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| | | ASN | 2010-ESA-44-COA |
| | | Case Status | APPROVED |
| | | Date Created | 10/07/2010 |
| | | Date Submitted | 12/18/2010 |
| Proponent Organization | | Sponsor | Mississippi State University |
| | | Attn Of | (b) (6) |
| | | Address | 617 Allen Hall |
| | | Address2 | |
| | | City | Mississippi State |
| | | State | MS |
| | | Postal Code | 39762 |
| | | Telephone | (662) 325-3570 |
| | | Email | (b) (6) |
| Declaration | | Declaration(a) | Yes |
| | | Declaration(b) | Yes |
| Point of Contact | | Representative | (b) (6) |
| | | Address | 6852 Water Street |
| | | Address2 | |
| | | City | Navarre |
| | | State | FL |
| | | Postal Code | 32566 |
| | | Telephone | (850) 902-7041 |
| | | Email | (b) (6) |
| Operational Description | Requested Effective Period | Beginning | |
| | | End | |
| | | Light out operation | No |
| | | VFR operation | Yes |
| | | IFR operation | No |
| | | Day operation | Yes |
| | | Night operation | No |
| | | Program Executive Summary | (b) (3) (A), (b) (4) |
| | | Operational Summary | (b) (3) (A), (b) (4) |
| | Location | State | MS |
| | | County | Lowndes |
| | | Nearest Airport | GOLDEN TRIANGLE RGNL |
| | | AOR | Mississippi |
| | Class Of Airspace | Class-A | |
| | | Class-B | |
| | | Class-C | |
| | | Class-D | Yes |
| | | Class-E | |
| | | Class-G | |
| System Description | | Aircraft Type | (b) (3) (A), (b) (4) |
| | | Aircraft Type And Model Description Attachment | 1 |
| | | Control Station Attachment | 1 |
| | | Communications System Attachment | 1 |
| | | List Certified Components (TSO) Attachment | 1 |
| | | Other Attachment | 1 |
| Performance Characteristics | | Climb Rate (feet/Minute) | 400 |
| | | Descent Rate (feet/Minute) | 1000 |
| | | Turn Rate (Degrees/Second) | 3 |
| | Cruise Speed | Maximum | 120 |

| | | | |
|----------------------------|--|--|--------|
| | | Minimum | 60 |
| | | Approach Speed | 65 |
| | Operating Attributes | Maximum MSL | 30000 |
| | | Minimum MSL | 300 |
| | | Gross Takeoff Wt | 2750.0 |
| | | Launch/Recovery Attachment | 1 |
| Airworthiness | | FAA Type Certificate | |
| | | 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 | A |
| | | GPS | Yes |
| | | Moving map indicator (Command Station) | Yes |
| | | Tracking capability | Yes |
| | | TCA/MCAS | No |
| | | ELT | No |
| | Transponder | Transponder | Yes |
| | | On | Yes |
| | | Off | Yes |
| | | Standby | Yes |
| | | Ident | Yes |
| | | Mode S | Yes |
| | | Mode C | Yes |
| | | Transponder Retuneable in Flight | Yes |
| Lights | | Landing | Yes |
| | | Position/Navigation | Yes |
| | | Anti-collision | Yes |
| | | Infrared (IR) | Yes |
| Spectrum Analysis Approval | | Data Link | No |
| | | Data Link Attachment | 0 |
| | | Control Link(s) | No |
| | | 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 | 2 |
| | | In-Flight Retunable | Yes |
| | Transmitter UHF Band | UHF Band | Yes |
| | | Quantity | 2 |
| | | In-Flight Retunable | Yes |
| | Transmitter HF band | HF Band | No |
| | | Quantity | |
| | | In-Flight Retunable | No |
| | Receiver VHF Band | VHF Band | Yes |
| | | Quantity | 2 |
| | | In-Flight Retunable | Yes |
| | Receiver UHF Band | UHF Band | Yes |
| | | Quantity | 2 |
| | | In-Flight Retunable | Yes |
| | Receiver HF band | HF Band | No |
| | | Quantity | |
| | | In-Flight Retunable | No |
| | Guard (Emergency) Frequencies VHF Band | VHF Band | Yes |

| | | | |
|---|--|---|--|
| | | Quantity | 1 |
| | Guard (Emergency) Frequencies UHF Band | UHF Band | No |
| | | Quantity | |
| | Instantaneous Two-Way Voice | Direct to pilot | Yes |
| | | SATCOM | No |
| | | Relay via aircraft | Yes |
| Electronic Surveillance/ Detection Capability | | EO/IR | Yes |
| | | Terrain detection | No |
| | | Weather/icing detection | Yes |
| | | Radar | Yes |
| | | Other Attachment | 0 |
| | | Electronic detection systems | No |
| | | Electronic detection systems attachment | 1 |
| | | Radar observation | Yes |
| | | NAS Operational Capability Attachment | 0 |
| Visual Surveillance/ Detection Capability | Maximum Distance from UA | Vertical | 2500 Feet |
| | | Horizontal | 2.5 Nautical Miles |
| | | Airborne based (Chase Aircraft) | No |
| | | Ground based | Yes |
| | | Visual observation from one or more ground sites | Yes |
| | | Forward or side looking cameras | Yes |
| | | 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) | Yes |
| | | Instrument | Yes |
| | | Commercial | No |
| | | Air Transport | No |
| | | Unique Trained Pilot | No |
| | | Unique Trained Pilot Description | (b) (3) (A), (b) (4) |
| | | DOD certified/trained | No |
| | | Other Certified Training | No |
| | | Trained on FAR Part 91 Requirement | Yes |
| | | Medical Certification Class (FAA or DOD equivalent) | 2 |
| | | Currency Status | (b) (3) (A), (b) (4) |
| | | Duty Time Restrictions | Duty day will not exceed 8-hours per day |
| | | Single UAS Control | Yes |
| | | UAS Description | Pilot will only control one UA at a time |
| | | Total Numbers of UAS Controlled | 1 |
| | Observers | Private (Written) | Yes |
| | | Private (Certified) | Yes |
| | | Instrument | Yes |
| | | Commercial | No |
| | | Air Transport | No |
| | | Unique Trained Pilot | No |
| | | Unique Trained Pilot Description | Observers are also pilots |
| | | DOD certified/trained | No |
| | | Other Certified Training | No |
| | | Trained on FAR Part 91 Requirement | Yes |
| | | DOD Certified Training Attachment | 0 |

| | | | |
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| | | Medical Certification Class (FAA or DOD equivalent) | 2 |
| | | Currency Status | All Heron observers are also Heron pilots and have a current FAA Class II physical certificate |
| | | Duty Time Restrictions | Duty day will not exceed 8-hours per day |
| | | Single UAS Control | Yes |
| | | UAS Description | Observers will only observe one UA at a time |
| | | Total Numbers of UAS Controlled | 1 |
| Special Circumstances | | Special Circumstances | |

Flight Operations Area/Plan

| Type | User Defin Point | Loc ID | Degree | Distance | Latitude | Longitude | MSL Ceiling | MSL Floor |
|-----------|------------------|--------|--------|----------|----------|-----------|-------------|-----------|
| DEPARTURE | | | | | GTR-APT | | 0 | |

Total Map Attachment 1

| Maximum | Minimum | Radius | SUA Description | | |
|---------|--------------|--------------|-----------------|-----|--|
| 0 | 33-27-01.20N | 88-35-28.90W | 2500 | 264 | |

120

65

5.0