

LETTER OF AGREEMENT
BETWEEN
DIRECTORATE OF PLANS, TRAINING MOBILIZATION AND SECURITY,
AVIATION DIVISION AND TRAINING DIVISION
FORT STEWART, GEORGIA AND
COMMANDERS
224TH MILITARY INTELLIGENCE BATTALION

EFFECTIVE:

SUBJECT: Hunter Unmanned Aerial Vehicle (UAS)

1. **Purpose:** To establish procedures for operations of Hunter UAS within Wright AAF Class D airspace and Fort Stewart Restricted Areas 3005 A-E.
2. **Scope:** The procedures herein apply to DPTMS, Aviation Division, ATC Branch; DPTMS, Training Division, Range Control; A Company, 224th MI BN (AE), Fort Stewart, GA.
3. **Responsibilities:** Parties to this Letter of Agreement shall ensure their respective personnel comply with its provisions.
4. **Scheduling/Cancellation:**
 - a. Deliberate scheduling of airspace for UAS training will be done using the Range Facility Management Support System (RFMSS) no less than 14 days prior to R-3005 flight operations. On the day of training, the UAS unit will request to occupy the airspace with the Range Control firing desk (767-8777 or FM 48.50) no less than 45 minutes prior to R-3005 flight operations.
 - b. Opportunity “scheduling” may be done by coordinating with Wright Tower and/or Marne Radio to determine what active airspace may be available. Active airspace may be used for UAS training using opportunity scheduling only if the UAS activity does not interfere with scheduled activity.
 - c. 224th MI BN will submit a request for issuance of a NOTAM to Wright AAF Base Operations NLT 24 hours prior to UAS flight operations at Wright AAF.
 - d. 224th MI BN shall file a flight plan on each UAS aircraft with Wright Airfield Operations at a minimum of 2 hours prior to flight.

5. Procedures:

a. General

- (1) Parties are required to comply with:
 - (a) Federal Aviation Regulations and Orders
 - (b) Fort Stewart ATC/Range Control SOP's
 - (c) AR 95-23
- (2) All UAS Air Vehicle operators (AVO/UAS) pilots and Mission commanders (MC) must receive an ATC briefing prior to performing flight operations at Fort Stewart.
- (3) Hunter UAS "Closed Traffic" is subject to approval by Wright Tower. UAS Operations will submit advanced notice to Range Control when planned Aircrew Training will require multiple launch and recovery operations that will enter R-3005 airspace.
- (4) Upon completion of daily operations, the using unit shall remove all equipment from the runway environment and equipment shall be stored as follows: arresting cable/net will be de-rigged, external pilot stands and recovery net will be de-rigged, and a complete foreign object and debris (FOD) walk down of the operational site will be completed. (Stations and arresting gears/drums may remain in place along the edge of the runway.) Any equipment left on the airfield which may be considered an obstruction shall be lighted with red bean bag or chemical lights.
- (5) It is the responsibility of the Mission Commander to ensure Marine Radio and Wright ATC are informed of daily completion of flight operations.
- (6) All flight communications for launch and recovery at Wright AAF Class D airspace shall be accomplished on VHF 126.250 or UHF 269.275 (or as directed by Wright ATC).

- (7) UASs shall have a fully operational mode III/C transponder. If the transponder fails in flight, and Radar cannot detect the UAS location, mission operations shall be discontinued until the failure is properly repaired and ATC has given the green light to continue flight operations. If the failure cannot be corrected in flight, the mission shall be aborted and the UAS shall return to base.
- (8) Wright ATC and Marne Radio shall be notified immediately in the event of a loss of link situation.
- (9) UAS operators shall keep Wright ATC and Marne Radio apprised of any potential or actual emergencies. Manned aircraft emergencies shall take priority over unmanned aircraft emergencies.
- (10) UAS flights shall only be conducted in visual flight rules (VFR) conditions.

b. Departures for UAS

- (1) Prior to departure the Air Vehicle Operator will ensure the UAS transponder is set to Mode III/C as assigned by Wright Tower.
- (2) Forty-five minutes prior to launch for restricted area operations the UAS Launch Shelter shall contact Range Control to activate the airspace. At this time Wright Tower/Marne Radio shall also be notified of upcoming planned flight operations. Wright Tower or Marne Radio will advise the Unit when airspace is open for UAS operations and shall issue a clearance for departure.
- (3) UASs SHALL NOT DEPART WITHOUT A CLEARANCE FROM ATC on the ATC FREQUENCY (either Wright Tower or Marne Radio if operating within R-3005.)
- (4) The Launch Shelter shall contact Wright Tower or Marne Radio on the ATC frequency immediately when airborne and proceed as directed by ATC. Direct radio communications shall be maintained at all times while in flight.
- (5) The standard UAS departure from Wright AAF shall be on departure make a turn to the north and fly direct to the Fire Tower at MR 4380 2989 (N 31° 54.234, W 81° 35.668') to Firing Point 252 located at MR 4095632601 (N 31° 56.603

W 81° 37.711) remaining west of the Small Arms Impact Area and then as directed by ATC. All departures from Wright AAF shall remain east of the Fort Stewart Cantonment Area.

c. Arrivals for TUAS

- (1) The UAS Launch Shelter shall contact Marne Radio/Wright ATC fifteen (15) minutes prior to expected arrival time. Marne Radio/Wright ATC will advise UAS AVO/Mission Commander at this time of any TFR's (temporary flying restrictions).
- (2) The standard UAS arrival into Wright AAF's Class D airspace from the R3005 will be to proceed to FP 252 and descend to 2,000 MSL direct to the Fire Tower at MR 4380 2989 then as directed by Wright ATC.
- (3) In the event of an emergency the UAS controlling shelter shall contact Marne Radio/Wright Tower immediately to advise of the situation. In a situation involving an engine failure, the most direct route to the airfield will be taken. Every precaution shall be taken to avoid over-flight of no-fly zones.
- (4) The UAS Shelter will contact Range Control upon arrival and termination of flight operations so that the airspace may be closed/de-activated.

d. Traffic pattern operations: Hunter UAS shall be limited to a maximum altitude of 1000' MSL within 1.5 KM of Wright AAF. The Hunter AVO/MC may request up to 2000' MSL for Maintenance Test Flights (MTF) subject to Tower approval.

e. Holding areas:

- (1) The following three (3) holding areas have been established for holding Hunter UAS aircraft clear of the Wright AAF traffic pattern if required for deconfliction with manned aircraft activities:

(a) Hold Point 1 North: MR 4612 2945

(b) Hold Point 2 West : MR 4561 2834

(c) Hold Point 3 East : MR 4789 2847

(2) UASs shall use FP 40 in the E-4 training area as the primary holding point within R-3005B and FP 252 is the alternate holding point within R3005C. All holding at FP 252 shall be west of the Small Arms Impact Area at 2000' MSL. If FP 40 or FP 252 may not be used due to hot areas then Marne Radio shall designate a holding point and altitude within R-3005.

f. UAS Altitudes

(1) Fort Stewart Range Control currently authorizes aircraft to operate **above 7,000' MSL** within R3005 A, B, C, E. Hunter UAS normally operates from 8,000-10,000' MSL. However, if training requirements necessitate the opportunity to fly the Hunter UAS at a lower altitude, this may be approved with coordination with ATC/Marne Radio. This lower altitude may be authorized however, the following controls will be in effect:

(a) Hunter WILL NOT fly over artillery impact area or the center of small arms gunnery ranges. Aircraft can recon roads on the fringe of small arms gunnery area as necessary.

(b) Hunter WILL NOT request to use R3005 D airspace, as this airspace affects the air traffic flow into Hunter Army Airfield and Savannah International Airport.

(c) Hunter will not descend below 3,000 FT at any time unless descending for an ATC authorized approach for landing..

g. Wright Tower shall:

(1) Upon notification of upcoming UAS flight operations, provide weather and runway in use information for Wright AAF.

(2) Sterilize the airspace at Wright AAF prior to UAS launch and notify the AVO mission commander when flight operations are authorized.

(3) Coordinate proposed UAS operations with Marne Radio and transfer communications of all aircraft requesting entry into the restricted areas to Marne Radio FM 41.3, VHF 127.35, or UHF 279.625.

- (4) Provide emergency assistance and notification for aircraft in distress as required.
- (5) NOT mix UAS aircraft and manned aircraft in the same traffic pattern at any time.

h. Marne Radio Shall:

- (1) Provide radar flight following, airspace deconfliction, and approved separation between UAS aircraft and manned aircraft operations within R3005.
 - (a) Flight following communications checks and position reports shall be conducted a minimum of every 30 minutes during UAS mission operations.
 - (b) Airspace deconfliction is defined as separation from hazardous range activities within restricted area R3005 based on known active ranges.
 - (c) Approved separation shall be 1000' vertical or 3 NM lateral between multiple UAS aircraft and 2000' vertical or 3 NM lateral between UAS and manned aircraft operations.
- (2) Coordinate arrivals with Wright Tower, hold UAS aircraft in the restricted areas as required, and transfer communications of all aircraft departing the restricted areas for landing at Wright Tower prior to UAS leaving restricted airspace.
- (3) Provide emergency assistance and notification for aircraft in distress as required.

6. Frequencies, Weather Operating Limitations, and Lost Link/Mission Abort:

For Hunter UAS: See Attachment A

7. **Miscellaneous:** Any procedures not specifically listed in this LOA may be coordinated between ATC Shift Leaders and the UAS Mission Commander to meet immediate operational requirements as long as the intent of the base letter is not changed. Any recommended additions or changes to this LOA shall be coordinated with the Installation Air Traffic & Airspace Officer.

[REDACTED]	Exemption 6	LTC, AV Commanding
DPTMS, Fort Stewart		

[REDACTED]	Exemption 6
DPTMS, Fort Stewart	

Appendix A

Hunter Unmanned Aerial Systems

Frequencies:

The following is a list of the operational frequencies that the UAS will be operating on.

<u>Channel</u>	<u>Uplink</u>	<u>Downlink</u>
1	4415(MHz)	4755(MHz)
2	4422(MHz)	4780(MHz)
4	4436(MHz)	4830(MHz)
15	4474(MHz)	4916(MHz)
16	4476(MHz)	4918(MHz)
17	4478(MHz)	4920(MHz)

Lost Link/Mission Abort:

In the event of a loss of link the aircraft operator shall advise Marne Radio/Wright ATC in plain language of the situation. The aircraft shall be programmed to proceed to FP 40 (MR3613 3569) at an altitude of 8,000' MSL with a final holding altitude of 5,000' MSL. When operating in the local pattern the aircraft shall be programmed to proceed to Grid MR4624 2947 with a final holding altitude of 2000' MSL. In the event of a mishap, Marne Radio/Wright ATC will activate standard crash procedures.

Weather Operating Limitations:

Headwind	25kts (Gusts 35kts)
Crosswind	20kts
Tailwind	3kts

Icing:

Flight into forecast/known icing is prohibited. Avoid flight into visible moisture in temperatures from 2degrees C to -5degrees C.

Turbulence:

Flight into known severe or extreme turbulence is prohibited.

Visibility: UAS VFR conditions - 1,000' / 3 miles

