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| | | ASN | 2007-AHQ-56-COA |
| | | Case Status | EXPIRED |
| | | Date Created | 09/05/2007 |
| | | Date Submitted | 11/30/2007 |
| Proponent Organization | | Sponsor | NASA ARC |
| | | Attn Of | Mark Sumich |
| | | Address | Aviation Management Office |
| | | Address2 | Mail Stop 158-1 |
| | | City | Moffett Field |
| | | State | CA |
| | | Postal Code | 94035 |
| | | Telephone | (650)604-6193 |
| | | Email | msumich@mail.arc.nasa.gov |
| Declaration | | Declaration(a) | Yes |
| | | Declaration(b) | Yes |
| Point of Contact | | Representative | Stanley Herwitz |
| | | Address | UAV Collaborative |
| | | Address2 | NASA Research Park MS 18-2 |
| | | City | Moffett Field |
| | | State | CA |
| | | Postal Code | 94035 |
| | | Telephone | (650)604-2192 |
| | | Email | sherwitz@mail.arc.nasa.gov |
| Operational Description | Requested Effective Period | Beginning | |
| | | End | |
| | | Light out operation | Yes |
| | | VFR operation | Yes |
| | | IFR operation | No |
| | | Day operation | Yes |
| | | Night operation | No |
| | | Program Executive Summary | The Bat-3 UAV will be operating at Crows Landing for the purpose of NASA flight training and pilot proficiency activities, payload testing, and the acquisition of airborne imagery of the agricultural fields within the defined flight area. |
| | | Operational Summary | The frequency of the Bat-3 UAV operations at Crows Landing in California is expected to be approximately 1 time per month. The number of Bat-3 UAV flights at Crows Landing is expected to be approximately 2 to 6 flights per operational deployment. The anticipated duration of each flight is expected to be approximately 15 to 240 minutes. |
| | Location | State | CA |
| | | County | Stanislaus |
| | | Nearest Airport | CROWS LANDING |
| | | AOR | California - Northern |
| | Class Of Airspace | Class-A | |
| | | Class-B | |
| | | Class-C | |
| | | Class-D | |
| | | Class-E | Yes |
| | | Class-G | Yes |
| System Description | | Aircraft Type | |
| | | Aircraft Type And Model Description Attachment | 1 |
| | | Control Station Attachment | 1 |
| | | Communications System Attachment | 1 |
| | | List Certified Components (TSO) Attachment | 1 |
| | | Other Attachment | 0 |
| Performance Characteristics | | Climb Rate (feet/Minute) | 1000 |
| | | Descent Rate (feet/Minute) | 800 |
| | | Turn Rate (Degrees/Second) | 20 |
| | Cruise Speed | Maximum | 60 |
| | | Minimum | 30 |
| | | Approach Speed | 35 |
| | Operating Attributes | Maximum MSL | 9000 |
| | | Minimum MSL | 0 |
| | | Gross Takeoff Wt | 23.0 |
| | | Launch/Recovery Attachment | 1 |
| Airworthiness | | FAA Type Certificate | |

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| | | If No FAA Certificate (Public Aircraft Only) Attachment | 1 |
| Procedures | | Lost Link/Mission Procedures Attachment | 1 |
| | | Lost Communications Procedures Attachment | 1 |
| | | Emergency Procedures Attachment | 1 |
| Avionics/Equipment | | Equipment Suffix Type | X |
| | | GPS | Yes |
| | | Moving map indicator (Command Station) | Yes |
| | | Tracking capability | Yes |
| | | TCA/MCAS | No |
| | | ELT | No |
| | Transponder | Transponder | No |
| | | On | |
| | | Off | |
| | | Standby | |
| | | Ident | |
| | | Mode S | |
| | | Mode C | |
| | | Transponder Retuneable in Flight | |
| Lights | | Landing | No |
| | | Position/Navigation | No |
| | | Anti-collision | No |
| | | Infrared (IR) | No |
| Spectrum Analysis Approval | | Data Link | Yes |
| | | Data Link Attachment | 0 |
| | | Control Link(s) | Yes |
| | | Control Link Attachment | 0 |
| | | Operations utilizing Radio Control (R/C) frequencies as described in Title 47 CFR 95 | Yes |
| | | NTIA/FCC Authorization Attachment | 1 |
| ATC Communications | Transmitter VHF Band | VHF Band | Yes |
| | | Quantity | 1 |
| | | In-Flight Retunable | No |
| | Transmitter UHF Band | UHF Band | No |
| | | Quantity | |
| | | In-Flight Retunable | No |
| | Transmitter HF band | HF Band | No |
| | | Quantity | |
| | | In-Flight Retunable | No |
| | Receiver VHF Band | VHF Band | Yes |
| | | Quantity | 1 |
| | | In-Flight Retunable | No |
| | Receiver UHF Band | UHF Band | No |
| | | Quantity | |
| | | In-Flight Retunable | No |
| | Receiver HF band | HF Band | No |
| | | Quantity | |
| | | In-Flight Retunable | No |
| | Guard (Emergency) Frequencies VHF Band | VHF Band | No |
| | | Quantity | |
| | Guard (Emergency) Frequencies UHF Band | UHF Band | No |
| | | Quantity | |
| | Instantaneous Two-Way Voice | Direct to pilot | No |
| | | SATCOM | No |
| | | Relay via aircraft | No |
| Electronic Surveillance/ Detection Capability | | EO/IR | No |

| | | | |
|--|--------------------------|---|--|
| | | Terrain detection | No |
| | | Weather/icing detection | No |
| | | Radar | No |
| | | Other Attachment | 0 |
| | | Electronic detection systems | No |
| | | Electronic detection systems attachment | 0 |
| | | Radar observation | No |
| | | NAS Operational Capability Attachment | 0 |
| Visual Surveillance/ Detection Capability | Maximum Distance from UA | Vertical | 2500 Feet |
| | | Horizontal | 1.0 Nautical Miles |
| | | Airborne based (Chase Aircraft) | No |
| | | Ground based | Yes |
| | | Visual observation from one or more ground sites | Yes |
| | | Forward or side looking cameras | No |
| | | Attachment for All | 1 |
| Aircraft Performance Recording | | Flight data recording | Yes |
| | | Control station recording | Yes |
| | | Voice Recording | No |
| Flight Aircrew Qualifications | Pilots | Private (Written) | Yes |
| | | Private (Certified) | No |
| | | Instrument | No |
| | | Commercial | No |
| | | Air Transport | No |
| | | Unique Trained Pilot | No |
| | | Unique Trained Pilot Description | PIC has passed the private pilot written exam. |
| | | DOD certified/trained | No |
| | | Other Certified Training | No |
| | | Trained on FAR Part 91 Requirement | Yes |
| | | Medical Certification Class (FAA or DOD equivalent) | 3 |
| | | Currency Status | Current. |
| | | Duty Time Restrictions | None. |
| | | Single UAS Control | Yes |
| | | UAS Description | |
| | | Total Numbers of UAS Controlled | 1 |
| | Observers | Private (Written) | No |
| | | Private (Certified) | No |
| | | Instrument | No |
| | | Commercial | No |
| | | Air Transport | No |
| | | Unique Trained Pilot | No |
| | | Unique Trained Pilot Description | N/A |
| | | DOD certified/trained | No |
| | | Other Certified Training | No |
| | | Trained on FAR Part 91 Requirement | Yes |
| | | DOD Certified Training Attachment | 0 |
| | | Medical Certification Class (FAA or DOD equivalent) | 3 |
| | | Currency Status | Current. |
| | | Duty Time Restrictions | None. |
| | | Single UAS Control | Yes |
| | | UAS Description | |
| | | Total Numbers of UAS Controlled | 1 |
| Special Circumstances | | Special Circumstances | <p>Note that the Waypoint specified on the Flight Operations Area/Plan page corresponds to the Departure point. The flight area is depicted on the attached map.</p> <p>Note that 2-way voice communication takes place between the Range Safety Officer (safety observer), any other ground observers and ATC. The Range Safety Officer stands next to the PIC and can immediately convey ATC instructions.</p> |

Flight Operations Area/Plan

| Type | User Defin | Point | Loc ID | Degree | Distance | Latitude | Longitude | MSL Ceilin |
|-----------|------------|-------|--------|--------|----------|----------|-----------|------------|
| DEPARTURE | | | | | | | | |

Total Map Attachment 1

| MSL Floor | Maximum | Minimum | S Radius | SUA Description | |
|-----------|---------|---------|----------|-----------------|------|
| | 37-24 | 30.00N | | 121-06-30.00W | 2500 |

0

60

30

6.0