

ज्ञापांक 3843 / आपूर्ति

95-1-16-2015

पुलिस महानिदेशक का कार्यालय, बिहार, पटना।

पटना, दिनांक- 20-7-16

सेवा में,

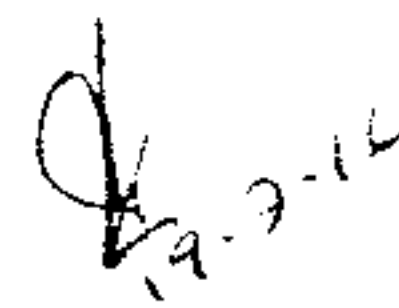
निदेशक,
सूचना एवं जनसम्पर्क विभाग,
बिहार, पटना।

विषय- निविदा आमंत्रण सूचना सं०-22/2016-17 (पी०आर० नं०-4008, दिनांक-13.07.16) को संशोधित करने की सूचना प्रकाशन करने के संबंध में।

निदेशानुसार उपर्युक्त विषय के संबंध में निविदा आमंत्रण सूचना सं०-22/2016-17 (पी०आर० नं०-4008, दिनांक-13.07.16) को संशोधित करने से संबंधित सूचना की पाँच प्रतियाँ (सी०डी० सहित) संलग्न करते हुए अनुरोध है कि इसे राज्य एवं राज्य से बाहर के प्रमुख समाचार पत्रों में (अंग्रेजी एवं हिन्दी) के अगले दो संस्करणों में प्रकाशित कराने की कृपा की जाय साथ ही पी०आर०डी० वेबसाइट पर भी प्रसारित करने की कृपा की जाय।

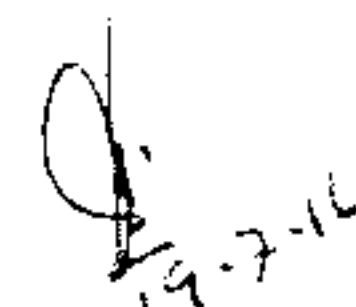
इस निविदा आमंत्रण सूचना का प्रकाशन किन्-किन समाचार पत्रों में किया गया इसकी सूचना देने की कृपा की जाय।

अनु०-यथोपरि।


पुलिस महानिरीक्षक के सहायक (क्यू०),
बिहार, पटना।

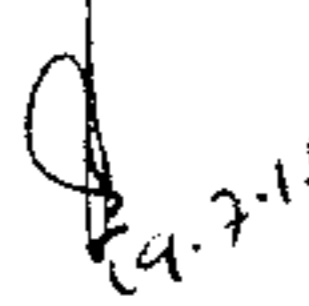
प्रतिलिपि:-

1. आई०टी० मैनेजर, पुलिस महानिदेशक का कार्यालय, बिहार, पटना को कृपया सूचनार्थ। कृपया इसे आज ही वेबसाइट पर अपलोड किया जाय। साथ ही Indian Trade Journal, Kolkata के अंक में प्रकाशन हेतु Government of India, the Controller of Publications, Civil Lines, Delhi : 110 054, (Tel No. 011-23812527, FAX : 011-23817846), Email Id-sk.mondal.dgcis@nic.in के पतेपर भी अनिवार्य रूप से भेजा जाय।


पुलिस महानिरीक्षक के सहायक (क्यू०),
बिहार, पटना।

शुद्धि-पत्र

बिहार पुलिस मुख्यालय, पटना के निविदा आमंत्रण सूचना सं०-22/2016-17 (Advertisement ID-4008, Dated-13-07-2016) UAV NETRA (DRONE) के क्रय हेतु प्रकाशित Specification को रद्द किया जाता है तथा उसके स्थान पर उपयोगी Specification प्रकाशित किया जाता है। शेष यथावत रहेगा। प्रकाशित निविदा को इस हद तक संशोधित समझा जाय।


24.7.16
पुलिस महानिरीक्षक के सहायक (क्यू),
बिहार, पटना।

Only firms holding Industrial License for manufacturing UAVs can apply

1.	Physical Characteristics	Specification/Remarks
a.	UAV Weight with battery and payload	< 3 Kg
b.	UAV Size with propellers	< 100cm x 100cm
2. UAV Performance Characteristics		
a.	Endurance	Minimum 50 minutes with either payload @ MSL <i>For every 1000m increase in takeoff altitude, endurance reduction of 10%. Endurance to be tested at ISA +20°C temperature</i>
b.	Range	Minimum 4.5 km LOS (Line-of-sight)
c.	Maximum launch altitude	2000m AMSL (Above Mean Sea Level) or more
d.	Maximum operating altitude	450m AGL (Above Ground Level) or more
e.	Functional Temperature Range	-10°C to +50°C (Test results from any recognized/accredited Lab to be submitted)
f.	Dust & Drizzle Resistance	IP53 rating or better (Test results from any recognized/accredited Lab to be submitted)
g.	Wind Resistance	16 knots or more
h.	Aural Signature	Nil aural signature at slant range of 300m (Test results from any recognized/accredited Lab to be submitted)
i.	Technical Life of UAV	Minimum 500 landings (Test results from any recognized/accredited Lab to be submitted)
3. Operational Characteristics		
a.	Launch & Recovery	Autonomous Vertical Take-Off & Landing (VTOL)
b.	Maximum space required for recovery	25m x 25m open area
c.	Flight Modes	<ul style="list-style-type: none"> ▪ Fully autonomous from Take-off to Landing without using any R/C controller ▪ Altitude Hold ▪ Hover at a defined waypoint ▪ Autonomous Waypoint Navigation (pre-defined as well as dynamically adjustable waypoints during flight) ▪ Remotely Piloted mode for video based navigation (RPV Mode)

d.	Deployment Time (from fully packed state to UAV Take-off)	< 10 minutes
e.	Packing Time (after UAV landing to fully packed state)	< 10 minutes
f.	Failsafe features	<ul style="list-style-type: none"> ▪ Return to Home on communication failure ▪ Return to Home/Land on low battery ▪ Multiple GPS on-board for GPS failure redundancy ▪ Return to Home in higher wind conditions
g.	Packaging and Storage	<ul style="list-style-type: none"> ▪ Waterproof Backpack that houses all the sub-systems which allows the complete system to be carried and operated on field by the crew ▪ Hard cases for transportation & storage
h.	Operating Crew	Maximum 2
4. Payload Characteristics		
4. Payload Characteristics		Specification/Remarks
a.	Payloads	<ul style="list-style-type: none"> ▪ Colour Electro Optic (EO) for day ▪ Thermal Imager (TI) for night
b.	Payload Replacement Time	< 2 minutes
c.	Payload Freedom (in flight)	<ul style="list-style-type: none"> ▪ Pan: 360° continuous ▪ Tilt: 90°
d.	Daylight Payload	<ul style="list-style-type: none"> ▪ Resolution: Minimum 720x480 ▪ Zoom: 10x Optical
e.	Night Payload	<ul style="list-style-type: none"> ▪ Resolution: Minimum 320x240 ▪ Zoom: 4x Digital ▪ Modes: White Hot & Black Hot
f.	Target Detection Slant Range (Human Size Target)	<ul style="list-style-type: none"> ▪ Daylight: Minimum 600m ▪ Thermal: Minimum 300m
g.	Stabilization	<ul style="list-style-type: none"> ▪ Gimbal stabilisation of both payloads ▪ Electronic stabilisation of video output at all zoom levels in real-time
h.	Target Tracking	<ul style="list-style-type: none"> ▪ Vision based Autonomous Target Tracking ▪ Real-time tracking of Static and Moving targets
i.	Night Recovery Beacon	Switchable (from GCS) LED light when operating with Night Payload
5. Communication Link Characteristics		
5. Communication Link Characteristics		Specification/Remarks
a.	Communication link capability	<ul style="list-style-type: none"> ▪ Transmit control commands from GCS to UAV ▪ Transmit telemetry data from UAV to GCS ▪ Transmit day and night video from UAV to GCS
b.	Video Link	Digital and Encrypted
c.	Frequency Band	2.4GHz or 5GHz band up-link and down-link
d.	Number of Channels / Number of UAVs that can be operated in same vicinity	<ul style="list-style-type: none"> ▪ Minimum 4 Channels (User Selectable) ▪ Minimum 2 UAVs to be operated in the same vicinity
6. Ground Control Station (GCS) Characteristics		
6. Ground Control Station (GCS) Characteristics		Specification/Remarks
a.	Computing Hardware	<ul style="list-style-type: none"> ▪ Ruggedized Laptop/Tablet with following minimum specifications: <ul style="list-style-type: none"> ○ MIL-STD810G (or equivalent) for -10°C

		<ul style="list-style-type: none"> operation <ul style="list-style-type: none"> ○ MIL-STD810G (or equivalent) for +50°C operation ○ MIL-STD810G (or equivalent) 3 feet drop tests ○ IP67 or better for dust and drizzle resistance ▪ Test results from any recognized/accredited Lab to be submitted ▪ Sunlight Viewable Display ▪ Single Screen with Touch Screen Control for complete GCS operation including Map Display and Real-Time Video Display ▪ Battery operation: Minimum 2 full endurance flights in one battery charge
b.	GUI Display parameters	<ul style="list-style-type: none"> ▪ Geographic Map along with UAV location, UAV trajectory, camera view polygon, waypoints and flight plan ▪ 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, Distance from HOME etc. ▪ Real-time video should be displayed at all times during the flight ▪ Artificial Horizon indicating UAV attitude
c.	Maps	<ul style="list-style-type: none"> ▪ Capability to work with Google Maps and/or other available open-source maps. Application should have the capability to download maps automatically after specifying location GPS co-ordinates ▪ Capability to integrate geo-referenced raster maps provided in at least one of the commonly used digital map formats (gif, tiff etc.)
d.	User Controls	<ul style="list-style-type: none"> ▪ One-click Take-off/Land/Hover ▪ Set altitude of the UAV ▪ Waypoint navigation ▪ Dynamic flight plan adjustment ▪ Point payload to ground co-ordinate function ▪ RPV Mode which allows UAV to be flown in semi-autonomous mode by looking at the on-board video ▪ Switch on/off Night Recovery Beacon
e.	Joystick Controls	<ul style="list-style-type: none"> ▪ Full camera controls <ul style="list-style-type: none"> ▪ Pan/Tilt ▪ Zoom In/Out ▪ Black/White Hot ▪ RPV mode ▪ Altitude control
f.	Video	<ul style="list-style-type: none"> ▪ Video should be recorded in commonly portable video format (AVI/MP4 etc.) on the

		<p>GCS. The UAV should not do any on-board recording.</p> <ul style="list-style-type: none"> ▪ Video of the full flight should be recorded by default with option to turn recording off ▪ Capability to take image snapshots with on-screen display parameters at any time during flight
g.	Pre-flight checks	Capability to perform pre-flight checks of the complete system before every flight for confirming the suitability of flightworthiness
h.	Others	<ul style="list-style-type: none"> ▪ Essential telemetry data logging ▪ Export of flight path in .kml format for reviewing in Google Earth ▪ Port for data/video transfer to external storage devices
7. General Requirements		
7.	General Requirements	Specification/Remarks
a.	System Configuration	<ul style="list-style-type: none"> ▪ One UAV with 4 Batteries ▪ One Daylight Payload ▪ One Thermal Payload ▪ One GCS with Communication System and its accessories ▪ One Field repair kit ▪ One Set of spare propellers and landing gears each ▪ Waterproof Backpack ▪ Hard Carrying Case ▪ Battery Charger(s)
b.	Weight	Weight of complete system as defined in 7a. excluding Hard Carrying Case and Battery Charger(s) must not exceed 18Kg