**Q&A #3**

**RFP #671541**

**Unmanned Aerial System**

1. Questions:
2. Sufficient payload to carry any 2 of the specified sensors requested.

Answer: Both VNIR and SWIR sensors need to have the ability to image near vertical surfaces from the airborne platform. If the vendor can show that this can be achieved with the SWIR-fixed mount then that is acceptable. Co-mounting VNIR and SWIR is not required.

1. 24-minute flight time and 3 sets of batteries. This flight time may not be achievable depending on weather conditions.

Answer: 24-minute flight time is average flight time for a single sensor.

1. Ability to safely land with single motor/rotor failure.

Answer: We understand that no multi-rotor UAV is guaranteed to land with a single rotor failure but that machines with more than 4 rotors are more likely to survive a single rotor.

1. Capability for 2 downward facing gimbals of independent control. Gimbals selectable for gyro, synchronized control or independent control with 360-degree in horizontal plane and 180 degrees in vertical plane or capability to simulate without changing platform flight direction. What core functionality is important for the desired gimbal control? Does the integration of a LiDAR sensor and a hyperspectral imaging camera on a single gimbal provide the desired functionality? If 2 gimbals are essential, then a fixed-wing solution is likely necessary.

Answer: The required application is for imaging with the SWIR and preferably LiDAR, on near vertical surfaces such as outcrops. In this particular case, a dual single-mount gimbal is acceptable. Independent control sensors on a dual-gimbal is preferred but not required. This configuration is most important when integrating multi- or hyper-spectral with RGB frame cameras.

1. Two provided remotes with the capability to control all gimbals from 1 or 2 remotes (selectable). What if multiple gimbals are not currently supported?

Answer: Independently controlled dual gimbals are preferred to enable imaging of two different areas simultaneously. However, it is a preferred capability and not required.

1. First person view (FPV) capable or upgraded to FPV. What if a separate gimbal for a DSLR is not currently supported?

Answer: FPV sensor is not required to be a DSLR camera. It is intended to provide navigation aid in a live video feed. Navigation and safety are the primary concerns.

1. Capable of integration with compatible multi-platform cloud-based streaming system?

Answer: This applies to sensors and data image types that are commercially supported in cloud-based processing platforms. This is not required for either HSI or LiDAR data. We understand that virtually all offerings that meet our needs offer this capability.

1. 3 airborne sensors with gimbals and POS.
2. Sensor 2. Both sensor 1 and sensor 2 should have software to assemble the images included. The VNIR system covers this range; the Nano-Hyperspec offers the longest flight time. The co-aligned system covers the requested range for both sensors 1 and 2, however this reduces the flight time to ~10 minutes. The extended VNIR system almost covers the entire requested range (600-1700 nm). The requested ranges are 400-900 nm and 1300-1700 nm – if the customer does not need 400-600 nm, both ranges will be covered with a single camera that can be integrated with a LiDAR sensor.

Answer: If a single sensor covers the entire requested range, it is an acceptable solution.

1. 1 gimbaled mount to mount to support DSLR operation and meeting requirement in 1j. Interchanging gimbal mounts on a UAV is not recommended. It is preferable to pre-configure the systems as needed.

Answer: Noted and will be considered in the review process.

1. Integrating scheduling, pilot and platform logging meeting FAA requirements; records flights for later evaluation/analysis.

Answer: The ability to image in the 400-900 and 1300-1700nm range simultaneously on the same platform is not required. As stated in the RFP, vendors are encouraged to bid with configurations that meet only some of the qualifications.