

**REQUEST FOR INFORMATION (RFI)****Title of the RFI:**

Unmanned Aircraft System for Intelligence Surveillance and Reconnaissance (ISR) in support of MINUSCA, Central African Republic

**Date of this RFI:** 2 March 2021

**Closing Date for Receipt of RFI at PD:** 31 March 2021

**RFI Number:** RFIRR3375

**Address RFI response by fax or e-mail to the Attention of:** Remy Raul

**Fax Number:**

**E-mail Address:** raul@un.org

**UNSPSC Code:** 46151600,78111500,25131705

**DESCRIPTION OF REQUIREMENTS**

The UN is considering the option to conduct a procurement exercise for the provision of Intelligence, Surveillance and Reconnaissance (ISR) services with CLASS I small Unmanned Aircraft systems (UAS) (a minimum of nine (9) tasking lines) in support of peace-keeping operations in Central African Republic. The UAS and service components must be highly tactical in nature, mobile, capable of operating in hostile environments, with the ability to deploy to different locations within CAR and remain operational for a few days with minimum support. MINUSCA is not able to provide with suitable airtrips or clear landing areas, therefore the UAS must be capable to take off and land from very small and confined areas. Vertical Take off and Landing (VTOL) is envisaged, however other potential solutions are welcome.

**Reconnaissance:** refers to an effort or a mission to acquire information about a target that can be a one-time endeavor for routine analysis of defined points of interest, with emphasis on locating and identifying illegal activity such as check points, endangerment of the civilian population and suspected armed group activity.

**Surveillance:** a systematic observation of a targeted area or group, usually over an extended time, for pattern of life analysis and change detection of defined points of interest. This could be over a specific location for the full duration of the mission or the tasking could involve following a vehicle over large distances, up to 100km.

The UN is seeking a turn key solution, including the provision of UAS, in accordance with (iaw) the standards contained in the Convention on International Civil Aviation (the Convention) and associated service components, maintenance, personnel and exploitation of the imagery and data. The contractor may also be required to provide the necessary infrastructure for its equipment and personnel. The imagery data must be made available to the UN in an unencrypted, non-proprietary format.

It is expected that contracts will be for a period of 3 years, extendable at the option of the UN to 4 and 5

years, and will generally apply to a single mission area.

#### **SPECIFIC REQUIREMENTS / INFORMATION (IF ANY)**

The UN envisions the following requirements for the CLASS I small UAS ISR solution:

- a. 24/7 service availability. The UN is considering a minimum of nine (9) 24/7 available tasking lines. Each TL must be available six days out of seven, however MINUSCA will plan in order to have UAS capability on 24/7 basis as required by the operational tempo. The contractor must provide on a continuous basis enough crew and personnel to ensure at least, one sortie of 6 hours (excluding transit time) per day per UAS, with a minimum range of 100 km from the launch location and capable of transmitting near-real-time video to a Remote Viewing Terminal (RVT) at least 20 km slant range. The UAS must be able to operate in rainforest type weather with moderate rain and winds up to 25 km/h including gust. These estimated flight hours do not include currency or training requirements, just operational Mission flight time. It is envisioned the need for day and night personnel shifts to guarantee the availability of crews, aircraft, analysis and service associated components on a 24/7 basis.
- b. The UAS must be able to operate in uncontrolled and unsegregated airspace. In addition, the UAS must be equipped with transponder 3/A and C, ideally mode S for TCAS II.
- c. Each tasking line must be able to provide a minimum of six (6 hours on-station time at a distance of 100 km from the MOB.
- d. The UAS must be highly mobile with a small footprint to allow for quick relocation.
- e. The UAS should be operational and launched (airborne) within 60 minutes upon arrival to the decided location and able to support 96-hours of operations if required.
- f. The system must be able to take off and land within a 100 ft. x 100 ft. area bounded by 100 ft. high obstacles. Additional landing area preparation is not possible.
- g. The UN intends to provide basic support at its main bases, however the UAS and associated personnel shall be capable of self-sustained activity at non-main base locations when and where required for operational reasons. Self-sufficient high mobility and regular operations within CAR AOR is a basic requirement.
- h. The capability should be compatible to a standard video downlink according to Standardization Agreement (STANAG) 4609 and 4586. It must support VHF and/or UHF reliable and stable two-way radio communication with troops and/or command centers on the ground for dynamic tasking and coordination.
- i. Data link should be able to penetrate very noisy 2.4 GHz spectrum over city's or be able to switch to a non-standard frequency without too much degradation of real time feed.
- j. The UAS personnel including pilots, payload operators and data analysis shall have the adequate specific qualification and/or training to perform their respective functions during ISR operations in

accordance with FAA regulations.

k. The UAS components, including aircraft and related equipment must be adapted to operate in rainforest weather environment with high humidity and temperatures.

l. The UAS must be modular with robust field maintenance capability and enough spare components to minimize downtime.

m. CLASS I Small UAS Operators who wish to provide services to the United Nations shall have established, implemented and maintain a management system that:

i. Corresponds to the size of the company, to the nature and complexity of its activities, taking into account the hazards and associated risks inherent in these activities.

ii. Depicts the UAS operator's management structure and organizational chart.

iii. Defines clearly the company reporting lines, responsibilities and accountabilities, operational safety policy and objectives, safety promotion, management of risk, and compliance monitoring activities (regulatory & contractual as applicable).

n. Sensor capabilities:

1) EO/IR HD cameras. Minimum Ground Separation Distance (GSD) of 40cm, ideally 20cm . Both EO and IR cameras must be capable of High Definition (HD) output resolution of 720P 24Hz or higher. Circular error probability of geo-location no greater than 40m. Laser pointer/range finder is highly desirable.

Analytical deliverables of HD imagery and video include, but are not limited to:

i. Distinguish combatants from non-combatants through the ability to identify small arms (i.e. a person holding an AK47 type rifle).

ii. Detect and count human-sized targets by day and by night, in open space or under light vegetation.

iii. Distinguish undisguised men, women and children by day and by night.

iv. Detect heat signature from an automobile and movement of an automobile.

v. Identify the movement of small sub-groups of people moving away from a larger group or gathering of people.

vi. EO/IR camera output should have time stamps, geocoordinates and altitude information as geotagged and as subtitles for video output.

vii. Updated flight location map together with hot switching between EO/IR views.

viii. Geo tracking of objects through EO Sensor.

ix. Auto tracking capabilities on EO Sensor at least

x. Multiple color palettes on IR View.

xi. Radiometric IR for better heat detection and heat source temperature measurements as well as smaller adjustable temperature detection scale

2) Imagery distribution.

(a) The aircraft ISR system shall have outputs to enable simultaneous multiple viewing in multiple locations, such as via landlines or communications links provided by the Mission. The system shall have outputs for near real time full motion video in common standard video file format (e.g. mpeg).

(b) High definition-quality images are to be distributed and displayable on standard UN provided computer networks and monitors and recorded (ideally on a NAS, provided by the UN) for subsequent retrieval and display, as required. In time, all captured FMV data must be made available in an unencrypted format for UN long term storage. FMV has to be stored in a common standard video file format (e.g. mpeg) including all relevant metadata.

(c) Remote Viewing Terminals (RVT). The ISR system has the capability of simultaneously transmitting near real time imagery to RVT (provided by the contractor) field-deployed with the Mission ground forces. RVTs may be operated in vehicles or on foot. The Operator will provide training for use of RVTs to UN personnel. RVTs must be man portable with integral power supply and provide up to 12 hours continuous operation. Such equipment load must be portable by two soldiers in full combat gear. Imagery reception of the RVT should be achievable at a slant range of 10km from the aircraft.

3) Dual Payload. The A UAS must be capable of including dual payload and additional sensors if required will be of interest for the UN.

Vendor Registration :

Vendors will need to be registered at Level 2 in UNGM. Additional technical and operational requirements might apply for registration of air operators (AOC holders) with the UN. Detailed information is available online at the address below:

<https://www.un.org/Depts/ptd/aviation>

The UN reserves the right to include other prequalification criteria for the upcoming procurement exercise

as appropriate

#### NOTE

Information on tendering for the UN Procurement System is **available free of charge** at the following address: <https://www.ungm.org/Public/Notice>

Only the United Nations Global Marketplace (UNGM) has been authorised to collect a nominal fee from vendors that wish to receive automatically Procurement Notices or Requests for Expression Of Interest. Vendors interested in this Tender Alert Service are invited to subscribe on <http://www.ungm.org>

# VENDOR RESPONSE FORM

**TO:** Remy Raul  
**Email:** raul@un.org  
**FAX:**

**RFI Number:**

**FROM:**

**SUBJECT:** Unmanned Aircraft System for Intelligence Surveillance and Reconnaissance (ISR) in support of MINUSCA, Central African Republic

*To be filled by the Vendor (All fields marked with an '\*' are mandatory)*

## COMPANY INFORMATION

**UNGM Vendor ID Number\*:**

**Legal Company Name** (Not trade name or DBA name) \*:

**Company Contact \*:**

**Address \*:**

**City \*:**

**State:**

**Country \*:**

**Telephone Number \*:**

**Fax Number \*:**

**Email Address:**

**Company Website:**

We declare that our company fully meets the prerequisites A, B, C, D and E, for eligibility to register with the United Nations as outlined in the paragraph 1 of the RFI INSTRUCTIONS page.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name and Title: \_\_\_\_\_

**\*\* If not already registered with UN Procurement Division, please use the following URL to register at United Nations Global Marketplace (UNGM): [www.ungm.org](http://www.ungm.org).**

## 1) Registering as a Vendor with the United Nations

Vendors interested in fulfilling the requirement described above must be registered at the UN Global Marketplace ([www.ungm.org](http://www.ungm.org)) with the UN Secretariat in order to be eligible to participate in any solicitation. Information on the registration process can be found at <https://www.un.org/Depts/ptd/vendors>.

### Prerequisites for Eligibility

In order to be eligible for UN registration, you must declare that:

- A. Your company (as well as any parent, subsidiary or affiliate companies) is not listed in, or associated with a company or individual listed in:
  - I. the Compendium of United Nations Security Council Sanctions Lists (<https://www.un.org/sc/suborg/en/sanctions/un-sc-consolidated-list>), or
  - II. the IIC Oil for Food List website or, if listed on either, this has been disclosed to the United Nations Procurement Division in writing.
- B. Your company (as well as any parent, subsidiary or affiliate companies) is not currently removed or suspended by the United Nations or any other UN organisation (including the World Bank);
- C. Your company (as well as any parent, subsidiary or affiliate companies) is not under formal investigation, nor have been sanctioned within the preceding three (3) years, by any national authority of a United Nations Member State for engaging or having engaged in proscribed practices, including but not limited to: corruption, fraud, coercion, collusion, obstruction, or any other unethical practice;
- D. Your company has not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against your company that could impair your company's operations in the foreseeable future;
- E. Your company does not employ, or anticipate employing, any person(s) who is, or has been a UN staff member within the last year, if said UN staff member has or had prior professional dealings with the Vendor in his/her capacity as UN staff member within the last three years of service with the UN (in accordance with UN post-employment restrictions published in ST/SGB/2006/15).
- F. Your company undertakes not to engage in proscribed practices (including but not limited to: corruption, fraud, coercion, collusion, obstruction, or any other unethical practice), with the UN or any other party, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the UN.

**For Registered Vendors:** Vendors already registered at the UN Global Marketplace with the UN Secretariat must ensure that the information and documentation (e.g. financial statements, address, contact name, etc.) provided in connection with their registration are up to date in UNGM. Please verify and ensure that your company is registered under its full legal name.

**For Vendors Interested in Registration:** Vendors not yet registered should apply for registration on the United Nations Global Marketplace (<http://www.ungm.org>); information on the registration process can be found at <https://www.un.org/Depts/ptd/vendors>.

**IMPORTANT NOTICE:** Any false, incomplete or defective vendor registration may result in the rejection of the application or cancellation of an already existing registration.

## 2) RFI Process

Vendors interested in responding should forward their information (as requested in the RFI) to the United Nations Procurement Division (UNPD) by the closing date set forth in this RFI. *Due to the high volume of communications, UNPD is not in a position to issue confirmation of receipt of RFIs.*

Please note that no further details of the planned solicitation can be made available to the vendors prior to issuance of the solicitation documents.

This RFI is issued subject to the conditions contained in the RFI introductory page available at <https://www.un.org/Depts/ptd/rfi>.

**RFI – Unmanned Aircraft System for Intelligence Surveillance and Reconnaissance (ISR)  
in support of MINUSCA, Central African Republic.**

**QUESTIONNAIRE:**

In addition to submitting the Vendor Response Form (page 5 of the RFI document), kindly provide answers to the following questions:

A) Provide your feedback and proposed solutions for the above-mentioned requirement.

Answer : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

B) Please provide details on estimated number of aircraft, personnel, sensors for each tasking line to meet the tasking requirements.

Answer : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

C) Please also indicate the infrastructure required at the MOB for the offered solution.

Answer : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

D) Please describe your technical solution for imagery distribution, including near real time full motion video up to 600 km away from the MOB. This must include distribution to multiple locations within CAR and mobile units operating in the area.

Answer : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

E) Do you have authorization from the relevant Authority to perform UAS operations?

Answer : \_\_\_\_\_

---

---

F) Quick reaction time (less than 60 min), mobility and flexibility to operate away from the MOB to/from unprepared areas is an important requirement. Please describe your minimum requirement for ground support, including infrastructure, security, logistic support, ATC, etc to safely operate your ISR service on a temporary basis including basic image/intelligence analysis from the mentioned locations.

Answer : \_\_\_\_\_

---

---

G) What is your maximum crew duty period and single sortie maximum duration based on crew limitations?

Answer : \_\_\_\_\_

---

---

H) Please provide clarification in the different levels of data exploitation that could be provided with this service and its requirements in terms of personnel, infrastructure and resources, including potential use of Artificial Intelligence/machine learning (AI/ML) solutions.

Answer : \_\_\_\_\_

---

---

I) What would be the lead time to position the solution from the time of contract signature?

Answer : \_\_\_\_\_

---

---



J) Please provide your system performance (maximum take of weight, take off and landing area requirements, Loiter time at 100KM, max Range, max endurance, speed limitations, operational ceiling,)

Answer : \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

K) Please provide details of your company's relevant past experience providing Airborne ISR services (manned and unmanned) in rainforest hot and humid weather type scenarios.

Answer : \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

L) Please outline the key entities (subcontractors/partners) that could be part of your offer for provision of the services. In particular, please identify the air operator (AOC holder), if different from your company.

Answer : \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

M) Without commitment, please provide an estimated yearly cost (or range) for the services of nine operational tasking lines flying a maximum of 120 hours per month each tasking line, on 24/7 basis availability. Please distinguish one-time setup costs and running costs and provide an indicative itemized breakdown as appropriate.

Answer : \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_