

|                             |                            |  |                                |   |
|-----------------------------|----------------------------|--|--------------------------------|---|
|                             |                            | ASN  | 2011-WSA-103-COA               |   |
|                             |                            | Case Status                                    | APPROVED                       |   |
|                             |                            | Date Created                                   | 08/10/2011                     |   |
|                             |                            | Date Submitted                                 | 10/07/2011                     |   |
| Proponent Organization      |                            | Sponsor  | US Army UAS Project Office     |   |
|                             |                            | Attn Of  | (b) (6)                        |   |
|                             |                            | Address  | Sparkman Center 2rd Floor      |   |
|                             |                            | Address2                                       |                                |   |
|                             |                            | City   | Redstone Arsenal               |   |
|                             |                            | State  | AL                             |   |
|                             |                            | Postal Code                                    | 35898                          |   |
|                             |                            | Telephone                                      | (256) 313-3843                 |   |
|                             |                            | Email  | (b) (6)                        |   |
| Declaration                 |                            | Declaration(a)                                 | Yes                            |   |
|                             |                            | Declaration(b)                                 | Yes                            |   |
| Point of Contact            |                            | Representative                                 | (b) (6)                        |   |
|                             |                            | Address  | SFAE-AV-UAS-AI                 |   |
|                             |                            | Address2                                       | 5300 Sparkman Circle           |   |
|                             |                            | City   | Redstone Arsenal               |   |
|                             |                            | State  | AL                             |   |
|                             |                            | Postal Code                                    | 35898                          |   |
|                             |                            | Telephone                                      | (256) 313-3843                 |   |
|                             |                            | 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      | Project Manager Unmanned Aerial Systems requests renewal for the Cochise College Hunter Certificate of Authorization.   |
|                             |                            |  | Operational Summary            | Operations are conducted at Cochise College, AZ. during daylight hours, 7 days per week. Normally, 2 flights per day, and as many as 10 flights per day. Duration is subject to conducting flight operations up to 12 hours a day, Sunrise to Sunset. |
|                             | Location                   |  | State                          | AZ  |
|                             |                            |  | County                         | Cochise   |
|                             |                            |  | Nearest Airport                | COCHISE COLLEGE   |
|                             |                            |  | AOR                            | Arizona   |
|                             | Class Of Airspace          |  | Class-A                        |   |
|                             |                            | Class-B  |                                |   |
|                             |                            | Class-C  |                                |   |
|                             |                            | Class-D  |                                |   |
|                             |                            | Class-E  | Yes                            |   |
|                             |                            | Class-G  | Yes                            |   |
| System Description          |                            | Aircraft Type                                  | 1987 - MQ-5A/B, RQ-5A - Hunter |   |
|                             |                            | 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)                       | 435                            |   |
|                             |                            | Descent Rate (feet/Minute)                     | 700                            |   |
|                             |                            | Turn Rate (Degrees/Second)                     | 8.0                            |   |
|                             | Cruise Speed               |  | Maximum                        | 110   |
|                             |                            |  | Minimum                        | 54  |
|                             |                            |  | Approach Speed                 | 60  |
|                             | Operating Attributes       |  | Maximum MSL                    | 18000   |
|                             |                            | Minimum MSL                                    | 2000                           |   |
|                             |                            | Gross Takeoff Wt                               | 1950.0                         |   |
|                             |                            | 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  | U                                |     |
|  |                      | GPS  | Yes                              |     |
|  |                      | Moving map indicator (Command Station)   | Yes                              |     |
|  |                      | Tracking capability  | Yes                              |     |
|  |                      | TCA/MCAS   | No                               |     |
|  |                      | ELT  | No                               |     |
|  | Transponder          | Transponder  | Transponder                      | Yes |
|  |                      |  | On                               | Yes |
|  |                      |  | Off                              | Yes |
|  |                      |  | Standby                          | No  |
|  |                      |  | Ident                            | Yes |
|  |                      |  | Mode S                           | No  |
|  |                      |  | Mode C                           | Yes |
|  |                      |  | Transponder Retuneable in Flight | Yes |
| Lights                                 |                      | Landing  | No                               |     |
|  |                      | Position/Navigation  | Yes                              |     |
|  |                      | Anti-collision   | Yes                              |     |
|  |                      | Infrared (IR)  | Yes                              |     |
| 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 | No                               |     |
|  |                      | NTIA/FCC Authorization Attachment  | 2                                |     |
| 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             | Yes  |                                  |     |
|  | Quantity             | 1  |                                  |     |
| Instantaneous Two-Way Voice            | Direct to pilot      | Yes  |                                  |     |

|   |                          |   |  |
|---|--------------------------|---|--|
|   |                          | SATCOM  | No   |
|   |                          | Relay via aircraft                                  | Yes  |
| Electronic Surveillance/<br>Detection<br>Capability |                          | EO/IR   | Yes  |
|   |                          | Terrain detection                                   | No   |
|   |                          | Weather/icing detection                             | No   |
|   |                          | Radar   | No   |
|   |                          | Other Attachment                                    | 0  |
|   |                          | Electronic detection systems                        | No   |
|   |                          | Electronic detection systems attachment             | 0  |
|   |                          | Radar observation                                   | Yes  |
|   |                          | NAS Operational Capability Attachment               | 0  |
| Visual Surveillance/<br>Detection<br>Capability     | Maximum Distance from UA | Vertical  | 3000 Feet  |
|   |                          | Horizontal  | 1.0 Nautical Miles   |
|   |                          | Airborne based (Chase Aircraft)                     | Yes  |
|   |                          | 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)                                   | No   |
|   |                          | Private (Certified)                                 | No   |
|   |                          | Instrument  | No   |
|   |                          | Commercial  | No   |
|   |                          | Air Transport                                       | No   |
|   |                          | Unique Trained Pilot                                | No   |
|   |                          | Unique Trained Pilot Description                    | N/A  |
|   |                          | DOD certified/trained                               | Yes  |
|   |                          | Other Certified Training                            | No   |
|   |                          | Trained on FAR Part 91 Requirement                  | Yes  |
|   |                          | Medical Certification Class (FAA or DOD equivalent) | 3  |
|   |                          | Currency Status                                     | 60 Day currency requirements consisting of one take-off, one landing/recovery, one hour of flight time and an annual check ride. |
|   |                          | Duty Time Restrictions                              | 12 hours, of which only 10 hours can be at the UAS controls/station.   |
|   |                          | 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                               | Yes  |
|   |                          | 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                                     | 60 Day currency requirements consisting of one take-off, one landing/recovery, one hour of flight time and an annual check ride. |
|   |                          | Duty Time Restrictions                              | 12 hours, of which only 10 hours can be at the UAS controls/station.   |
|   |                          | Single UAS Control                                  | Yes  |

|                       |  |                                 |  |
|-----------------------|--|---------------------------------|--|
|                       |  | UAS Description                 |  |
|                       |  | Total Numbers of UAS Controlled | 1  |
| Special Circumstances |  | Special Circumstances           | <p>Operations are from Sunrise to Sunset, Day, VFR.<br/> Medical Certification Requirements: IAW DOD Standards</p> <p>This application is a replacement for ASN: 2010-WSA-23-COA</p> <p>See attached document for Traffic Pattern Procedures-V3.<br/> See attached document for Standard Route of Flight.<br/> See attached document for defined Operational Area, supports Flight Operations Area/Plan<br/> See attached document for Flight Operations, LOP with Cochise and Ft. Huachuca. Verified that both documents are current.</p> |

Flight Operations Area/Plan

| Type             | User Defin Point | Loc ID | Degree | Distance | Latitude | Longitude | MSL Ceilin |
|------------------|------------------|--------|--------|----------|----------|-----------|------------|
| DEPARTURE        |                  |        |        |          | P03-APT  |           | 0          |
| WAYPOINT         |                  |        |        |          | P03-APT  |           | 0          |
| USER DEFINED ARE | CochiseAO        |        | 1      |          |          |           |            |
|                  |                  |        | 2      |          |          |           |            |
|                  |                  |        | 3      |          |          |           |            |
|                  |                  |        | 4      |          |          |           |            |
|                  |                  |        | 5      |          |          |           |            |
|                  |                  |        | 6      |          |          |           |            |
|                  |                  |        | 7      |          |          |           |            |

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Total Map Attachment 1

| MSL Floor | Maximum | Minimum | Radius       | SUA Description |       |
|-----------|---------|---------|--------------|-----------------|-------|
| 0         |         |         | 31-22-15.90N | 109-41-25.30W   | 17999 |
| 0         |         |         | 31-22-15.90N | 109-41-25.30W   | 17999 |
|           |         |         | 31-21-22.00N | 109-05-32.00W   | 17999 |
|           |         |         | 31-20-52.00N | 110-00-10.00W   | 17999 |
|           |         |         | 31-33-53.00N | 110-08-36.00W   | 17999 |
|           |         |         | 31-40-27.00N | 110-11-03.00W   | 17999 |
|           |         |         | 31-49-58.00N | 109-59-51.00W   | 17999 |
|           |         |         | 32-26-59.00N | 110-00-02.00W   | 17999 |
|           |         |         | 32-33-42.00N | 109-06-12.00W   | 17999 |

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