintain sufficient stock to provide quick replacement of faulty products during warranty period. Relevant documents in this regard may be submitted.
4	The vendor should provide WPC clearance of relevant products such as Herelink, telemetry etc. Relevant documents in this regard may be submitted.
5	The Bidder should not have been blacklisted in any Government/ Government undertaking/Public sector companies. A self –declaration letter by the Bidder, on the company's letter head should be submitted along with technical bid.
6	The bidder should participate as a single party and no consortium is allowed.
7	The copies of valid registration/incorporation certificate of the firm(s) along with the copies of relevant documents.
8	If the bidder is a dealer / distributor of the principal company / OEM, Bidder should submit Valid Authorization Certificate from OEM. The authorization certificate and propriety certificates must be attached with the offer.
9	Bidder should submit Purchase orders and /user List as a proof of the dealing with other Government organizations/Institutions. The date of the supply order should be within last three years from the date of publishing the BID.
10	MAKE IN INDIA (MII) CONDITIONS:  For this procurement, bids from Class I & class II Local Suppliers are admissible. Hence provisions contained in Public Procurement (Preference to Make in India), Order 2017 issued by Department for Promotion of Industry and Internal Trade (DIPP), Ministry of Commerce & Industries vide letter No. P45021/2/2017 PP(BE II) dated 04.06.2020 and subsequent amendment & directives shall be followed. Accordingly, offer will be evaluated & processed in conformation with above referred GOI order (Specially mentioned below). The bidder shall provide compliance and undertaking as per order and hereafter amendments:

- a) Order no: F.No.6/18/2019 PPD dated 23.07.2020 of Department of Expenditure), Ministry of Finance Under Public procurement division for the General Financial rule (GFRs).
- b) Class I local supplier means a supplier or service provider, whose goods, service or works offered for procurement, has local content equal to or more than 50%, as defined under order.
- c) Class II local supplier means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this Order.
- d) Bidders offering imported products will fall under the category of Non-local suppliers. They cannot claim themselves as Class I Local suppliers/Class II Local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. as local value addition.
- e) Verification of local content:
- i) The Class I local supplier/ Class II local supplier at the time to tender, bidding or solicitation shall be required to indicate percentage of local content and provide self certification that the item offered meets the local content requirement for Class I local supplier / Class II local supplier as the case may be. They shall also give details of the location(s) at which the local value addition is made.
- ii) In case bid value is in excess of Rs. 10 Cr., Class I local supplier/ Class II local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.
- iii) False declarations will be in breach of the code of Integrity under Rule 175(1) (i) (h) of the General Financial Rules (GFR) for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the general Financial Rules along with such other actions as may be permissible under Law.
- **3.** Warranty: 1 year from the date of acceptance
- **4.** MII conditions as per norms applicable
- **5.** All the items i.e. frame, motors, propellers, generator, payload etc provided should come as a package and work in unison. The vendor should provide required user manual/videos for the individual products and system as a whole along with tuning parameters for the UAV.

#### 6. EVALUATION CRITERIA OF THE BIDS

The selection/rejection of the technical bid shall be based on the followings: -

- I) Bidder must fulfill all the **ELIGIBILITY CRITERIA** of the Technical Bid
- II) Bidder must comply the **INSTRUCTIONS TO TENDERERS and TERMS & CONDITIONS OF TENDER**
- III) The quoted product of the Bidder must comply the **TECHNICAL SPECIFICATIONS** as per ANNEXURE-1
- IV) All Documentary evidences, BoM, OEM Datasheets (URL for details on quoted product), OEM Certificate including undertaking asked in the tender are mandatory, and failing which the technical Bid shall be rejected without further notification.

(NO DOCUMENTS RELATED TO TECHNICAL BID SHALL BE ALLOWED TO SUBMIT AFTER ONCE BIDDING IS CLOSED)

#### 4. SUBMISSION OF TENDER

The bid is required to be submitted in **Two Parts**. One part is the **Technical Bid** and the other part is the **Price Bid**.

The Bidder shall submit the bids in two separate envelopes. One envelope shall contain Technical bid and the other shall contain the Price bid. The bidder shall seal the Technical Bid and the Price Bid in two separate envelopes. Both the envelopes shall then be sealed in one outer (main) envelope along with **EMD** and **Tender Fee** and superscribed **Tender No. NESAC/1419/2022 for 'Supply of the items at NESAC (Hexcopter frame, Halo 2000W Generator, T-Motor U8 Lite KV 85 motors, etc).** The main envelope must be sent to The Purchase Officer, North Eastern Space Applications Centre (NESAC), Government of India, Department of Space, Umiam -793103, Meghalaya.

#### **INSTRUCTIONS TO TENDERERS**

- 1. EMD at the rate of ₹ 77000/- shall be submitted in form of Demand Draft from any of the Nationalized/Scheduled banks in favour of Director, NESAC payable at SBI Umiam (Branch Code 2010, Barapani), failing which the Tender will not be considered.
- 2. a) All taxes/duties/levies whether by Central/State/Local government where legally leviable and intended to be claimed should be distinctly shown separately (in percentage and words) in the tender, otherwise price quoted will be treated as inclusive of all taxes. While quoting the tender, the tenderer should take into account all the extant statutory deductions under Central/State/Local statutes where legally leviable and show it separately (in percentage and words) and if not separately shown it will be treated as inclusive of all statutory deductions applicable as per the extant statutes.
  - b) Our's being a Department of Space, Government of India, we are eligible for concession/exemption from payment of Customs Duty/GST.
- 3. As a Government of India Department, this office is exempted from payment of Octroi and similar local levies. Tenderers shall ensure that necessary Exemption Certificates are obtained by them from the Accounts Officer, I/C Purchase & Stores to avoid any payment of such levies.
  - a) Prices are required to be quoted according to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
- 5. Preference will be given to those tenders offering supplies from ready stocks and on the basis of F.O.R destination/delivery at site.
  - a) All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.
  - b) Samples, if called for, should be submitted free of all charges by the tenderer and the Purchaser shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non-acceptance of tender, the tenderer will have to remove the samples at his own expense.
  - c) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.
  - d) **Specifications**: Stores offered should strictly confirm to our specifications. Deviations, if any, should be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotations. Test Certificates, wherever necessary, should be forwarded along with supplies. Wherever options have been called for in our specifications, the tenderer should address all such options. Wherever specifically mentioned by us, the tenderer could suggest changes to specifications with appropriate response for the same.

- 6. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portions of the quantity offered and the tenderers shall supply the same at the rates quoted.
- 7. Corrections, if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.
- 8. The tenderer should supply along with his tender, the name of his bankers as well as the latest Income-Tax clearance certificate duly countersigned by the Income-Tax Officer of the Circle concerned under the seal of his office, if required by the Purchaser.
- 9. The authority of the person signing the tender, if called for, should be produced.

10. Late/Delayed tenders will not be considered.

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#### TERMS & CONDITIONS OF TENDER

#### 1. **DEFINITIONS**:

- a) The term 'Purchaser' shall mean Director, NESAC.
- b) The term 'Contractor' shall mean, the person, firm or company with whom or with which the order for the supply of stores is placed and shall be deemed to include the Contractor's successors, representative, heirs, executors and administrators unless excluded by the Contract.
- c) The term 'Stores' shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order including erection of plants & machinery and subsequent testing, should such a condition is included in the Purchase Order.
- d) The term 'Purchase Order' shall mean the communication signed on behalf of the Purchaser by an Officer duly authorized intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the tender or offer of the Contractor for supply of stores or plant, machinery or equipment or part thereof.

#### 2. PRICES:

Tender offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotation with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variation/s.

#### 3. SECURITY DEPOSIT:

On acceptance of the tender, the Contractor shall, at the option of the Purchaser and within the period specified by him, deposit with him, in cash or in any other form as the Purchaser may determine, security deposit not exceeding three percent of the value of the Contract as the Purchaser shall specify. If the Contractor is called upon by the Purchaser to deposit, 'Security' and the Contractor fails to provide the security within the period specified, such failure shall constitute a breach of the Contract, and the Purchaser shall be entitled to make other arrangements for the re-purchase of the stores Contracted at the risk of the Contractor in terms of Sub-Clause (ii) and (iii) of clause 10(b) hereof and/or to recover from the Contractor, damages arising from such cancellation.

#### 4. GUARANTEE/WARRANTY & REPLACEMENT:

- (a) The Contractor shall guarantee/warranty that the stores supplied shall comply fully with the specifications laid down, for material, workmanship and performance.
- (b) For a period of 12 months after the acceptance of the stores, if any defects are discovered therein or any defects therein found to have developed under proper use, arising from faulty stores design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 14 months from the date of acceptance thereof by the purchaser who shall state in writing in what respect the stores or any part thereof are faulty.
- (c) If, in the opinion of the purchaser, it becomes necessary to replace or renew any defective stores such replacement or renewal shall be made by the Contractor free of all costs to the purchaser, provided the notice informing the Contractor of the defect is given by the purchaser in this regard within the said period of 14 months from the date of acceptance thereof.

- (d) Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores.
- (e) The decision of the purchaser notwithstanding any prior approval or acceptance or inspection thereof on behalf of the purchaser, as to whether or not the stores supplied by the Contractor are defective or any defect has developed within the said period of 38 months or as to whether the nature of the defects requires renewal or replacement, shall be final, conclusive and binding on the Contractor.
- (f) To fulfill guarantee/warranty conditions outlined in clause 4 (a) to (e) above, the Contractor shall, at the option of the purchaser, furnish a Bank Guarantee (as prescribed by the purchaser) from a Bank approved by the purchaser for an amount equivalent to 10% of the value of the Contract along with first shipment documents. On the performance and completion of the Contract in all respects, the Bank Guarantee will be returned to the Contractor without any interest.
- (g) All the replacement stores shall also be guaranteed/warranted for a period of 12 months from the date of arrival of the stores at purchaser's site.
- (h) Even while the 12 months guarantee/warranty applies to all stores, in case where a greater period is called for by our specifications then such a specification shall apply in such cases the period of 14 months referred to in para 4 (b) & (c) shall be the 'asked for' guarantee/warranty period plus two months.

#### 5. PACKING FORWARDING & INSURANCE:

The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense of the Contractor. The purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Contractor and the Purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

#### 6. DISPATCH:

The Contractor is responsible for obtaining a clear receipt from the Transport Authorities specifying the goods despatched. The consignment should be despatched with clear Railway Receipt/Lorry Receipt. If sent in any other mode, it shall be at the risk of the Contractor. Purchaser will take no responsibility for short deliveries or wrong supply of goods when the same are booked on 'said to contain' basis. Purchaser shall pay for only such stores as are actually received by them in accordance with the Contract.

#### 7. TEST CERTIFICATE:

Wherever required, test certificates should be sent along with the despatch documents.

#### **8. ACCEPTANCE OF STORES:**

- (a) The stores shall be tendered by the Contractor for inspection at such places as may be specified by the purchaser at the Contractor's own risk, expense and cost.
- (b) It is expressly agreed that the acceptance of the stores Contracted for, is subject to final approval by the purchaser, whose decision shall be final.

- (c) If, in the opinion of the purchaser, all or any of the stores do not meet the performance or quality requirements specified in the Purchase Order, they may be either rejected or accepted at a price to be fixed by the purchaser and his decision as to rejection and the prices to be fixed shall be final and binding on the Contractor.
- (d) If the whole or any part of the stores supplied are rejected in accordance with Clause No. 8 (c) above, the purchaser shall be at liberty, with or without notice to the Contractor, to purchase in the open market at the expense of the Contractor stores meeting the necessary performance and quality Contracted for in place of those rejected, provided that either the purchase, or the agreement to purchase, from another supplier is made within six months from the date of rejection of the stores as aforesaid.

#### 9. REJECTED STORES:

Rejected stores will remain at destination at the Contractor's risk and responsibility. If instructions for their disposal are not received from the Contractor within a period of 14 days from the date of receipt of the advice of rejection, the purchaser or his representative has, at his discretion, the right to scrap or sell or consign the rejected stores to Contractor's address at the Contractor's entire risk and expense, freight being payable by the Contractor at actuals.

#### 10. DELIVERY:

- (a) The time for and the date of delivery of the stores stipulated in the Purchase Order shall be deemed to be the essence of the Contract and delivery must be completed on or before the specified dates.
- (b) Should the Contractor fail to deliver the stores or any consignment thereof within the period prescribed for such delivery, the purchaser shall be entitled at his option either.
  - (i) to recover from the Contractor as agreed liquidated damages and not by way of penalty, a sum of 0.5% per week of the price of any stores which the Contractor has failed to deliver as aforesaid or during which the delivery of such store may be in arrears subject to a minimum of 10%, or
  - (ii) to purchase from elsewhere, without notice to the Contractor on the account and at the risk of the Contractor, the stores not delivered or others of a similar description (where others exactly complying with the particulars, are not, in the opinion of the purchaser, readily procurable, such opinion being final) without cancelling the Contract in respect of the consignment (s) not yet due for delivery, or
  - (iii) to cancel the Contract or a portion thereof and if so desired to purchase or authorise the purchase of stores not so delivered or others of a similar description (where others exactly if complying with the particulars are not, in the opinion of the purchaser, readily procurable, such opinion final) at the risk and cost of the Contractor.

In the event of action being taken under sub-clause (ii) & (iii) of clause 10 (b) above, the Contractor shall be liable for any loss which the purchaser may sustain on that account, provided that the re-purchase or if there is an agreement to re-purchase then such agreement is made within six months from the date of such failure. But the Contractor shall not be entitled to any gain on such re-purchase made against default. The manner and method of such re-purchase shall be at the discretion of the purchaser, whose decision shall be final. It shall not be necessary for the purchaser to serve a notice of such re-purchase on the defaulting Contractor. This right shall be without prejudice to the right of the purchaser to recover damages for breach of Contract by the Contractor.

#### 11. EXTENSION OF TIME:

As soon as it is apparent that the Contract dates cannot be adhered to, an application shall be sent by the Contractor to the purchaser. If failure, on the part of the Contractor, to deliver the stores in proper time shall have arisen from any cause which the purchaser may admit as reasonable ground for an extension of the time (and his decision shall be final) he may allow such additional time as he considers it to be justified by circumstances, of the case without prejudice to the purchaser's right to recover liquidated damages under clause 10 thereof.

#### 12. ERECTION OF PLANT & MACHINERY:

Wherever erection of a plant or machinery is the responsibility of the Contractor as per the terms of the Contract and in case the Contractor fails to carry out the erection as and when called upon to do so within the period specified by the purchaser, the purchaser shall have the right to get the erection done through any source of his choice. In such an event, the Contractor shall be liable to bear any additional expenditure that the purchaser is liable to incur towards erection. The Contractor shall, however, not be entitled to any gain due to such an action by the purchaser.

#### 13. PAYMENT:

Contractor's bill will be passed for payment only after the stores have been received, inspected and accepted by the Purchaser.

#### 14. RECOVERY OF SUM DUE:

Whenever any claim for the payment of, whether liquidated or not, money arising out of or under this Contract against the Contractor, the purchaser shall be entitled to recover such sum by appropriating in part or whole, the security deposited by the Contractor, if a security is taken against the Contract. In the event of the security being insufficient or if no security has been taken from the Contractor, then the balance or the total sum recoverable as the case may be, shall be deducted from any sum then due or which at any time thereafter may become due to the Contractor under this or any other Contract with the purchaser. Should this sum be not sufficient to cover the full amount recoverable, the Contractor shall pay to the purchaser on demand the remaining balance due. Similarly, if the purchaser has or makes any claim, whether liquidated or not, against the Contractor under any other Contract with the purchaser, the payment of all moneys payable under the Contract to the Contractor including the security deposit shall be withheld till such claims of the purchaser are finally adjudicated upon and paid by the Contractor.

#### 15. INDEMNITY:

The Contractor shall warrant and be deemed to have warranted that all stores supplied against this Contract are free and clean of infringement of any Patent, Copyright or Trademark, and shall at all times indemnify the purchaser against all claims which may be made in respect of the stores for infringement of any right protected by Patent Registration of design or Trade mark and shall take all risk of accidents or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfillment of the contact.

#### 16. ARBITRATION:

Any disputes that arise during the execution of contract will be mutually discussed and settled between NESAC Contract-In-Charge/Focal Person and Service Provider. Any dispute that remains unresolved thereafter will be referred to a one-man Arbitrator, appointed by Director, NESAC, Umiam, Meghalaya in accordance with Arbitration & Conciliation Act 1996 as amended from time to time, whose decision shall be final and binding on both the parties.

#### 17. COUNTER TERMS AND CONDITION OF SUPPLIERS:

Where counter terms and conditions printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the Purchaser, unless specific written acceptance thereof is obtained.

#### 18. SECURITY FOR PURCHASE OF MATERIALS:

Successful tenderer will have to furnish in the form of a bank guarantee or any other form as called for by the purchaser towards adequate security for the materials and properties provided by the Purchaser for the due execution of the Contract.

# 19. BENEFITS EXTENDED BY MINISTRY OF MICRO, SMALL AND MEDIUM ENTERPRISE (MSME), GOVERNMENT OF INDIA

In order to avail of the benefits extended by Government of India to the Micro, Small and medium Enterprises, bidder should submit self attested copy of valid certificate of registration for specific services asked in the tender by any authority so authorized by Ministry of Micro, small and Medium Enterprise (MSME), Government of India to issue such certificate. Bidder will be required to produce original certificate when called for to do so by NESAC.

#### 20. BIDDER TURN OVER CRITERIA

The minimum average annual financial turnover of the bidder during the last three years, ending on 31<sup>st</sup> March of the previous financial year, should be as indicated above in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant/Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution/incorporation of the bidder is less than 3-year-old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criterion.

#### 21. EXPERIENCE CRITERIA

In respect of the filter applied for experience criteria, the Bidder or its OEM {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU / Public Listed Company for number of Financial years as indicated above in the bid document before the bid opening date. Copies of relevant contracts to be submitted along with bid in support of having supplied some quantity during each of the Financial year. In case of bunch bids, the category of primary product having highest value should meet this criterion.

#### 22. PURCHASE PREFERENCE TO MICRO AND SMALL ENTERPRISES (MSES):

Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service. If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for 25%(selected by Buyer) percentage of total QUANTITY

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# Price Bid

# (To be Included in Price Bid Envelope)

To	Date:
To:	
The Purchase Officer North Eastern Space Applications Government of India, Departmen Umiam – 793103, Meghalaya	
Ref.: NIT No.NESAC/1418/2022	
the undersigned, offer to supply and displaying documents as may be ascertatherewith and made part of this Bid. We commission the solution in accordance requirements. If our Bid is accepted, we to 10 percent of the contract price prescribed by the bank. We agree to all awarded by the NESAC up to the period us. Until a formal contract is preparacceptance thereof and your notifications.  We undertake that, in competing for (1)	nts, the receipt of which is hereby duly acknowledged, we, leliver the captioned solution, in conformity with the said sined in accordance with the schedule of Prices attached by a undertake, if our Bid is accepted, to deliver, install and see with the delivery schedule specified in the schedule of the will obtain the guarantee of a Bank in a sum equivalent for the due performance of the contract, in the form to ide by the Bid and the rates quoted therein for the orders of prescribed in the Bid, which shall remain binding upon red and executed, this Bid, together with your written on of award, shall constitute a binding contract between (and, if the award is made to us, in executing) the above
contract, we will strictly observe the la "Prevention of Corruption Act, 1988".	aws against fraud and corruption in force in India namely
We understand that you are not bound	to accept the lowest or any Bid you may receive.
Dated this Day of2022	
Signature (In the Capacity of)	Name:

Duly authorized to sign the Bid for and on behalf of

## भारत सरकार/Government of India अंतरिक्ष विभाग/Department of Space उत्तर-पूर्वी अंतरिक्ष उपयोग केंद्र/North Eastern Space Applications Centre उमियम/Umiam-793103, मेघालय/Meghalaya

निवि GEM Report ID: GEM/GA	ARPTS/25042022/BCIJ72HUQFVS
संदर्भ सं./Ref No.	·
दिनांक /Date	

#### **PRICE BID**

प्रपत्र/From
सेवा मे/To,
क्रय आधिकारी /Purchase Officer
एनई-सैक/NESAC, उमियाम/Umiam

श्रीमान/Dear Sir,

I/We hereby offer to supply the stores detailed herewith/below at the price hereunder quoted and agree to hold this offer open till .......I/We shall be bound to supply the stores hereby offered on the issue of the Purchase Order communicating the acceptance thereof on or before the expiry of the last mentioned date. You have the liberty to accept any one or more of the items of stores tendered for any portion of any one or more of items of such stores. I/We not withstanding that the offer in this tender has not been accepted in whole, shall be bound to supply to you such items and such portion or portions of one or more of the items as may be specified in the said Purchase Order communicating the acceptance.

क्रं.सं.		मात्रा	Unit price		Tax/GST	Total
Sl. No.	TadyW/Description	%	Amount (₹)	Amount (₹)		
1	Hexcopter frame with detailed specifications as mentioned in Annexure 1	01				
2	Halo 2000W Generator with detailed specifications as mentioned in Annexure 1	01				
3	T-Motor U8 Lite KV 85 motors with detailed specifications as mentioned in Annexure 1	07				
4	T-Motor Flame 60 A ESC with detailed specifications as mentioned in Annexure 1	07				
5	Diamond-2995 Propellers with detailed specifications as mentioned in Annexure 1	06 sets				
6	Fuel tank with 7L capacity with detailed specifications as mentioned in Annexure 1	01				
7	DJI A3 Pro flight controller with detailed specifications as mentioned in Annexure 1	01				
8	CUAV P9 900MHZ Radio Telemetry Wireless Transmission Module with detailed specifications as mentioned in Annexure 1	01				

क्रं.सं.	<del></del> (D	मात्रा	Unit price	Г	Cax/GST	Total
Sl. No.	विवरण / Description	Qty.	(₹)	%	Amount (₹)	Amount (₹)
9	DA16S+ Radio Controller with detailed specifications as mentioned in Annexure 1	01				
10	Expansion Module for DJI Flight Controller with detailed specifications as mentioned in Annexure 1	01				
11	GPS Folding Antenna Mount Holder for given GPS & frame with detailed specifications as mentioned in Annexure 1	01				
12	6S 5000mAh Battery with detailed specifications as mentioned in Annexure 1	02				
13	Liquid Level Sensor with detailed specifications as mentioned in Annexure 1	01				
14	Bi-Focus 10 X optical Zoom camera 320 X 240 IR thermal camera with 3-axix Gimbal with detailed specifications as mentioned in Annexure 1	01				
15	H-RTK F9P GNSS series GPS with helical antenna with detailed specifications as mentioned in Annexure 1	02				
16	CUAV X7 Pro flight controller with Neo 3 Pro GNSS with detailed specifications as mentioned in Annexure 1	01				
17	TF Single Point Series LiDAR-180m with detailed specifications as mentioned in Annexure 1	01				
18	TF Single Point Series LiDAR-40m with detailed specifications as mentioned in Annexure 1	03				
19	Mauch 053: Power Cube 3/V3 (PC3/V30)-PDB with detailed specifications as mentioned in Annexure 1	01				
20	Mauch 076: HS-200-HV, 200A Sensor with detailed specifications as mentioned in Annexure 1	02				
21	Herelink –HD Video transmission system with detailed specifications as mentioned in Annexure 1	01				
22	VDC-15 long range video/data/RC transmission system with 15 km range and 2.4 Ghz feq with detailed specifications as mentioned in Annexure 1	01				
23	Mauch 085: 4-14S BEC (HS) with detailed specifications as mentioned in Annexure 1	10				
24	Matek FCHUB-12S PDB with 440A Current Sensor & Dual BEC for X Class Quad with detailed specifications as mentioned in Annexure 1	04				
25	LG INR21700 M50 5000mAh (1c) LI-ION BATTERY with detailed specifications as mentioned in Annexure 1	10				

कुल/Total	
छूट/Discount	
কুল/Total after Discount	
Taxes & other duties (Specify the percentage %)	
GRANT TOTAL	
(In words) Rupees	

#### Note:

1. All the rates should be given both in figures and words

वितरण का स्थान/Place of delivery and Installation:	F.O.R. NESAC, UMIAM
Date by which the ordered item/s will be supplied	

I/We have understood the terms and conditions of the contract and the instructions of tenderers annexed to the invitation to tender and have thoroughly examined the specification/drawing and/or pattern quoted or preferred to herein and/or fully aware of the nature of stores required and my/or offer is to supply the stores strictly in accordance with the requirements subject to the terms and conditions contained in the purchase orders communicating the acceptance of this tender either in whole or in part.

Date:

निविदाकार के मुहर व हस्ताक्षर Seal and Signature of the Tenderer