ITB/SMM/11/2011 - Question and Answers

Batch 2

1. RE: *1.9 - Encrypted data storage of mission information (raw imagery, mission logs etc.)*
Does this mean on board the aircraft or on the ground segment?

Answer: On the aircraft, if raw data is stored on board the UAV.

2. RE: *1.10 - Inertial Navigation System or equivalent.* Is a GPS/GLONASS/GALILEO/BEIDOU navigation with dead reckoning capability, IMU unit and magnetometer considered an INS equivalent for the purposes of this tender?

Answer: Yes, navigation with GPS/GLONASS/GALILEO/BEIDOU, with dead reckoning, IMU and a magnetometer will be considered for the purposes of the tender.

3. RE: *1.11-Resistance to jamming (GPS and data link) – FHSS; emergency return to home procedures in case of data link and GPS loss.* Since there are many jamming techniques, what kind of resistance is required? Nominal as per specs of the navigation system or particular? Does experience in operational scenarios without jamming incidents count as proof of resistance to jamming?

Answer: We require resistance to both data/video link jamming as well as UAV GPS jamming. The UAV platform should be equipped with failsafe mechanisms which allow the UAV to return to the launch location in case the operators completely lose connectivity and control over the equipment or in case of full GPS loss. Please provide any supporting information on your experience and lessons learned regarding to UAVs operating in environments where jamming was applied and please provide a detailed explanation of the anti-jamming techniques/equipment included in the UAV package offered.

4. RE: *1.13-Landing lights.*
What is considered a landing light in this case? Navigation RED/GREEN on wings and WHITE in front? Bottom or top or airframe? Strobe? Please specify. IR or visible light?

Answer: In order to ensure that the UAV has a low visual signature during night flights, navigation lights are not necessary and should be removed if provided as a standard package. We require lights which are activated only during the landing procedure, either on the bottom or top of the airframe, preferably visible light.

5. RE: *3.2   Encrypted data transmission air-to-ground (AES 128 or AES 256).*
Is AES 128 and 256 required for both the payload and command and control link or only for the command and control link. What about other types of encryption and private key video scrambling systems? Are these also valid options?

Answer: We require that the data link (including transmission of video and telemetry data) is fully encrypted. Please provide information on the other encryption techniques that are applied to your UAV.

6. Is the tender for two vehicles and 1 ground segment or two completely separate systems with 1 vehicle and 1 ground segment EACH, i.e. separate completely autonomous capabilities, enabling two teams to work independently and simultaneously?

Answer: the requirement is two (2) completely separate systems enabling two teams to work independently.