



United Nations Secretariat: United Nations Procurement Division (UNPD)

**REQUEST FOR INFORMATION (RFI)**

This notice is placed by UNPD. The accuracy, reliability and completeness of the contents of furnished information is the responsibility of United Nations Secretariat: United Nations Procurement Division (UNPD). You are therefore requested to direct all queries regarding this RFI to United Nations Secretariat: United Nations Procurement Division (UNPD) using the fax number or e-mail address provided below.

**Title of the RFI:**

Unmanned Aircraft System for Intelligence Surveillance, and Reconnaissance (ISR) in support of MINUSMA, Republic of Mali

**Date of this RFI:** 21 January 2022**Closing Date for Receipt of RFI:** 1 March 2022**RFI Number:** RFIUNPD19333**Beneficiary Country/Territory:** Mali**Commodity/Service category:** Airborne ISR**Address RFI response by fax or e-mail to the Attention of:** Ivan Ivanisevic**Fax Number:** n/a**E-mail Address:** ivanisevic@un.org; pd-pos-lts-aircharter-unhq@un.org**UNSPSC Code:** 46151600, 78111500, 25131705**DESCRIPTION OF REQUIREMENTS**

The purpose of this Request for Information (RFI) is to seek information on the capabilities of market suppliers and on the market solutions available for the provision of Intelligence, Surveillance and Reconnaissance (ISR) services. You are kindly requested to complete the Vendor Response Form and submit the completed Questionnaire to Ivan Ivanisevic at ivanisevic@un.org and pd-pos-lts-aircharter-unhq@un.org.

The UN may have a requirement and anticipates conducting a procurement exercise to establish a contract for an initial period of three (3) years, with the option to extend for two (2) additional years, for the provision of ISR services with a minimum of two (2) consecutive tasking lines (TLs) of Class I/II Unmanned Aircraft Systems (UAS) in support of the UN Multidimensional Integrated Stabilization Mission in Mali (MINUSMA). A tasking line is defined as the ability to operate one (1) UAS including aircraft and associated elements, and its sensors over an area of interest up to 250 km from the launch location for a minimum of 6 hours loiter time on target within 24 hour period, not including to/from launch site transit periods.

The UAS and service components will be mainly static, based and operated out of MINUSMA Main



Operating Base (MOB) in Kidal. The typical regional weather conditions in Kidal include high temperatures which frequently exceed 40 oC and wind speed not less than 25 knots including gust. The UN intends to provide basic support at its main UN bases and locations, however the UAS and associated personnel shall be capable of self-sustained activity at non-main base locations and site when and where required for operational reasons. However, it is essential for the UAS to be highly mobile with a small footprint to allow for rapid relocation away from the MOB for up to 7 days. When deployed, 2 x 6 hour loiter time at 250 km from the MOB/launching site TL are expected operational output. The UAS must be tactical in nature and able to integrate with existing military component and support elements in accordance with requirements of MINUSMA Force Adaptation Plan. The UAS must be capable of conducting persistent surveillance and reconnaissance by day and night at the operational level in the vicinity of Kidal and surrounding areas. In addition, radius of operation is 250 km with the emphasis of tactical support to MINUSMA Sector North Area of Responsibility (AOR) (Kidal, Aguelhok and Tessalit).

The nature of the austere airstrip in Kidal dictates that the UAS must be capable of take-off and landing from small and confined areas. Hence, vertical take-off and landing (VTOL) or catapult/pneumatic launch and hook/short airstrip/helipads recovery unmanned aircraft configuration is envisaged. However, the mission welcomes other novel potential solutions that could meet operational and safety requirements.

The UN is seeking information on a turnkey solution, including the provision of Class I or II UAS in accordance with the standards or equivalent with Annexes 1,6 and 8 of the Convention on International Civil Aviation (the Convention) and associated service components, maintenance and personnel (including 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.

The UN is looking to enter into a contract with a company that has a proven record of recent, similar operational and tactical experience, with at least two (2) years of previous continuous experience operating small/Tactical UAS in similar operational and hostile environments such as Mali. The ability to expedite the initial mobilization of the capability is essential.

It is expected that duration of the contract will be an initial period of three (3) years, with the UN's option to extend for two (2) additional 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/II UAS solution:

1. Availability of service. The UN anticipates acquiring a minimum of two (2) 24/7 TL which must be able to operate from its MOB in Kidal. However, due to operational exigencies, there is a potential for MINUSMA Force to deploy the asset to other locations on a temporary basis. Each TL must be available and operational on a daily basis and MINUSMA will plan with the vendor considering crew management and other factors 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 flight and ground crew and associated personnel to ensure at least, two (2) sorties of minimum 6 hours hours on station at 250KM per UAS TL on a 24 hours period, with a minimum range of 250 km (for both transmission and flight range) from the launch location and capable of transmitting near-real-time video simultaneously to multiple Remote Viewing Terminal (RVT) at least 50 km slant range. The UAS must be able to operate in extreme climate up to 50 o C and terrain conditions and winds up to 30 knots including gust. The UN estimates a flight time of 300 hours per month for the UAS service (2 TLs, 150 h each), which might vary by month depending on environmental and operational factors. These estimated flight hours do not include currency or training requirements, just operational mission flight time. It is envisioned that operations will occur during day and night. Personnel must be able to shift from day to night operations and vice versa when directed by MINUSMA to support



24/7 operational requirements.

2. The UAS must be able to operate in uncontrolled and unsegregated airspace. The UAS must be equipped with transponder 3/A and C, and mode S for ACAS/TCAS II. In addition, UAS should be equipped with ADS-B transponder (IN and OUT) as per ICAO and Malian Airspace Use Regulations. UAS must have flight tracking hardware (100nm transmission) and Ping Station (receiver) to integrate with UN web-based aviation flight tracking service (Skyrouter).

3. The system must be able to take off and land (launch and recovery) within a 100 ft. x 100 ft. area bounded by 100 ft. high obstacles. Additional landing area preparation is not possible. Additional landing area preparation is not possible.

4. The UN intends to provide basic support at the MOB in Kidal, however the UAS and associated personnel shall be capable of self-sustained activity at non-main base locations and site when and where required for operational reasons. Self-sufficient high mobility and regular operations within Mali AOR is an essential requirement.

5. The capability should be compatible to a standard video downlink according to Standardization Agreement (STANAG) 4609 and 4586.

6. 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.

7. The UAS personnel including flight and ground crews, payload operators and imagery/full motion video analysis shall have certified qualification and/or training to perform their respective functions during ISR operations in accordance with their National Aviation Authority criteria, applicable ICAO Annexes and SARPs, national (Malian) and UN regulations.

8. UAS components, including aircraft, sensors and related equipment must be adapted to operate in adverse weather environment.

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

10. The Vendor should provide internet subscription-based satellite weather information service or similar solution to have adequate weather forecast capability to plan and conduct the ISR tasks.

11. Class I/II UAS operators who wish to provide services to the UN shall have established, implemented and maintained a management system that:

a. 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.

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

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

12. Sensor capabilities. The UAS must have a Full Motion Video (FMV) sensor with an Electro-Optical/Infra-Red (EO/IR) capability for day/night operations. The capability must include as desirable criteria Synthetic Aperture Radar (SAR)/Ground Moving Target Indicator (GMTI) capability.

A. EO/IR High Definition (HD) Sensors.

Minimum Ground Separation Distance (GSD) of 40cm, ideally 20cm. Both EO cameras must be capable of



High Definition (HD) output resolution of 720P 24Hz or higher. IR camera will have 640x480 resolution as minimum. 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 reflected on map and sensor display.
- 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.
- xii. On EO minimum 20 x optical zoom is required with additional digital zoom, while on IR minimum 2 x optical zoom is required with additional digital zoom.
- xiii. HD Video recording.

#### B. SAR/GMTI Sensors.

For moving targets, SAR/MTI sensors shall be able to detect and locate moving surface land vehicles such as a motorbike sized target from at least 35km from the UAS. Minimum speed resolution for moving targets of 10 km/h. Minimum GSD of 30cm.

For the purposes of Reconnaissance and Surveillance, the SAR shall be able to perform:

- i. Wide Area search (e.g. STRIPMAP and SWATH) for wide area monitoring of compounds, roads and major LOC's up to 30km.
- ii. High Resolution and Ultra High-Resolution Spot search for target recognition and identification between 0.3 to 0.1m resolution for a maximum 1 x 1 km area.
- iii. SAR – multi-pass techniques for coherent change detection (CCD), height measurement and 3-D imaging.
- iv. SAR – Low frequency for counter CCD, mapping building structure and ground penetration.

#### 13. Imagery Distribution.

- a. The UAS should 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. .ts) including all relevant metadata. The vendor must provide "FMV with metadata" viewing software. The software must be UN approved for loading on to the MINUSCA network. The vendor solution must include an organized and searchable video/imagery database by common fields like date/time/geo coordinates, etc.
- c. Remote Viewing Terminals (RVT). The UAS should have 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 30km from the aircraft.

d. Dual Payload. It is desirable for the UAS to be capable of carrying dual payload and additional sensors, if required due to MINUSMA operational tempo and exigencies.

**Vendor Registration:**

Vendors will need to be registered at Level 2 in UNGM to be considered for a contract award. 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>

**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>

***Vendors interested in participating in a potential future solicitation process should submit the Vendor Response Form of this RFI electronically (through the link available on the next page) before the closing date set forth above.***



# VENDOR RESPONSE

## NOTICE

- Companies can only participate in solicitations of the UN Secretariat after completing their registration (free of charge) at the United Nations Global Marketplace ([www.ungm.org](http://www.ungm.org)).
- Please verify that your company is registered under its **full legal** name on the United Nations Global Market Place ([www.ungm.org](http://www.ungm.org)) and that your application for registration as vendor has been submitted to the **UN Secretariat** in the same site, to be able to participate in any potential solicitation process as a result of this RFI.
- While companies can participate in solicitations after completion of registration at Basic Level, we strongly recommend all companies to register at least at **Level 1** under the United Nations Secretariat prior to participating in any solicitations.

**PLEASE NOTE: You should submit your response to this RFI electronically at:**  
<https://www.un.org/Depts/ptd/node/add/interest-expressed?EOI=RFIUNPD19333>

**In case you have difficulties submitting your response electronically, please contact [ivanisevic@un.org](mailto:ivanisevic@un.org); [pd-pos-lts-aircharter-unhq@un.org](mailto:pd-pos-lts-aircharter-unhq@un.org) directly for instructions.**



## RFI INSTRUCTIONS

### 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>. Vendors must complete the registration process prior to the closing date of the RFI. Vendors who have not completed the UNGM registration process with the UN Secretariat before the closing date of the RFI are not considered eligible to participate in the potential solicitation process related to the RFI. We strongly recommend all companies to register at least at Level 1 under the UN Secretariat prior to participating in any solicitations.

**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 participating in the potential solicitation process should forward their information (as requested in the RFI) to United Nations Secretariat: United Nations Procurement Division (UNPD) (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 potential 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 United Nations Multidimensional Integrated Stabilization Mission in Mali.**

**QUESTIONNAIRE:**

In addition to submitting the Vendor Response Form, kindly provide answers to the following questions:

A) Please provide your feedback on whether your company has the capacity to provide the services as described and if so, what solutions would be viable to meet the requirement?

Would your company face any challenges with providing a solution to the requirements described?

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

B) Please provide details on the launch and recovery of the unmanned aircraft configuration envisaged.

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

C) Please provide details on how your company achieves the capability to operate UAS in uncontrolled and unsegregated (common) airspace.

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

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

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

E) Please also indicate the infrastructure required at the main operating base (MOB) and any other operational site to enable your company to offer a competitive solution.

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

F) Please describe your company's technical solutions available for imagery distribution, including near real time full motion video up to 250 km away from the MOB. This must include distribution to multiple locations within Mali and mobile units operating in the area.

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

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

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

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

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

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

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

J) 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 : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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

L) Please provide your system performance (maximum take of weight, take-off and landing area requirements, Loiter time at 250 km, max Range, max endurance, speed limitations, operational ceiling)

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

M) 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 : \_\_\_\_\_

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N) Would your company anticipate relying on the capacities of subcontractors or partners as part of a service solution to offer the UN? Would you anticipate relying on an air operator (AOC holder) that is different than your company?

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

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O) Without commitment, please provide an estimated yearly cost (or range) for the services of two (2) operational tasking lines (TLs) flying a maximum of 150 hours per month each tasking line (300 h per month for 2TLs), on 24/7basis availability. Please distinguish one-time setup costs and running costs and provide an indicative itemized breakdown as appropriate, including cost per each TL and additional TLs if needed by MINUSMA in the future.

In addition to the estimated annual cost of two (2) operational tasking lines (as per above), to allow the UN full understanding on potential cost impact in case of simultaneous tasking lines, please also provide estimated annual cost for the two (2) simultaneous tasking lines.

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

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P) Vendors may offer alternatives to the requirement outlined in this Request for Information. Any such alternative may be considered by the United Nations provided that such alternative is cost-effective and operationally acceptable, at the sole discretion of the United Nations. If your company can offer an alternative solution to meet the subject requirement, please provide the relevant technical details here, attach all necessary supporting documentation and also specify the estimated annual cost for the proposed alternative solution.

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

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