Questions & Answers for:

Drone Delivery of Health Products in the Democratic Republic of Congo
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Questions and Answers

Technical Requirements

1. With reference to ADS-B, specifically, “The aircraft must be equipped with a device such as ADS-B, which allows real-time monitoring and integration into a UTM”; are we able to clarify if VillageReach mean ADS-B in (only), or ADS-B (in and out)

   ADS-B OUT is a mandatory requirement, ADS-B IN is highly desirable as an additional capability.

Take-off and Landing Locations

2. Annex C. Map of potential hard-to-reach health facility delivery locations shows the Muzanza Luazi location in the Republic of Congo and the Palabala Nsona Mpangu location in Angola. Are these pins representing approximate locations or is there an expectation of delivery to locations outside DRC?

   These pins are approximate locations that will be validated during the site surveys during Period 1. The actual delivery locations will be in DRC.

   As dependent on the response given to this question, if the delivery locations are outside of DRC, have the relevant National Aviation Authorities been engaged?

   Not applicable as the delivery locations will be within DRC.

3. Annex C - Map: Where are the Major hospitals within the location; or areas you deem likely to be Distribution Hubs?

   We do not have this information at this time as exact locations will be determined during Period 1.

4. Could we have the exhaustive list and GPS coordinates of all the Zone Health Offices where drone batteries could be recharged/swapped? Is there any MoH staff we could rely on at these sites to recharge and swap the batteries? Would we add additional battery recharging sites if need be?

   Zone health offices have been added to the Annex C. Map of potential hard-to-reach health facility delivery locations.

   Please allocate and budget for your company’s local staff to be at battery swapping locations. There will also be MoH staff at these locations who can be trained to act as a backup to dedicated staff from your company.

   Once the drone service provider is selected, we can assess together with the government in each province which sites would be most appropriate as battery recharging sites – typically the Zone Health Offices have more reliable electricity sources and more staff who could take on this additional role, but other health facilities may meet these needs.

5. We understand that the determination of the drone delivery sites is currently underway. Will
the selected vendor be associated to this discussion or will the 75 drone delivery sites be established ahead of phase 3/Period 1?

The selected vendor will be involved in discussions related to determining the 75 delivery sites during Period 1. Vendors are expected to remotely attend the project design workshops in Period 1, where the priority sites will be initially selected. Vendors will also be consulted to determine if the prioritized sites are unsuitable for selection due to regulatory, geographic, or other reasons.

6. Is it expected that our drone land at destination every time it delivers its cargo? Could we parachute the cargo when a 2-way delivery is not needed? Do you have a sense of which facilities will require landing at destination vs. those that won’t? Are there routine ‘loading at destination’ activities or is ‘loading at destination’ mainly for emergency?

Yes, 2-way delivery is required at all sites at all times to collect laboratory samples, reports, and proof of delivery. “Loading at destination” will be required at every facility for every delivery. While this does not mean that each facility will have something to send back by drone every time, facilities must have the opportunity and the flexibility to do so, as many of them are in hard-to-reach areas where travel by road is difficult. Many facilities also do not have mobile/internet connectivity, so communication prior to each delivery might not be an option.

7. Will maintenance and office space be available in drone hubs?

Yes. Please indicate your recommended space requirements for the hub and include required equipment to furnish the office space in your budget.

8. Could additional and/or different drone hubs be selected to accommodate for drone range, local winds and relief?

Exact hub locations have not been determined yet and vendors will be consulted to select locations during Period 1. The hubs would be located near the MoH product storages facilities. Secondary hubs can be added if needed to accommodate specific vendor capabilities.

Operations & Logistics

9. In order to be successful in transitioning activities to locally hired staff, could we have an idea of the number of graduates per year and the content of technical training received from civil aviation school(s)?

Currently, there are no technical training schools in DRC in order to provide this information. You can assume trainees would have international training equivalent to courses provided at the African Drone and Data Academy in Malawi. As requested in the Vendor Response Template, please list the minimum entry requirement (mandatory licenses, certifications, or experience) for relevant staff to be trained on your system. If requirements are different for various positions (ex. pilot vs. hub assistants), please list per position.
VillageReach is available to assist vendors with recruitment within DRC and from other African countries if required.

10. Is power supply stable and reliable at drone hubs and at Zone Health Offices (ZHO)? Do we need to account for generators? If so, are generators easily available in DRC (if so at what cost) or should they be imported?

   Power supply is not stable so please account for sufficient generators. 3KVA generators are easily available in DRC and cost $1200. Fuel costs for hub generators is on average $120/month.

11. Can you confirm that drone hubs are equipped with all necessary materials to keep integrity of medical products, including refrigeration, until they are taken in charge by drones?

   Yes, cold chain equipment (CCE) is available at the hubs and vendors are not responsible for procuring or maintaining CCE.

12. What will be the actual duration of the "Period 2- Phase 3 flight operations"? Annex D mentions 24 months of flight operations while the title "Period 2- Phase 3 flight operations (TBD 1+ year period starting in 2022, pending funding)" seems to indicate 12 months of flight operations only. What does "TBD 1" stand for?

   The actual duration of operations is dependent on funding but for the purposes of developing an estimated Period 2 budget, please assume 24 months of flight operations.

   "TBD 1+ year" is referring to more than one year of operations, to be determined once funding is received.

13. Can MoH provide a small fleet of vehicles for the project or should rental of cars be budgeted?

   VillageReach and MoH will provide vehicles for this project. This does not need to be included in your budget.

14. In order to reduce drone rental costs, would it be possible to fly on Saturdays?

   It is unlikely that we would schedule routine deliveries on Saturdays, as we need to match the health facilities’ schedules (health workers must be present to receive the drone delivery). In some instances, Saturdays are used to make up for rescheduled deliveries due to weather or health worker unavailability to receive deliveries during the work week.

Regulations, Flight Approvals, and Importation

15. Is VillageReach going to continue to manage the approval and the relationship with the AAC?
AAC requested that a local organization manage the approval and relationship process, so unless these requirements change or the drone company officially registers as a local entity in DRC, VillageReach will continue to manage the relationship with the AAC, as an intermediary to the drone service provider.

16. Has VillageReach clarified AACs position on one remote pilot flying many remotely piloted aircraft?

The DRC Drone regulations do not mention any rules around how many remotely piloted aircraft a single pilot can fly at one time, and AAC has not placed any restrictions to date. We can raise this with AAC when applying for flight approvals prior to Phase 3.

17. What do you expect the "Flight authorization request" and a "safety package" to comprise exactly? More specifically, what UAV-related certifications are requested by the DRC authorities?

The following documents are required to submit to the CAA for the initial flight authorization request and safety package:

- Drone Network Map
- Network Overview
- RPA Route Progression
- Global Insurance Certificate
- Operational Procedures (Library)
- Operational Checklists Combined
- DRC Specific Operations Manual
- Legal Person (Certificate of Incorporation)
- Remote Pilot details
- Flight Manual
- Training and Checking Manual
- Aircraft Images
- List of drones
- FOAAC-AIR-06-01 form
- FOAAC-AIR-06-02 form

For flight authorization renewals, the following are required to submit:

- FOAAC-AIR-06-01 form
- FOAAC-AIR-06-02 form
- Request letter for the extension of authorization

For more information on DRC drone regulations (in French), please visit:

and
https://aacrdc.org/WebAAC/DRONES/DEC026AERONEFTELEPILOTESENDRDC.pdf
18. What do the importation authorization materials entail exactly?

   The following documents are required from the drone service provider:
   - Drone and associated equipment importation list

19. How does the 40% import duties work:
   a. If drones are assembled locally in DRC, is the 40% import duty tax applicable on components and spare parts?
      Yes, fees are applicable for any components and spare parts imported to assemble drones.
   b. If drones are assembled in another location, is the 40% import tax applicable to the overall value of the vehicle?
      Yes.
   c. Is the 40% applicable regardless of operating model (renting of vehicles or sale of vehicle to MoH)?
      Yes, but please be aware that neither the MoH nor VillageReach will purchase drones/vehicles as this RFP is to procure outsourced drone transportation services.

20. What does it take to obtain a local drone pilot certification from the local CAA? Would our staff be allowed a) to fly our drones in DRC b) train local drone pilots? If not, what would they need from the CAA?

   There is no remote pilot certification process in DRC currently. To date, submission of an international Remote Pilot Certificate to the CAA has been sufficient.

   International staff would be allowed to fly drones in DRC, after receiving approval from the CAA. International staff will also be allowed to train local pilots, whom already have an international Remote Pilot Certificate and have been approved by the CAA, to fly your specific aircraft.

21. Existing drone providers already flying their UAV in DRC can seem to have a competitive advantage, for example when it comes to flight authorization application. How could this gap be mitigated?

   The government of DRC (CAA and Ministry of Health) welcomes open competition and wanted to issue a global request for proposals in order to select the most appropriate drone service provider to meet the needs in Kinshasa and Kongo Central provinces. There are no drone operators in these provinces, and DRC is a vast country that can accommodate more than one drone operator. Additionally, as mentioned in the RFP, we have a standard list of evaluation criteria that all proposals are evaluated under. Under the “Experience” criteria, vendors’ experience will be equally weighted if it was in a similar operating environment to DRC.

**Budget**

22. In order to help develop an accurate budget, could we have a sense of the fully loaded monthly costs of an aeronautical engineer/pilot in DRC?
VillageReach does not directly hire drone pilots, so we do not have this information. For the purposes of this budget, you can estimate that the monthly cost would be at minimum $3,000.

Security

23. Are the areas to be flown over subject to unrest and/or armed conflicts? Is there a risk that our drones could be shot at from the ground? Should specific safety features for international staff be considered?

No, Kinshasa and Kongo Central provinces are not subject to unrest or armed conflicts. There is a very low risk that drones could be shot at from the ground due to unrest or armed conflict. No specific safety features for international staff need to be considered beyond routine international travel and evacuation insurance, as would be required for travel to any secure country.

24. Will the vendor have secure storage capacity for batteries at ZHO? Should we account for security service or are those facilities managed / secured by MoH extension services?

You do not need to account for security services at the Zone Health Offices. VillageReach will pay for these services if not provided by the MoH. This will be determined after locations are finalized.

25. What surface / capacity of secure storage will be provided to the vendor in drone hubs? Should additional security services be accounted for?

You do not need to account for security services at the drone hubs. VillageReach will pay for these services if not provided by the MoH. This will be determined after locations are finalized. At a minimum, locked storage areas and security guards will be provided.