



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE SPECIAL OPERATIONS COMMAND

18 Aug 08

MEMORANDUM FOR HQ AFSOC/A3OUI

FROM: A3OU

SUBJECT: Airworthiness Safety Release, Qualification Level 3, for Operation of the Wasp Unmanned Aircraft Systems (UAS) at/or near Ft. Story/Little Creek, Norfolk VA.

1. Scope: This memorandum constitutes an Airworthiness Safety Release (ASR), Qualification Level 3, authorizing operation of the Wasp UAS for operations at/or near Ft. Story/Little Creek, Norfolk VA, within the airspace defined in reference D-1. This ASR is valid only for operations specified within the approved Federal Aviation Administration (FAA) Certificate of Waiver or Authorization (COA) area.

2. Validity: This ASR is terminated upon changes in configuration of the subject equipment, 1 year(s) after date of issue, or upon issuance of a later Airworthiness Safety Release, whichever occurs first. This ASR is valid only for operations within the airspace and restrictions defined in reference D-1, at/or near Ft. Story/Little Creek, Norfolk VA.

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. Points of contacts (POC) are (b) (6), (b) (3) 10 USC 130b
(b) (6), (b) (3) 10 USC 130b

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

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

SUBJECT: Airworthiness Safety Release, Qualification Level 3, for Operation of the Wasp Unmanned Aircraft System at/or near Ft. Story/Little Creek, Norfolk VA

Appendix A - Restrictions and Operating Information

WARNING

The Wasp 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.

SUBJECT: Airworthiness Safety Release, Qualification Level 3, for Operation of the Wasp Unmanned Aircraft System at/or near Ft. Story/Little Creek, Norfolk VA

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 protection be worn while launching the UA.

1. Operate the Wasp UAS IAW reference D-2, except as modified by this ASR.
 - a. Flights shall be conducted IAW local regulations, standard operating procedures IAW reference D-1, and IAW the FAA COA.
 - b. Flights shall avoid other UAS transmitters by at least 200 meters. Other ground control stations shall be located at least 400 meters apart.
2. Flight over populated areas shall be avoided.
3. The observer's responsibility is to aid in visual airspace deconfliction. Both the observer and operator shall be instructed on proper procedures, responsibilities, and voice commands for visual airspace deconfliction.
4. Emergency procedures: The emergency procedures for the Wasp UAS are outlined in reference D-1 (operator's manual).
5. Summary highlights:
 - a. This UAS has not completed full airworthiness qualification. An ASR has been granted through a Level 3 airworthiness evaluation. A Level 3 ASR establishes a minimum level of safety for UAS operations. Strict adherence to the Operator's Manual, local Standard Operating Procedures for UAS, and this ASR is required to reduce risk loss of the aircraft, property damage and personal injury.

SUBJECT: Airworthiness Safety Release, Qualification Level 3, for Operation of the Wasp Unmanned Aircraft System at/or near Ft. Story/Little Creek, Norfolk VA

- b. Coordination of channel selection with other systems operating in the area is critical to reducing accident rates.
- c. This ASR process review was limited to the specific system configuration listed in Appendix B. Engineering assessment has been conducted primarily to ensure safety of flight in the immediate environment of all personnel involved in the flight operations of the UAS. Major air vehicle or system modifications invalidate the ASR. For the purposes of this ASR, a major modification is defined as any configuration change/alteration to an item(s) that implements a capability change and/or expanded mission/usage or would result in a hazard associated with departure of the air vehicle from the flight boundaries defined in Appendix A.
- d. This UAS has been deemed to be expendable but reusable. The probability of loss of air vehicle is accepted by the user's command. Any air vehicle loss experienced during flight operations conducted under this AWR must be reported to Higher Headquarters IAW paragraph 3-5 of USSOCOM DIRECTIVE 350-9 and the user's individual component's SOP; which can be found on the SUASMAN (<https://webapps.hurlburt.af.mil/suasmgr/default.aspx>) Web Application.
- e. Range and airspace clearance is the responsibility of the operators. Compliance with airspace coordination and de-confliction requirements identified in the FAA COA supporting these flight operations is **MANDATORY**.
- f. Procedures to establish a reasonable level of physical security for the flight operations areas prior to and during all flights must be developed and implemented during each flight to preclude inadvertent access to the area by non-authorized personnel.
- g. Determination of the requirements for operator qualification, maintainer qualification, configuration management, established flight practices, and other associated procedures is beyond the scope of this ASR, but must be addressed by an appropriate authority to ensure an acceptable level of safety for the UAS and to minimize the risk to ground personnel and property.
- h. Data collected as part of these flight operations should be made available to assist in the effort to address future airworthiness assessment of this UAS. This data includes, but is not limited to, dates of flights, flight durations, and any discrepancies noted during flights. It is the responsibility of the operator to record this data in the SUASMAN Web Application, which has been designated as the single point data repository for post flight data collection and incident reporting.

SUBJECT: Airworthiness Safety Release, Qualification Level 3, for Operation of the Wasp Unmanned Aircraft System at/or near Ft. Story/Little Creek, Norfolk VA

Appendix B – Configuration and Installation Detail

1. Configuration details, other specific equipment, and drawings:

The Wasp UAS is defined in reference D-2.

2. Special installation instructions:

None

3. Installation verification and quality checks:

None

Appendix C – Inspections, Maintenance, and Logbook Instructions

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

Appendix D – References List

1. Wasp Unmanned Aircraft System (UAS) Standard Operating Procedures for Ft. Story/Little Creek, Norfolk VA, dated 01 August 2008.
2. Wasp Micro Aerial Vehicle Operator's Manual, v 2.2, dated May 2006, with latest updates.
3. Wasp Datasheet, dated 6 June 2007.