



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
US ARMY RESEARCH, DEVELOPMENT AND ENGINEERING COMMAND  
AVIATION AND MISSILE RESEARCH, DEVELOPMENT, AND ENGINEERING CENTER  
5400 FOWLER ROAD  
REDSTONE ARSENAL, ALABAMA 35898-5000

AMSRD-AMR-AE-V

22 MAY 07

MEMORANDUM FOR Head Quarters AFSOC/A3U, 210 Hartson Street, Hurlburt Field, FL 32544

SUBJECT: Airworthiness Release, Qualification Level 3, for Operation of Unmanned Aircraft System RQ-11 B (RQ-11B20070522) (TN 44895)

1. Scope: This memorandum constitutes an Airworthiness Release (AWR), Qualification Level 3, authorizing operation of the Unmanned Aircraft System (UAS) RQ-11B within the Federal Aviation Authority (FAA) approved Certificate of Authorization (COA) area near the Southern California Logistics Airport (SCLA) Victorville, CA.

2. Validity: This AWR is new and terminates upon changes in configuration of the subject equipment, upon issuance of a later AWR or 22 May 2008, whichever occurs first. Configuration is as identified by Appendix B of this AWR. This AWR is valid only for operations within the FAA approved COA area near the Southern California Logistics Airport (SCLA) Victorville, CA.

3. List of Appendices:

- Appendix A – Restrictions and Operating Information
- Appendix B - Configuration and Installation Detail
- Appendix C - Inspections, Maintenance, and Logbook Instructions
- Appendix D – Reference(s) List

(b) (6), (b) (3) 10 USC 130b (b)

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**Appendix A. Restrictions, Operating Information and approved Control Segment Configurations:**

**WARNING**

The air vehicle is susceptible to sources of electromagnetic fields. Loss of link, loss of GPS, loss of video, and loss of vehicle control can occur in proximity to emitters. Operators shall avoid high Electromagnetic Interference (EMI) areas.

**WARNING**

The RQ-11B Raven UAS does not have a sense and avoid system. Mid-air collision is a risk. All flight operations shall be conducted to ensure that manned and unmanned aircraft shall not occupy the same airspace.

**WARNING**

The RQ-11B Raven UAS has not undergone SOF Explosive Atmosphere testing. A serious fire or explosion may result if the aircraft is powered while flammable vapors are present during ground or flight operations. Do not operate the system in the presence of flammable vapors.

**WARNING**

The operator must coordinate frequencies with any other Raven operators in the area in accordance with the operator's manual. Failure to coordinate frequencies with other users could result in loss of vehicle control and possible loss of the air vehicle.

**CAUTION**

Prolonged exposure to engine noise at close proximity may contribute to hearing loss. It is recommended that ear plugs be worn while launching the air vehicle.

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1. Operate IAW the aircraft system operator's manual, local flight SOP, and the FAA approved COA, except as modified by this AWR. (see reference D-1 and D-2)
  - a. Flights outside of the FAA approved COA areas are prohibited.
  - b. Flights shall avoid other Raven transmitters by at least 200 meters. Ground control stations shall be located at least 400 meters apart.
2. Flight over populated areas should be avoided.
3. The Rally waypoint shall be inside the COA approved airspace over an approved Autoland point.
4. Emergency procedures: In accordance with the operator's manual.
5. Observers responsibility is to aid in visual air space deconfliction. Both the observer and operator shall be instructed on proper procedures, responsibilities, and voice commands for visual airspace deconfliction.
6. Commander's Corner:
  - a. The RQ-11B Raven Unmanned Aircraft System (UAS) has not completed the airworthiness qualification process. An AWR has been granted through a Level 3 Airworthiness evaluation. A Level 3 AWR establishes a minimum level of safety for UAS operations. Strict adherence to the Operator's Manual and this AWR is required to reduce the risk of loss of the aircraft, property damage and personal injury.
  - b. All flight operations should be conducted to avoid populated areas.
  - c. Coordination of channel selection with other systems operating in the area is critical to reducing accident rates.

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**Appendix B. Configuration and Installation Detail:**

1. Configuration- This aircraft is a production configuration as identified in reference D-1. Any deviation to production configuration shall be approved in writing by the Aviation Engineering Directorate (AED) for this AWR to be valid. The AED POCs are (b)

(b) (6), (b) (3) 10 USC 130b

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**Appendix C. Inspections, Maintenance, and Logbook Instructions:**

1. Conduct inspections and maintenance as specified in the maintenance manual (see reference D-1).

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**Appendix D. Reference(s):**

1. Technical Manual 1-1550-695-13&P, Operator and Field Maintenance Manual Including Repair Parts and Special tools List for Small Unmanned Aircraft System (UAS) RQ-11B, dated 9 Jan 07.
2. Standard Operating Procedure, UAS RQ-11A/B Standard Operating Procedures for Southern California Logistics Airport (SCLA), dated 8 May 2007.