

REPUBLIC OF KENYA



MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

State Department for Housing and Urban Development

Supply and Delivery of Two (2 No.) Mapping UAV/Drone

RFB No: KE-MOTI-355241-GO-RFB

ADDENDUM 1

CLARIFICATIONS

This is in reference to tender advertisement appearing in the Daily Nation Newspapers (MyGov Pull-out) of 9th May, 2023, and the State Department's Website.

Clarifications to queries raised by prospective bidders are herewith issued as shown in the table below:

S/No	Clarification	Response to Clarification
1.	The specification is for M600 which has reached end of production and no longer in market. Can one quote an alternative? There is no mention of payload/sensor for mapping? What will the drones be used for? Do you need the drone to be supplied with sensors/payload/camera?	This is well noted and the correct specifications shown below
2.	Mandatory Documents- Part of the Mandatory Documents is that "The firm bidding must be registered with the Land Surveyors Board". As the scope of this tender is the supply of drones and provision of training on drone use, we propose that it is not necessary for a bidder for this scope be registered with the Land Surveyors Board. We request that you strike out this mandatory requirement from this bid.	This is well noted and corrected, the Lead Consultant who is a Land Surveyor should be the one registered and not the firm.
3.	Bid Security- Requirement is for 2% of bid sum. We request for a specific figure for bid security. This is to enable us obtain the bid security from bank in good time, considering that pricing for the bid will usually be done at the final moments of tender preparations.	This is calculated as 2% of the price of your BID sum.
4.	Annual Volume- Our company is less than four years old, and therefore, cannot submit the audit financial statements for the past four years. However, we are a fully owned subsidiary of a company that meets this financial requirement. Please clarify whether we can include	Documents allowable are only for the participating bidder. Therefore, this is not allowed.

	the documents of our parent company in our bid without forming a JV.	
5.	<p>Technical Specification: -</p> <ul style="list-style-type: none"> Retractable landing gear- We request that you remove this requirement as it is limiting to the drones applicable. CHARGER(MODEL:MC6S600)- We request that you remove this requirement as it is limiting to the drones applicable. 	The revised technical specifications are hereby attached.
6.	Annual Volume- The requirement for audited financial statements for a joint venture is that it be met by each member. We request that you change this requirement to indicate that for a joint venture, this requirement shall be met by any member or all members combined;	Documents allowable are only for the participating bidder. Therefore, this is not allowed.
7.	Tender Submission Date- In view of the above, we request that you extend the tender submission date by four (4) weeks to 5th July 2023, to enable bidders enough time to prepare the bid.	The submission date has been extended by 7days to Wednesday 14th May 2023, 1100HRS East Africa Time

DRONE/UAV TECHNICAL SPECIFICATIONS

RTK Drone	RTK Drone (Universal Edition) with RTK High Precision GNSS Mobile Station, RTK BASE STATION TRIPOD, Intelligent Battery Station 2 Pairs, Intelligent Flight Battery (3 pairs), Upward Gimbal Connector, L1 Sensor, Smart Controller Enterprise Monitor Mounting Kit
Dimensions:	810×670×430 mm [Unfolded, propellers excluded] 430×420×430 mm [Folded, propellers included]
Diagonal Wheelbase:	895 mm
Max Payload:	2.7 kg:
Max Take-off Weight	9 kg
Weight:	without batteries ± 3.6 kg with 2x TB60 batteries ± 6.3 kg
Transmission Power	(EIRP): 5.725 – 5.850 GHz 2.4000 – 2.4835 GHz
Hovering Accuracy: (P-mode with GPS)	<p>Vertical:</p> <p>±0.1 m (Vision System enabled) ±0.5 m (GPS enabled) ±0.1 m (RTK enabled)</p> <p>Horizontal:</p> <p>±0.3 m (Vision System enabled) ±1.5 m (GPS enabled) ±0.1 m (RTK enabled)</p>
RTK Positioning Accuracy:	(When RTK enabled and fixed) 1cm + 1ppm Horizontal

	1.5cm + 1ppm Vertical
Max Ascent Speed:	S mode: 6 m/s P mode: 5 m/s
Max Decent Speed:	Vertical S mode: 5 m/s P mode: 3 m/s Tilt S mode: 7 m/s
Max Speed:	S mode: 23 m/s P mode: 17 m/s
Max Wind Resistance:	15 m/s
Max Flight Time:	55 min
Max Service Ceiling: Above Sea Level	5 000 m [with 2110 propellers, take-off weight ≤ 7 kg] 7 000 m [with 2195 propellers, take-off weight ≤ 7 kg]
Supported Gimbals:	H20T
Supported Gimbal Configurations:	Single Downward Gimbal, Dual Downward Gimbals Single Upward Gimbal, Upward & Downward Gimbals, Triple Gimbals
Environmental Rating:	IP43
GNSS:	GPS+GLONASS+BeiDou+Galileo
Operating Temperature:	-20° to 50°C
REMOTE CONTROLLER	
Transmission Power (EIRP):	2.4000 – 2.4835 GHz 5.725 – 5.850 GHz
Max Transmission Distance:	NCC/FCC: 15 km CE / MIC: 8 km SRRC: 8 km
Battery Life:	Built-in battery: ± 2.5h Built-in battery + Ext battery: ±4.5h
External battery:	Name: WB37 Intelligent Battery Capacity: 4920 mAh Voltage: 7.6V Type: LiPo Energy: 37.39Wh
Charging time:	With 12V/2A USB Charger – 70 MIN (15°C to 45°C) With BS60 Battery Station – 130 MIN (0°C to 15°C)
Battery Life:	Built-in battery: ± 2.5h Built-in battery + Ext battery: ±4.5h
Built-in battery:	Type: 18650 lithium-ion (5000 mAh @ 7.2 V)
Charging:	12V/2A USB Charger
Rated power:	17 W
Charging time:	2 HRS 15 MIN
USB Power Supply:	5V / 1.5A

Operating Temperature:	-20° to 40°C
VISION SYSTEM	
Obstacle Sensing Range:	Forward/Backward/Left/Right: 0.7-40m Upward/Downward: 0.6-30m
FOV:	Forward/Backward/Downward: 65° (H) / 50° (V) Left/Right/Upward: 75° (H) / 60° (V)
Operating Environment:	Surfaces with clear patterns and adequate lighting (> 15 lux)
INFRARED TOF SENSING SYSTEM	
Obstacle Sensing Range:	0.1 – 8m
Field of View:	30° (± 15°)
Operating Environment:	Large, diffuse and reflective obstacles (reflectivity >10%)
TOP AND BOTTOM AUXILIARY LIGHT	
Effective lighting distance:	5m
FPV CAMERA	
Resolution:	960p
Field of View:	145°
Frame Rate:	30 fps
INTELLIGENT FLIGHT BATTERY (TB60)	
Capacity:	5935 mAh
Battery Type:	TB60 Intelligent Flight Battery × 8 WB37 Intelligent Battery × 4
Input:	220-240 VAC, 50-60 Hz
Net Weight:	8.37kg
Operating Temperature:	-20°C to 40°C Max.
Input Power:	1070W Output Power: 220-240 V: 992 W
PROCESSING SOFTWARE	
Perpetual license:	Pix4Dmapper Desktop

The submission date has also been extended by seven (7no.) days to **Wednesday 14th May 2023, 1100HRS East Africa Time**. All the other conditions remain the same.

Head Supply Chain Management Services

For: The Principal Secretary

State Department for Housing and Urban Development.

P.O. Box 30119 -00100

NAIROBI, KENYA