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AMSRD-AMR-AE-V

AWR WASP-20080228

28 FEB 2008

MEMORANDUM FOR Project Manager, Unmanned Aircraft Systems (HQ AFSOC/A3UI),  
Hurlburt Field, FL 32544

SUBJECT: Airworthiness Release, Qualification Level 3, for Operation of the Wasp Unmanned  
Aircraft System at Stennis International Airport, Mississippi (Wasp-20080228) (TN 54392).

1. Scope: This memorandum constitutes an Airworthiness Release (AWR), Qualification Level 3, authorizing operation of the Wasp Unmanned Aircraft System for operations at Stennis International Airport, Mississippi, within the airspace defined in reference D-1. This AWR is valid only for operations within the Federal Aviation Administration (FAA) approved Certificate of Authorization (COA) area.

2. Validity: This AWR is terminated upon changes in configuration of the subject equipment, 2 years after date of issue, or upon issuance of a later Airworthiness Release, whichever occurs first. This AWR is valid only for operations within the COA airspace defined in reference D-1, at Stennis International Airport, MS.

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 - References List

4. The point of contact (POC) is:

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

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Appendix A – Restrictions and Operating Information:

**WARNING**

The air vehicle is susceptible to radiated emissions. Loss of link, loss of GPS, loss of video, and possible loss of vehicle control are likely in proximity to emitters. Operators shall avoid known high intensity Electromagnetic Interference (EMI) areas.

**WARNING**

Accidental operation of the Wasp UAS outside of approved airspace shall be immediately reported to Air Traffic Control (ATC). The operator shall make immediate actions to correct the flight path and/or follow ATC direction.

**WARNING**

The Wasp 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 maintain proper separation. Airspace deconfliction shall be accomplished using local ATC procedures and procedures identified in the FAA COA.

**WARNING**

The Wasp UAS has not completed full airworthiness qualification. All flight operations shall be conducted in a manner to minimize exposure to manned aircraft and populated ground areas.

**WARNING**

The Wasp 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.

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### WARNING

The operator must coordinate frequencies with any other UAS operators in the area In Accordance With (IAW) the operator's manual and Local Spectrum Manager procedures. Failure to coordinate frequencies with other users could result in loss of vehicle control and possible loss of the air vehicle.

### CAUTION

Noise characterization testing has not been completed on this system. 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.

1. Operate the Wasp UAS IAW reference D-2, except as modified by this AWR.
  - a. Flights shall be conducted IAW local regulations, standard operating procedures IAW reference D-1, and IAW with the FAA COA.
  - b. Flights shall avoid other Wasp and Raven transmitters by at least 200 meters. Wasp and Raven ground control stations shall be located at least 400 meters apart.
2. Flight over populated areas shall be avoided.
3. The Rally Waypoint shall be inside the COA approved airspace over a suitable Autoland point.
4. The Observer's 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.
5. Emergency procedures: The Emergency Procedures for the Wasp UAS is outlined in reference D-2 (operator's manual).
6. Commander's Corner:
  - a. The Wasp Unmanned Aircraft Systems (UAS) have not completed full airworthiness qualification. 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, local Standard Operating Procedures for UAS, and this AWR is required to reduce the risk of loss of the aircraft, property damage and personal injury.

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b. 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 details, other specific equipment, and drawings: The Wasp Unmanned Aircraft System is defined in reference D-2.
2. Special installation instructions: NONE.
3. Installation verification and quality checks: NONE.

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Appendix C – Inspections, Maintenance, and Logbook Instructions:

1. Conduct inspections and maintenance as specified in reference D-2.

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Appendix D – References:

1. “Wasp Unmanned Aircraft System Standard Operating Procedures for Stennis International Airport”, dated 29 November, 2007.
2. “Wasp Micro Aerial Vehicle Operator’s Manual v 2.2,” dated May 2006, with latest updates.
3. “Wasp II Datasheet,” dated 6 June, 2007.