# Fort Riley
# Local Flight Rules

United States Army Garrison
Airfield Manager
Fort Riley, KS
1 October 2021

**SUMMARY OF UPDATE**

FORT RILEY LOCAL FLIGHT RULES dated 1 October 2021

FR LOCAL FLIGHT RULES, dated 1 May 2020 is obsolete with this publication. This publication is operationally effective 1 October 2021. Operational changes in this Local Flight Rule from previous edition is shown with vertical line in the left margin, where applicable**.** For administrative, clerical and other changes for clarity; a vertical line is not shown.

**SUMMARY OF UPDATE**

- Updated information for filing flight plans (Section 4).
- Updated information for obtaining telephonic weather briefings (Section 4, para. 3).
- Updated refueling operations references to ATP 4-43 (Section 5).
- Updated Gray Eagle operating altitudes based on Air Worthiness Release (Section 11).
- Updated Gray Eagle lost link procedures (Section 11).

FORT RILEY LOCAL FLIGHT RULES TABLE OF CONTENTS



(cont. next page)

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**SECTION 1**
**GENERAL**

**1-1. PURPOSE.** This document establishes responsibilities and rules for safe aircrew training in R3602A/B, and in and around MAAF and the surrounding area.

**1-2. SUGGESTED IMPROVEMENTS.** The proponent for the FRLFR is the Fort Riley Garrison Commander. Send comments and suggested improvements to The Marshall Army Airfield (MAAF) Manager, ATTN: AT&A Officer, BLDG 744 Ray RD, Fort Riley, KS, 66442.

**1-3. EXPLANATION OF ABBREVIATIONS AND TERMS**. Explanations of abbreviations and terms used in this document are listed in the glossary.

**1-4. RESPONSIBILITIES**. The MAAF Manager has staff and change responsibility for this document. Changes will be sent to the Garrison Commander for review.

**1-5. APPLICABILITY**. This document applies MAAF aviation units and tenant organizations assigned or attached to Fort Riley. This document also applies to any service branch aircraft or transient aircraft conducting operations in Restricted Areas 3602A/B, MAAF and the surrounding area, and personnel utilizing MAAF facilities. All standards, policies and operating procedures established in this document will be adhered to by these aircrew members.

**1-6. DEVIATIONS.** Individuals or organizations requesting deviations from this document will coordinate with the MAAF Manager. The approval authority is the Garrison Commander, Fort Riley, KS.

**1-7. REFERENCES.** Required and related publications, prescribed and referenced forms are listed in Appendix P.

**1-8. MAAF** Facilities hours can be readily obtained from FLIP sources or calling each separate branch. (MAAF Operations, Marshall Tower, Marshall GCA, and Marshall Radio) Requests for operations of MAAF facilities outside of Normal hours will be sent to the MAAF Manager thru MAAF Operations, at least two weeks in advance of requested date. Request can be telephonic, email, or written.

**SECTION 2**
**RESOURCE MANAGEMENT**

**2-l. USE OF FORT RILEY AVIATION FACILITIES BY NON-DEPARTMENT OF DEFENSE (DOD) AIRCRAFT. AR 95-2**, Air Traffic Control, Airfield/Heliport, and Airspace Operations, exempts certain aircraft from formal requests. For aircraft not exempt by AR 95-2, requests and inquiries are addressed to The Marshall Army Airfield (MAAF) Manager ATTN: Airfield Operations Officer, BLDG 744 Ray RD, Fort Riley, KS, 66442.

**2-2. MEDEVAC SUPPORT.** This service provides expeditious evacuation of injured personnel to medical facilities by qualified personnel. Requests from units training with approval from Range Operations on Fort Riley will be made directly by contacting Range Operations. All other requests for MEDEVAC support shall be made thru Fort Riley DES by calling 911. To request this service, communicate as follows:

a. Telephone: Range Operations: 239-4200/4281

b. Radio Frequency: Range Operations: FM:40.80(P) (AIR), 36.60(A) (GROUND), 32.15(A) (GROUND)

c. Fort Riley and Children's Mercy Hospital in Kansas City are engaged in a joint effort to provide air ambulance services from IACH. Pilots should expect when these services are provided, priority handling will be given to the fixed wing aircraft and delays may be encountered to/from the runway and in the vicinity of C Ramp parking area.

**2-3. APPROVED PERMANENT LIMITED USE HELICOPTER LANDING SITES (LUHLS) LOCATED ON FORT RILEY.**

a. No landings will be made within the cantonment area at locations other than those listed in the Fort Riley Limited Use Helicopter Landing Sites (LUHLS), unless authorized by the Airfield Safety Officer (ASO), and an LZ/PZ survey has been completed by either the ASO, another qualified Aviation Safety Officer from the requesting unit, or a 'Pilot in Command' from the requesting unit. If the LZ/PZ survey is completed by the requesting unit, it must be annotated by the ASO that the survey is complete, and that the requested location is approved for helicopter landings. The master LUHLS may be obtained by contacting MAAF Operations or the ASO. This requirement does not pertain to operations in tactical training areas.

b. Each non-permanent site within the cantonment area, approved by the ASO must be inspected from the ground prior to each use to ensure that no hazards have been introduced since the last use. Organizations with a desire to have additional sites approved for inclusion in the list may request approval from the ASO and Public Works (PW) for inclusion on the environmental overlay of the master plan. The sites are inspected semi-annually and are included in the environmental overlays of the Fort Riley Master Plan. Helipad use should be coordinated with the owning agency or the MAAF Operations. Lighting is available on some of the helipads. Coordination with the owning unit must be made 30 minutes prior to ETA forse of lighting.

**SECTION 3**
**AIRSPACE**

**3-1. DESCRIPTION.** For regulatory purposes, airspace management procedures are divided between Local Flying Area, MAAF, and the Fort Riley Reservation (Tactical Training Areas).

**3-2. LOCAL FLYING AREA.**

a. The local flying area is designated as follows: The area encompassing a 280 nautical mile radius from MAAF. (Appendix A).

b. A map depicting the boundaries of the Fort Riley local flying areas will be posted in MAAF Operations.

**3-3. MARSHALL ARMY AIRFIELD (MAAF)** (Appendix B and D). MAAF Traffic Pattern (Appendix B), North & South traffic: fixed wing- 2600 feet MSL (South Traffic only due to overflight of Main Post), helicopter- 1800 feet MSL, and base leg as appropriate for the approach being flown. Rotary wing traffic patterns will be flown 1 NM from centerline, F/W traffic patterns will be flown 2 NM from runway centerline. Gray Eagle UAS Traffic Pattern (Appendix N), south traffic only -2000 feet MSL. All aircraft operating to, from, thru, on, or in the vicinity of MAAF will utilize Tower/CTAF VHF 126.2 as the primary frequency, UHF 248.65 alternate.

a. The following procedures shall be used during simultaneous manned and unmanned operations on MAAF:

(1) UAS pilots cannot be instructed to follow another aircraft.

(2) UAS aircraft are not authorized the use of visual separation.

(3) The use of sequencing as indicated in FAA Order JO 7110.65, Chapter 3, Section 8 is authorized with the exception of issuing instruction for UAS to follow another aircraft or to maintain visual separation.

(4) Cautionary wake turbulence advisories, the position, altitude and direction of flight will be given to all UAS pilot/operator landing behind all manned aircraft. Wake turbulence rules cannot be waived by the UAS.

(5) Air Traffic Control will treat UAS as Category III aircraft for runway separation.

(6) To the maximum extent possible manned aircraft will be instructed to fly north traffic when UAS' are utilizing the south traffic pattern.

b. Designated emergency procedure training areas are MAAF (KFRI) & R3602A/B.

(1) Simulated emergency procedures and maneuvers are authorized to any authorized landing area at MAAF (KFRI).

c. MAAF Operations will have a diagram posted depicting traffic patterns at MAAF. (see Appendix B)

d. Panel 1 is closed for take-off and landing. X- Ray Sod is closed to hover work and take-off and landing. Air taxiing across X-Ray Sod is permitted. (see Appendix D)

e. The area 500 feet either side of the extend runway centerline is closed to slope operations and hover work. (see Appendix D)

**3-4. FORT RILEY AERIAL TRAINING AREA**. A current Fort Riley Aviation Special Military Installation Map (MIM) (1:50,000 map) will be posted in MAAF Operations depicting all known hazards in the area of coverage. Also displayed are the Air Route Structure (ARS), Air Coordination Points (ACPs), Nap-of-the Earth (NOE) areas, Restricted Operating Zones (ROZ), and VFR/S-VFR ACPs. All flights on the Fort Riley reservation and Fort Riley aerial training area will use the most current copy of the Fort Riley Aviation ITAM (1:50,000) Map.

a. An operational UHF or VHF and FM radio is required to operate in the Fort Riley Aerial Training Area. The aerial training area coexists above all tactical training areas on the FR reservation.

**3-5. AIR ROUTE STRUCTURE (ARS).** All routes are from centerline (or road when applicable) to 250 meters left or right, rules of road apply, except that portion of Blue Route- from ACP Blue 5 to Blue 6, where clockwise traffic is directly over Mallon road, and counterclockwise traffic is 500 meters east of the road. Aircrews are cautioned of unlit obstructions in the vicinity of ACP Blue 5.

a. Blue route is the ARS that is used to facilitate administrative movement around R3602 A/B. It is comprised of ACPs Blue 1 through Blue 6 and allows both clockwise (2300 feet MSL) and counterclockwise (1800 MSL) movement.

(1) Listed below is the air route structure ACPs that comprise the "Blue" ARS:

| ACP | GRID | DESCRIPTION |
|---|---|---|
| Blue 1 | PJ 845266 | ROAD AND BRIDGE INTERSECTION |
| Blue 2 | PJ 813382 | ROAD INTERSECTION TO TOWN OF MILFORD |
| Blue 3 | PJ 783526 | 90 DEGREE TURN IN ROAD |
| Blue 4 | PJ 871512 | ROAD INTERSECTION TO TOWN OF RILEY |
| Blue 5 | PJ 973432 | ROAD INTERSECTION TO TOWN OF KEATS |
| Blue 6 | PJ 971337 | ROAD INTERSECTION 2 KMs NNW OF OGDEN |

*Note: Aircrews are reminded that portions of routing and some portions of Installation property are in Manhattan Class D/E Airspace. Communication requirements as stated in Federal Aviation Regulations apply. Affected Training Areas are 25 thru 30.*

b. Red route is the ARS that is used to facilitate administrative/safe movement around artillery if fire is conducted east of blue route on the eastern side of R3602. When Red route is active, Range information Service (RIS) will indicate, "Red route in effect".

(1) It is comprised of ACPs Red 1 through Red 4 and allows both clockwise (2300 feet MSL) and counterclockwise (1800 MSL) movement. Aircraft should ensure they remain

on the right side of the air route structure. Rules of the road apply, when able.

(2) Listed below are the air route structure ACPs that comprise the "Red" ARS:

| ACP | GRID | DESCRIPTION |
|---|---|---|
| FROM | (Leaves Blue Route at Red 1) | |
| Red 1 | PJ 973366 | VALLEY/DRAW |
| Red 2 | QJ 002392 | HILLTOP |
| Red 3 | QJ 001418 | CREEK |
| Red 4 | PJ 986419 | HILLTOP |
| TO- | (Joins Blue Route at BLUE 5) | |

c. Green route is the ARS that is used to facilitate administrative/safe movement around helicopter running fire engagements at the MPRC or DMPRC. When Green route is active, Range information Service (RIS) will indicate, "Green route in effect".

(1) It is comprised of ACPs Green 1 through Green 3, Blue 4 and its start point, and allows both clockwise (2300 feet MSL) and counterclockwise (1800 MSL) movement.

(2) Aircraft should ensure they remain on the right side of the air route structure. Rules of the road apply, when able.

(3) When Green Route is active, aircrews maintain communications with Marshall Radio when departing Blue Route and proceeding via Green Route.

(4) Listed below are the air route structure ACPs that comprise the "Green" ARS:

| ACP | GRID | DESCRIPTION |
|---|---|---|
| FROM | (Leaves Blue Route at PJ 812394 ) | |
| Green 1 | PJ 742431 | BRIDGE |
| Green 2 | PJ 741576 | INTERSECTION |
| Green 3 | PJ 821578 | INTERSECTION |
| TO- | (Joins Blue Route at BLUE 4) | |

**3-6. VISUAL FLIGHT RULES (VFR) ARRIVAL AND DEPARTURE CHECKPOINTS** (Appendix C).

a. The following checkpoints are designated for arrival or departure from MAAF during VMC flight:

| CHECKPOINT | GRID |
|---|---|
| ACP Blue 1 | PJ 845266 |
| CP Twin Bridges (TB) | PJ 901256 |
| CP Trooper Gate (TG) | PJ 879253 |
| CP Twin Tanks (TT) | PJ 936291 |
| CP Funston (FU) | PJ 959288 |
| CP US 77/I-70 (II) | PJ 855185 |

**3-7. VFR ROUTES** The following routes are designated for arrival or departure from MAAF

during VMC flight. Aircraft are required to follow rules of the road on two way traffic routes, unless ATC requires other.

a. Outbound routes:

(1) Blue 1 Route. Helicopters will depart MAAF direct to CP Twin Bridges, then direct to ACP Blue 1. Aircraft will attain 2300 feet MSL NLT Twin Bridges.
(2) CP Funston Route: Helicopters will depart MAAF and proceed direct to CP Funston. If enroute to R3602A/B, aircraft will then proceed direct to ACP Blue 6. Aircraft will attain 1800 MSL NLT Funston.

b. Inbound routes:

(1) Blue 1 Route: Arrivals shall proceed from ACP Blue 1, direct to CP Trooper Gate (TG) and then proceed direct to MAAF. Aircraft will attain 1800 feet MSL NLT ACP Blue 1.
(2) Twin Tanks Route: Helicopters will depart Twin Tanks and then proceed direct to MAAF. Aircraft will attain 1800 feet MSL NLT Twin Tanks.
(3) CP 77 Route: Aircraft will arrive at CP US 77/I-70 at 1800 feet MSL, follow along I-70 east, direct to MAAF traffic pattern.

c. Marshall Tower shall, in coordination with Marshall GCA, separate S-VFR aircraft arrivals and departures by holding aircraft clear of Class D airspace until the required separation can be provided.

d. When transitioning outbound from CP Funston, pilots will contact Manhattan ATCT for clearance through their Class D surface area.

**3-8. NOE AREAS.**

a. Training areas are grouped to form larger NOE areas that accommodate unit training requirements.

(1) NOE 1: Defined by training areas (TA) 63, 64, 65, 75, 76, 79, 80, 81, 82, and 85.
(2) NOE 2A: Defined by TA 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 66, 67, 68, 69, 70, 71, 72, 73, 74, 77, 78, 83, 84, 86, and 87.
(3) NOE 2B: Defined by TA 47, 48, 49, 50, 51, and 52.
(4) NOE 3A: Defined by TA 40, 41, 42, 43, 44, 45, 46, 88, 89, 90, 93, 94, 95, 96, 97, 98, 99, and 100.
(5) NOE 3B: Defined by TA 3, 15, 16, 17, 20, 21, 22, 23, 24, 34, 35, 36, 37, 38, and 39.
(6) NOE 4A: Defined by TA 25, 26, 27, 28, 29, 30, 31, 32, 33, 91, and 92.
(7) NOE 4B: Defined by TA 5, 6, 7, 8, 9, 10, 11, 12, 13, and 14.

*Note: Aircrews are reminded that portions of NOE 4A are in Manhattan Class D/E Airspace. Communication requirements as stated in Federal Aviation Regulations apply. Affected Training Areas (TAs) are 25 thru 30.*

**3-9. SCHEDULING OF AIRSPACE.**

a. Aviation units requesting to reserve the use of certain NOE training areas (Sole Use) for collective training or blackout out operations may reserve them with Range operations at least 2

weeks in advance.

b. Units will submit requests with the following information:
(1) Unit.
(2) Date requested for training to begin and end.
(3) Time training will start and finish.
(4) Unit being supported (if applicable).

**3-10. BLACKOUT OPERATIONS.** When requesting "black-out" operations in R3602A/B, units will coordinate with the Range operations in advance for approval. At no time will blackout operations be approved within four nautical miles of Manhattan Airport or above 500 feet AGL (IAW FAA granted exemption). Blackout operations in R3602A/B will only be conducted within the tactical training areas (examples-not over main post areas, not in tactical training areas 25, 26, 28, and portions of 27, 29 and 30). When requesting "black-out" operations outside of R3602A/B, units will require application & coordination of FAA Exemption 9835. Units may contact the AT&A Officer for the most current FAA Exemption and for coordination of procedures and requirements.

**3-11. RANGES AND UAS ROZ STATUS.** Range Information Format (General). Aircrew members operating in R-3602A/B will receive range information from the Range Information Service (RIS) on VHF 123.75, thru Marshall Radio when changes occur, and from Range operations when the Marshall Radio is not operational. When Marshall Radio and Range operations are not operational, Restricted Area R3602 A/B is inactive and RIS information will not be broadcast.

**3-12. VISITING AIRCREW BRIEFING REQUIREMENTS.**

a. Responsibilities:
(1) MAAF Operations briefs safety hazards and coordinates local flying rules briefings for non-tenant units.
(2) MAAF Operations personnel or designated representative briefs flight planning and filing procedures, and flight advisory procedures.

b. General: At a minimum, a comprehensive Local Area Orientation (LAO) briefing shall be completed. If the briefing is for a unit (BN, Co, Section, DET, etc.) one person may be briefed. That person is responsible for briefing his unit. A current brief will have been conducted within the preceding 180 days. For a current copy of the briefing contact the Air Traffic and Airspace Officer.

**SECTION 4**
**FLIGHT PROCEDURES AND RULES**

**4-1. FLIGHT PLANS.** All flight plans (IFR, VFR -Cross Country, VFR-Local, Field/MPRC Gunnery Flight Plan, and Maintenance Test Flight Plans) will be filed IAW the General Planning (GP), FLIP, and this publication. All aircraft departing MAAF & Fort Riley Installation will file an approved flight plan (DD Form 1801/1801-C) when MAAF Operations is open (exception is listed in paragraph 4-1e –Maintenance Test Flight Plan). All flight plans (paragraph 4-1a thru d) are filed (in person, via email, or via fax) with MAAF Operations. Instructions for emailing flight plans are located in Appendix O. Flight Plans specified in 4-1a & b below require MAAF Operations coordination with external agencies; Flight Service, FAA Air Route Centers, or other military airfields. Flight Plans specified in 4-1c, d & e below are flight plans in which data remains at MAAF Operations (remains local). Pilots are encouraged to contact MAAF Operations if unclear on which flight plan is best suited for their particular mission (785-239-2530). When MAAF Operations is not open, aircrews use FAA Form 7233-1 and file with FAA Flight Service by calling 1-800-WX-Brief (992-7433) or other means; software/applications etc.

a. When aircraft depart MAAF and are scheduled to return to MAAF when MAAF Operations is not open, flight plans are forwarded to FSS and pilots are required to close with FSS upon termination.

b. A telephone number where a pilot in command/pilot can be reached is required in "other information" as a remark in DD Form 1801/1801-C (item 18).

c. IFR and VFR Cross country flights: Pilots are required to file flight plans with MAAF Operations a minimum of one (1) hour prior to departure time.

d. IFR Flight Plans. IFR Flight Plans will be filed IAW the GP and applicable FLIP. A Military Flight Plan (DD Form 1801/1801-C) and a Flight Weather Briefing (DD Form 175-1) are required for IFR flight.

e. VFR – Cross Country Flight Plans. VFR Cross Country flights be filed IAW the GP and applicable FLIP and require input into the Aeronautical Information System Replacement (AISR) by MAAF Operations personnel. A Military Flight Plan (DD Form 1801/1801-C) with a Flight Weather Briefing (DD Form 175-1) is required for a VFR – Cross Country flight. VFR- Cross Country flight plans will be used for:

(1) All flights departing MAAF involving main engine(s) shutdown at another airfield/airport or any landing site off Installation property.
(2) Flights into other military airfields.
(3) Flights departing the local flying area as described in paragraph 3-2.

*Note: Pilots are required to comply with procedures outlined in the Aeronautical Information Manual (AIM), Chapter 5, for opening and closing/canceling VFR/SVFR and IFR flight plans.*

f. VFR – Cross Country Flight Plans. VFR Cross Country flights be filed IAW the GP and applicable FLIP and require input into the Aeronautical Information System Replacement (AISR) by MAAF Operations personnel. A Military Flight Plan (DD Form 1801/1801-C) with a Flight

Weather Briefing (DD Form 175-1) is required for a VFR – Cross Country flight. VFR- Cross Country flight plans will be used for:

(1) All flights departing MAAF involving main engine(s) shutdown at another airfield/airport or any landing site off Installation property.
(2) Flights into other military airfields.
(3) Flights departing the local flying area as described in paragraph 3-2.

*Note: Pilots are required to comply with procedures outlined in the Aeronautical Information Manual (AIM), Chapter 5, for opening and closing/canceling VFR/SVFR and IFR flight plans.*

g. Field/Gunnery Flight Plan. A DD Form 1801/1801-C designated as "Field / Gunnery Flight Plan" is used to facilitate Field Training Exercises (FTX's) or individual / unit level gunneries. The intent of the Field / Gunnery Flight Plan is to transfer responsibility of flight operations functions, (overdue aircraft), from MAAF Operations to the owning unit flight operations upon arrival at field site. The PC reports arrival at field site as stated below in paragraph 6, and the DD Form 1801/1801-CField/Gunnery flight plan is terminated with MAAF Operations. Continued flight operations following this termination is the responsibility of the owning unit operations at field site (unit operations log). A DD Form 1801/1801-C designated as "Field /Gunnery Flight Plan" is used for flights that meet the following criteria:

(1) The PC or unit Operations delivers the DD Form 1801/1801-C in person, via email, or via fax to MAAF Operations prior to the aircrafts departure.
(2) More than one aircraft will not operate on the same DD Form 1801/1801-C "Field/Gunnery Flight Plan".
(3) An "L" will be place in Item 8 of DD Form 1801/1801-C and "(FTX/Gunnery)" will the first item in the route of flight.
(4) In Destination Aerodrome on Item #16 input "(TO)" in the first two spaces. In item #18 Other Information, place the terminating field site in Military Grid Reference System coordinates (MGRS- 6 digit) (e.g. "PJ 823 510").
(5) The Date of Return (DOR) to MAAF (expected completion of field exercise or gunnery) will be entered in the format DD MMM YY. (e.g. "DOR: 17 APR 20")
(6) The PC will close the Field/Gunnery Flight Plan DD Form 1801/1801-C upon arrival and termination at the field location. Closing of flight plans may be accomplished telephonically with MAAF Operations (785-239-2530), via radio with MAAF Operations, or relayed thru Marshall Radio (VHF 118.375 Primary/ UHF 247.0 Alternate). Failure to close this portion of the flight plan may result in initiation of overdue aircraft procedures by MAAF Operations.
(7) Anytime an aircraft returns to MAAF operating on a unit operations log, on initial contact the aircrew will inform Marshall Tower (when open) they are operating on a "unit operations log".
(8) Upon completion of the FTX/Gunnery (final return to MAAF) the PC will terminate internally with the owning unit flight operations.

h. Maintenance Test Flight Plans. Flight plans for maintenance test flights are filed with MAAF Operations either over the radio (VHF 139.9) or telephonically (239-2530/2575). The following procedures will apply:

(1) Tenant and visiting units will provide MAAF Operations section with a list of current MTPs. MTPs must be on the existing document to file maintenance flight plans.
(2) MAAF traffic pattern and the approved Test Flight Areas are the only authorized test flight areas.
(3) The MTP/PC will give operations his call sign, tail number, type aircraft, ETD, ETE, destination, unit, name, fuel, and number of personnel on board.
(4) Flight plan will be opened through MAAF Operations by the MTP/PC.

**4-2. MULTI-SHIP FLIGHT PLANS**. Multi-ship flight plans will be filed IAW the GP and applicable FLIP. Multi-ship flight plans will only be used for VFR Cross Country Plans (paragraph 4-1b) and VFR- Local Flight Plans (paragraph 4-1c). Aircraft departing as a flight (on one flight plan) must return as a flight (exception is precautionary landings). Any aircraft intending to separate from the multi-ship flight must file a separate flight plan.

**4-3. WEATHER**.

a. All aviators can obtain a flight weather brief by calling the Fort Riley Weather Flight at 239-6562 (DSN 856-6562). Depending on workload requirements, the duty forecaster may transfer transient briefing request to the 26th Operational Weather Squadron located at Barksdale AFB, LA. To avoid delays, a minimum of two hours' notice is highly encouraged for all DD 175-1 requests.

b. If the Fort Riley duty forecaster is not available, the 26 OWS briefing cell can be reached 24/7 at: DSN- 781-4775, COMM- (318) 456-4775, and Toll Free- 866-223-9328.

**4-4. SPECIAL VFR PROCEDURES AT MAAF (S-VFR).** When weather conditions at MAAF are less than 1,000 foot ceiling or 3 NM visibility, authority to operate an aircraft S-VFR within MAAF's Class D airspace will be issued by Marshall GCA via Marshall Tower during normal duty hours, Kansas City Center when Marshall GCA is not operational. Special VFR weather at MAAF is IAW AR 95-1. (AR 95-1 helicopter minima is 1/2 mile visibility and clear of cloud).

**4-5. MARSHALL GCA SERVICES.** Marshall GCA will provide approach control services to VFR aircraft making practice approaches to the following airports: MAAF (FRI), Manhattan Regional (MHK), Junction City/Freeman Field (3JC), and Clay Center (CYW). IFR separation will be provided between VFR aircraft practicing instrument approaches and IFR aircraft.

a. During UAS launch and recovery procedures inside Area 1 as depicted in Appendix L. IFR separation will not be provided at Marshall Army Airfield (FRI), and Junction City/Freeman Field (3JC) until the UAS is reported clear of Area 1. Aircraft conducting the VFR practice approach will continue to receive sequencing and traffic advisories. IFR arrivals and departures at MHK will be cleared on an approved instrument approach procedure or Standard Instrument Departure (SID) until approved standard separation can be provided.

**4-6. FLIGHT FOLLOWING PROCEDURES.** Marshall Radio (VHF 118.375 Primary / UHF 247.0 Alternate) provides flight following to aircraft operating within the Fort Riley reservation and the tactical training areas. Marshall Radio is operational whenever Marshall GCA is open.

a. Aircraft will, at a minimum, report to Marshall Radio upon:
(1) Initiating/terminating flight following services. On initial call up, pilots will provide:
Aircraft identification/type.
Location.
Intended Route.
Destination
(2) Shutting down aircraft within R3602A/B.
(3) Every 15 minutes or as requested by Marshall Radio.
(4) Entering/exiting the Blue, Red or Green Route.
(5) Arriving/departing NOE areas.
(6) When weather drops below 1,000 feet ceiling and/or 3 miles visibility, aircraft will report all ACPs.

b. Marshall Radio will advise aircraft of other known aircraft in the vicinity of the ARS, and in the pertinent NOE areas.

c. In the event Marshall Radio is closed, aircraft utilizing the Fort Riley reservation and the tactical training areas will continue to utilize 118.375 to announce all movement and intentions, and monitor Range Operations on 40.80 to receive updated range information.

d. Updated range information will be obtained from Marshall Radio prior to entering R3602 A/B. The Marshall Radio and Range Operations frequencies will be continuously monitored until clear of the restricted area. Marshall Radio will disseminate real-time updates of range data, selected Local NOTAMS and any other information pertinent to flight safety by Range Information Service (RIS) broadcasts (see g below) and radio net calls.

e. Prior to crossing the 39 grid line when south bound on the Blue Route, or occupying TAs 25 through 30, contact will be made with Manhattan Tower for transition through or operations in their Class D Surface Area. Contact will still be maintained with Marshall Radio.

*<u>Note:</u> Flight between ACP Blue 1 and CP Twin Bridges/Trooper Gate are in close proximity to Freeman Field (3JC) in Junction City. Flights commonly depart 3JC runway 36 or runway 5 directly to FRI Class D. Monitoring of UNICOM 122.8 is suggested as communication changes between FRI and R3602 or 3JC traffic may not occur in time for traffic services.*

f. In certain geographic areas of the training area, aircrews may experience momentary lapses in communication with Marshall Radio. Aircrews are requested to document their location, time, and altitude when contact is momentarily lost. Aircrews are requested to report this information upon landing to MAAF Operation. This will aid radio technicians in future placement, and size of repeating transmitter locations.

g. Range Information System (RIS) – This system is a recording made with updated range information and pertinent NOTAMS/Advisories and broadcast on 123.75. This service is very similar to ATIS broadcast for the terminal area. The information set will be identified by a phonetic alphabet character. Aircrews responding with the appropriate information identifier will not have to receive the brief again from Marshall Radio.

h. Aircraft operating on active ranges will remain in contact with Range Officer in Charge (OIC). The Range OIC must maintain communication with Range operations. Aircraft will terminate flight following with Marshall Radio once in contact with the Range tower or OIC.

i. Fixed Wing aircraft conducting paradrops at Timber Creek DZ will be in contact with Range operations. Range operations will keep Marshall Radio informed of paradrop operations.

j. Close Air Support aircraft will be in contact with the Forward Air Controller (FAC). The FAC will be in contact with Range operations and Range operations will keep Marshall Radio informed of CAS operations.

**4-7. TRANSPONDER CODE**. Transponder code within the restricted area is assigned by Marshall Radio. Squawk 4000 when Marshall Radio is not operational.

**4-8. ALTITUDES**

a. Aircraft departing MAAF and entering the air route structure:
(1) Aircraft will climb to 2300 feet Mean Sea Level (MSL) prior to Twin Bridges (TB).
(2) Aircraft will climb to 1800 feet MSL prior to CP Funston (FU).

b. Aircraft arriving from the air route structure will descend to the traffic pattern altitude prior to CP Twin Tanks (TT) or CP Trooper Gate (TG) inbound.

c. Clockwise travel on Blue/Green/Red Route will be at 2300 feet MSL.

d. Counterclockwise travel on Blue/Green/Red Route 1800 feet MSL.

e. Aircraft transitioning over a NOE area will do so at or above 500 Above Ground Level (AGL). This facilitates point-to-point movement from one location to another. Emergency medical evacuation will have priority over all other missions.

**4-9. ALTITUDE RESTRICTIONS.**

a. Off Post: Minimum altitude off post is 500 feet AGL except in the following instances:
(1) To comply with ATC clearance.
(2) To maintain VFR due to weather conditions.
(3) To meet specific mission requirements, i.e., search and rescue, etc.
(4) Takeoffs and landings to approved landing areas.
(5) Emergencies.
(6) To meet specific, briefed mission/task training requirements off-post (i.e., goggle flights on low level routes), minimum altitude is 100 feet AGL, maintaining a minimum slant range distance of 500 feet from any person, building, animal or manmade structure).

b. On Post:
(1) No over flights of Main Post, Irwin Army Community Hospital, troop housing, or family housing below 1500 feet AGL (exception: published routing to and from MAAF), except for landings, takeoffs, and VIP (if approved by the unit commander who will coordinate with the 1st ID, G3). Landings may be conducted only in approved landing

areas inside the cantonment area, either as depicted in the Fort Riley LUHLS Handbook, or approved IAW paragraph 2-3b of these procedures.
(2) No over flights during scheduled ceremonies. Crews will abide by published NOTAMs and information provided by MAAF Operations.
(3) No over flight of the Multi-Purpose Range Complex (MPRC) box below 200 feet AGL without prior coordination with Range operations.
(4) No over flight of any training area within an active range safety fan (see FR REG 385-12, Range and Training Safety) unless Range operations grants permission.
(5) No overflight of the artillery, mortar and small arms impact area (as defined by Appendix K), regardless of Impact area status, unless approved by Range operations, or (for aircraft conducting live fire in these areas) communications is established with the appropriate Range controlling authority (i.e. Range 18 tower)
(6) Aircraft will maintain a minimum of 500 feet AGL over bodies of water (reference FAR 91.119, Federal Aviation Regulation) or operate at an altitude that will allow safe autorotation to the shoreline by single engine aircraft. If unable to do so, aircraft, crew, and passengers will be equipped per AR 95-1.
(7) Manned aircraft will comply with the vertical and lateral limits of UAS activity as required by paragraphs 4-12d3a and 11-3e.

**4-10. AIRCRAFT LIGHTING REQUIREMENTS**. Within R3602A/B and MAAF.

a. Anti-collision lights will be on at all times when engines are running, except for the following:
(1) Formation flights flying at 5 rotor disks or less may have all anti-collision lights out except trail aircraft.
(2) Within the Fort Riley tactical training area at or below 500 feet AGL.
(3) When operation of anti-collision light will adversely affect aircraft safety (near visible moisture, dust. etc.).
(4) Operating blackout IAW paragraph 3-10.
(5) During Refueling Operations.

b. Position lights will be on bright between official sunset and sunrise IAW AR 95-1, paragraph 2-12c. Position lights may be set to off between official sunset and sunrise when operating IAW the provisions of para 3-10.

**4-11. AIRCRAFT DENSITY IN THE NOE AREAS.** Aircraft densities in the NOE Areas are designed to maintain aircraft separation while giving pilots the ability to conduct required training. Units may contact Range Operations to schedule sole use of NOE areas for training requirements that exceed maximum densities. Aircraft that are landed in a Tactical Assembly Area (TAA) are exempt from the maximum day/night density in the individual NOE areas.

a. A maximum of four (4) single-ship aircraft during daytime, are authorized within each NOE area. When multi-ship aircraft (formation flights) are operating in an NOE area, no more than six (6) total aircraft are authorized.

b. A maximum of three (3) single-ship aircraft during nighttime (SS-SR), are authorized within each NOE area. When multi-ship aircraft (formation flights) are operating in an NOE area, no more than five (5) total aircraft are authorized.

c. Aircrews requesting to utilize a NOE training area that is reserved or occupied must first request and receive authorization from the owning unit.

d. Aircrews desiring to utilize a training area that is reserved or occupied must first establish contact and receive permission from the user aircraft.

e. Aircrews will utilize NOE frequencies for internal communications when both Marshall Radio and Range operations are not operational.

f. R3602A/B & MTF area air-to-air discreet frequencies: Aircraft operating within the same NOE Areas will coordinate training space with each other on this frequency. Aircraft will make calls in the blind and establish communication with other aircraft operating in the NOE area.

(1) FM 76.875- NOE Area 1
(2) FM 82.875- NOE Areas 2A/2B & MTF A
(3) FM 84.875- NOE Areas 3A/3B & MTF B
(4) FM 86.875- NOE Areas 4A/4B

g. Aircraft operating as a flight are considered one aircraft.

h. Aircraft that are landed in a Tactical Assembly Area (TAA) are exempt from the maximum day/night density in the individual NOE areas.

i. Maximum density rules do not apply during sole-use training events for participating aircraft.

**4-12. UAS OPERATIONS.** For the purpose of this document the term Unmanned Aerial System (UAS) applies to any and all remotely controlled aircraft. A Tactical Unmanned Aerial System (TUAS) is an aircraft capable of flight beyond visual line of sight under remote or autonomous control, primarily operated above 1,000 feet AGL. (Shadow type systems). A small unmanned aerial system (SUAS) is an aircraft that is primarily operated below 1,000 feet AGL, under remote or autonomous control. (Raven/Puma type systems). Gray Eagle Flight Operations are cited in SECTION 11.

a. UAS Operations General.

(1) All UAS systems must comply with the Limited Use Areas of R3602. No small Raven Type UAS' shall operate in Area 1 or 2 as depicted in Appendix L. Shadow flight in Area 1 is restricted to take off and landing only with clearance from Marshall Radio. Shadow systems will depart Area 1 as expeditiously as possible following take-off and remain clear until immediately prior to landing. The requirements of these areas exist to properly separate manned and unmanned systems as required by FAA Joint Order. The proximity of airfields to the south and eastern boundary have numerous manned flight operations. Marshall Air Traffic Control shall properly sequence UAS systems and manned aircraft in these areas.

(2) UAS Operators are responsible for ensuring UAS operations comply with the procedures in AR 95-1, any applicable FAA certificates of authorization, and this document.

(3) Operators will schedule ground training areas and airspace through Range operations

IAW current scheduling procedures.
(4) A local NOTAM will be published for all UAS flights in R3602A/B.
(5) Operators will ensure the UAS maintains VFR requirements at all times. Raven type systems must remain clear of clouds.
(6) All UAS operators are required to review NOTAMS prior to flight. NOTAMS are reviewed at https://www.notams.jcs.mil/ using "KFRI" as an airport identifier, and clicking "View NOTAMs" to receive necessary data.
(7) All UAS operations are conducted in R3602A/B restricted airspaces. For operations outside of restricted airspace operators must possess a Certificate of Authorization (COA) from the FAA. Contact the installation AT&A Officer, for a current list of COAs prior to conducting operations outside of restricted airspace.
(8) Communications must exist between all UAS operators and Range operations (SUAS Operations) and Marshall Radio (TUAS Operations) for the entire duration of flight. For SUAS, if radio communications are lost, contact Range operations at 785-239-4200 immediately.
(9) Operations will terminate if unauthorized manned or unmanned aircraft enter the UAS flight area or ROZ.
(10) Standardized LAO Briefings are required for tenant and non-tenant UAS units. SUAS activities contact the Air Traffic and Airspace Officer. TUAS activities contact Range Support.

b. Limitations for TUAS operations (Shadow type systems).
(1) Shadow may operate in Limited Use Areas of R3602- Area 2 (see Appendix L) at altitudes above 5,000 feet MSL.
(2) All TUAS (if equipped) must have an operational transponder with modes 3A and C.
(3) Operations outside of R3602A/B will require a certificate of authorization (COA) with the FAA.
(4) TUAS must be lighted for night operations.
(5) Marshall Air Traffic Control must be operational during all Shadow flight operations. Requests to operate Shadow outside of normal ATC hours is coordinated through 1st ID, G3 Air, email: usarmy.riley.1-id.list.g3-air@mail.mil or telephone: 785-240-6312, two (2) weeks in advance of anticipated flight date.
(5) Prior to requesting clearance to launch, receive Range Information Service (RIS) brief by monitoring VHF 123.75.
(6) The Shadow TUAS will climb to mission altitude as quickly as possible and not descend without approval from Marshall Radio.
(7) Shadow TUAS will comply with Paragraph 11-3b.
(8) The Shadow TUAS lost link point is PJ 849 362 in TA 48. Upon notification of lost link, Range operations will attempt to remove personnel from TA 48.

c. Communication procedures for TUAS.
(1) Coordinate with Marshall Radio on frequency (VHF118.375 Primary / UHF 247.0 Alternate) thirty (30) minutes prior to intended launch. Operator will provide mission altitude and receive transponder code from Marshall Radio.
(2) Failure to establish and maintain radio communications between TUAS operators and ATC will require termination of UAS operations.
(3) Each TUAS unit is required to have alternate communications prior to flight.
( a ) Telephonic communications may be used, but must be on file with Marshall

Radio.
(b) Telephonic contact information must be provided to Range Operations.
(4) TUAS operators will notify Marshall Radio with the following if a lost link occurs:
(a) Time of lost link
(b) Last known position
(c) Altitude
(d) Direction of flight
(e) Conformation of lost link procedure
(f) Conformation of visual contact with UAS

d. The TUAS ROZ utilized (Custer, Riley, or Milford - see Appendix H) will be activated during shadow take- off and landing thru Marshall Radio.
(1) The Custer ROZ will be activated from surface to 3000 feet MSL (unless otherwise coordinated thru Range operations) during take-off and landing. Portions of the Custer ROZ lie within the Limited Use Areas of R3602 as depicted in Appendix L.
(2) TUAS systems will depart Area 1 as expeditiously as possible following take-off (see Appendix M). TUAS Systems will utilize NOE 2B as a climb ROZ to mission altitude.
(3) When the TUAS arrives at mission altitude, it may depart NOE 2B for its mission.
(4) When TUAS is ready to land, it will advise Marshall Radio and proceed as directed to NOE 2 B. With Marshall Radio clearance, the TUAS will descend to 3000 feet MSL and loiter until receiving a clearance to proceed to the TUAS ROZ (See Appendix H).
(5) The TUAS will land as expeditiously as possible once penetrating Area 1. TUAS flight in Area 1 is restricted to take off and landing only with clearance form Marshall Radio. At no time will TUAS operate above 3,000 feet MSL in Area 1. While recovering to land, if the TUAS is unable to land for any reason, coordinate with Marshall Radio for instructions.

e. Except for launch and recoveries operators will ensure the TUAS remains above 2000 feet AGL while at Fort Riley.

f. SUAS (Raven/Puma type) operations.
(1) SUAS operations are prohibited from flight in TA 6,7,8,9,10,11,12,13,14,15,16,20,21, 22,23,24,25,26, and portions of 27,28,29,30 as depicted in Area 1 and 2 in Appendix L.
(2) Operators will schedule ground training and airspace areas through Range operations IAW current scheduling procedures.
(3) Operators will conduct a Radio check with Range operations 30 minutes prior to launch and verify ROZ information.
(4) At 5 minutes prior to launch operators will request that Range operations activate the ROZ and maintain radio contact until the aircraft has landed making position reports every 20 minutes or as requested by Range operations.
(5) After training is complete the operator will verify through Range operations that the ROZ has been terminated.
(6) SUAS operators will notify Range operations with the following if a lost link condition occurs:
(a) Type UAS (Raven, Puma, etc)
(b) Last known position
(c) Altitude
(d) Last known heading

(e) Confirmation of lost link procedure

g. COTS UAS devices are prohibited without an exception to policy waiver approved by the Service Component Chief Information Officer (Dept. of the Army G-6).

h. The following limitations and restrictions apply to manned aircraft while operating within R3602A/B during active UAS operations.

(1) Aircraft will avoid entry into the any ROZ unless operating with the UAS unit and specifically briefed for this operation. Aircraft will acknowledge activation of the ROZ to Marshall Radio upon entry.

(2) Aircraft requiring transition through any ROZ due to an emergency or other special situation will contact Marshall Radio for deactivation of the ROZ. Aircraft will not transition through the ROZ without permission from Marshall Radio.

(3) Operating Altitudes and Area Restrictions. To provide separation between UAS and manned aircraft the following altitude restrictions apply.

i. The SUAS (Raven/Puma) operating in R3602 A/B will normally be cleared to fly at a maximum altitude of 500 feet AGL. Manned aircraft will operate 500 feet above or 1,000 feet below UAS assigned altitudes.

j. The TUAS (Shadow) will operate at an assigned altitude between 4000 feet and 10,000 feet MSL. Manned aircraft will operate no lower than 500 feet above or higher than 1,000 feet below the assigned TUAS altitude.

k. All TUAS systems operating below 3000 feet MSL must remain clear of the Blue & Red Route as depicted on the Fort Riley Installation map. They must remain clear by 500 meters from the centerline of the route, except that portion of Blue Route along Mallon RD- from ACP Blue 5 to ACP Red 1, where UAS' must remain clear by 750 meters east of Mallon road. UAS systems that normally operate at less than 3000 feet MSL may cross the Blue Route & Red Route by 500 meters/750 meters zone, provided their maximum altitude is 100 feet above the ground or less. The 500 meters/750 meters buffer zone protects manned aircraft flight along the Blue Route & Red Route during UAS operations in applicable training areas that border the routes.

(1) The affected training areas are for Blue Route are: TA 6-8, 25, 27, 29, 31, 33, 53, 57, 60, 61, 63, 64, 66, 70, 76, 80, 82, 85, 86, 87, 91, 92, 97-101.

(2) The affected training areas are for Red Route (when in effect) are TA 27, 29, 30, 31, and 32.

**4-13. LIMITED USE AREAS OF R3602.** Certain geographic areas of R3602 require specified authorizations due to FAA separation requirements. The requirements of these areas exist to properly separate aircraft from the boundary of R3602 A/B. The proximity of airfields to the south and eastern boundary have numerous manned flight operations (MAAF/MHK/3JC). Marshall Air Traffic Control shall properly sequence UAS systems flight in these areas (Appendix L). The limitations of use for UAS operations in these areas are stated in paragraph 4-12.

**4-14 AUTHORIZED PASSENGERS.**

a. Military personnel are authorized passengers when all requirements in AR 95-1 and/or

DOD 4515.13R, DOD Air Transportation Eligibility Regulation, are met.

b. Non-DOD Civilians will only be transported with the specific approval of the appropriate authority, as stipulated in applicable directives and DOD regulations.

**SECTION 5**
**REFUELING PROCEDURES**

**5-1. REFUELING PROCEDURES.** The following applies to all refueling operations (hot or cold) on MAAF.

a. Units conducting refuel operations on MAAF are responsible for all regulatory, and ATP 4-43 compliance.

b. The Airfield Safety Manager may spot-check refueling procedures to ensure they are being accomplished IAW appropriate regulations and in a safe manner.

c. Units conducting refuel operations on MAAF will notify airfield operations daily prior to commencing and terminating rapid refuel operations.

d. Aircraft will contact Ground Control for taxi into and out of Oasis refueling area on MAAF (See Appendix J).

**5-2. PROCEDURES FOR DEFUELING.** The following procedures will be followed during all aircraft defueling operations at MAAF.

a. All aircraft defuel operations will be IAW ATP 4-43.

b. Conduct all aircraft defueling operations outdoors in designated areas of MAAF. Before defueling begins, it will be inspected by the MAAF Fire Dept. Contact number is 239-6220. For power defueling, designated defueling areas are any parking pads on the flight line. For gravity defueling greater than five gallons, designated defueling areas are the wash racks near the hangars over drains connected to the fuel water separators. Greater potential for spills exist during gravity defueling and spills greater than five gallons trigger HAZMAT response.

c. The FRFD Fire Officer in Charge, or appointed fire crew member, will inspect the defuel area prior to operations to ensure proper grounding, bonding, and safe operation to include the following:

d. Fuel truck will be parked to maintain a clear and open route to egress the area to a safe distance during an emergency.

e. Fuel truck must be grounded to an approved grounding point.

f. Aircraft must be bonded to the fuel truck.

g. Aircraft must be grounded to an approved grounding point.

h. The defueling tube must be bonded to the aircraft.

i. When defueling is deemed safe by the Fire Officer in Charge, the truck may return to the station. ( Any questions refer to ATP 4-43.) Units conducting defueling operations will notify airfield operations prior to commencing and terminating defuel operations.

**SECTION 6**
**TEST FLIGHTS**

**6-1. MAINTENANCE TEST FLIGHTS (MTFs)**. Maintenance Test Flights are conducted under VFR conditions during day and night hours with the appropriate approval authority. Test flights are conducted per AR 95-1 and appropriate ATM and are conducted in the appropriate test flight area.

**6-2. FLIGHT PLANS** See para 4-1e.

**6-3. TEST FLIGHT AREAS**. See Appendix I for area covered

a. Area A. The boundaries of this area are delineated by a line drawn from the town of Milford proceeding West to grid PJ 7339, then South to the 19 grid line (PJ 7319), then East to Highway 77, then generally North/Northwest (following Highway 77 as a boundary) to the town of Milford.

b. Area B. The boundaries of this area are delineated by a line starting on Blue Route at PJ 960 443, North along the 96 East/West Grid line to PJ 960 640, West along the 64 North/South grid line to PJ 780 640, South along the 78 East/Wet grid line to PJ 780 530, East- following HWY 77 East to PJ 880 527, then South to PJ 880 510, then following Blue Route East to PJ 960 443.

**6-4. COMMUNICATION.**

a. During conduct of the MTF the PC will maintain communications with Marshall GCA for flight following when:

b. Entering a MTF area.

c. Entering power-off/power recovery condition.

d. Departing a MTF area.

e. The MTF Areas have a max density of 5 aircraft at a time. Aircraft operating in the MTF areas make calls to Marshall GCA (VHF 121.25 Primary / UHF 254.35 Alternate). Aircraft operating in the MTF areas establish counter clockwise traffic when more than one aircraft is in the test flight area. MTF area air-to-air discreet frequencies are:

f. FM 82.875- MTF A (Includes NOE Areas 2A & 2B)

g. FM 84.875- MTF B (Includes NOE Areas 3A & 3B)

**SECTION 7**
**SAFETY**

**7-1. GENERAL.** The procedures written in this section are specific to Marshall Army Airfield, and the Fort Riley Local Flying Area. It is not intended to be a reiteration of the guidance already published in higher level regulations. In addition to the procedures and rules published herein, all units and personnel are required to maintain compliance with all applicable higher level rules and regulations. These include but are not limited to; AR-385-10, DA PAM 385-40, and the Fort Riley Safety Management Plan (presently under revision, and will be re-published under the title "Fort Riley Regulation 385-1")

**7-2. AIRCRAFT ACCIDENT PROCEDURES**.

a. Any person having knowledge of an Army aircraft accident, to include a UAS accident, will (by the most expeditious means available) activate the Aircraft Crash Alarm System by contacting one of the following agencies in the order of priority listed below:

(1) 9-1-1 911
(2) MAAF Operations 239-2530

b. Personnel receiving information regarding an aircraft accident will immediately take action under the provisions of the Fort Riley Aircraft Pre-Accident Plan. (Contact MAAF Operations for most recent copy.

c. Aircrew members involved in an aircraft mishap will ensure the following actions are taken:

d. Personnel are removed to a safe area from the accident scene and given medical attention as necessary (do not move injured personnel unless their health is further threatened, i.e., fire, etc.)

e. Accident scene is secured.

f. Aircrew members are taken to hospital for blood and urine samples.

g. In the *event* of an incident requiring the airfield to close, it will remain closed until re-opened by the Airfield Manager. If the Airfield Manager is not available, authority to re-open is delegated to the MAAF Operations Officer.

**7-3. REPORTING AND INVESTIGATING PROCEDURES FOR AVIATION AND GROUND ACCIDENTS.** Notification, reporting, and investigating all aviation and/or ground accidents or incidents, regardless of classification, shall be conducted IAW current Army guidance (AR 385-10 and DA Pam 385-40), and FORSCOM guidance (FORSCOM 385-1). Fort Riley specific guidance is written in Chapter 7 of FR Reg 385-1. The following procedures augment those already established in the aforementioned publications.

a. First person aware of an accident or incident activates the unit, or MAAF Pre-Accident Plan as appropriate (the owning unit commander is contacted ASAP).

b. MAAF Crash Rescue is the on-scene commander and will direct all rescue and firefighting efforts for accidents on Fort Riley.

c. After the Fire Department Incident Commander declares the area safe, the owning unit ASO will take charge of the accident site and ensure it is secured until the accident investigation board president arrives.

**7-4. RELEASE OF INFORMATION**. No individual will release any information regarding aviation operations, incidents, accidents, etc., except to military authorities with a need to know. All public information releases will be through the Public Affairs Office, Fort Riley. In the event of serious injuries or fatalities, the phones (of the unit involved in the mishap) will be secured by the unit commander to prevent release of information.

**7-5. TOWING AIRCRAFT.**

a. No one is authorized to tow aircraft who is not properly certified IAW the MAAF Driver's Certification Program. All personnel operating any vehicle being used for towing aircraft must have in their possession proof of current MAAF Driver's Certification.

b. Radio contact shall be established and maintained with Marshall Tower (or MAAF Operations when tower is not operational), when conducting towing operations and there is a need for clearance to cross, or enter a taxi lane, taxiway, or runway 04/22.

c. When radio communications cannot be established, the supervisor of the towing operation will call MAAF Operations at 239-2475/2530. MAAF Operations personnel will escort the towing operation.

d. Night operations: Vehicle lights will be on, ground personnel will carry flashlights, and paragraph (a) or (b) above will be complied with.

e. Vehicles and pedestrians. Vehicles crossing the runway will be minimized and must be coordinated with MAAF Operations and Marshall Tower during duty hours or CAB flight operations after duty hours. Whenever possible, vehicles will transit the airfield by using the perimeter road. Pedestrians will NOT walk or run across the runways to transition from one side of the airfield to the other. Walking is permitted when escorting towed aircraft.

**7-6. WIRE AND OBSTACLE AVOIDANCE**.

a. MAAF Operations will maintain a current master wire hazards map. This map will be updated every 30 days. The procedures used for updating the map are detailed in the Hazard Map Change Log located in MAAF Operations. The updates are annotated on the log sheet, and a copy of the updated sheet is faxed to the CAB Flight Operations. When new hazards are reported to MAAF Operations by aircrews, they will be annotated on a Fort Riley Wire Hazard Update form, and posted on the master wire hazards map. MAAF Operations will immediately notify the

CAB Flight Operations Section via telephone, followed by a faxed or emailed copy of the update form.

b. When Marshall Operations receive reports of new hazards other than those reported during the normal monthly updates, they will notify other organizations via telephone, and provide the update information. Any time telephonic notification is used to transmit updated information, both the sending and receiving organization should enter the information, along with the operational initials of both parties, on the change log maintained for each map.

**7-7. OPERATIONAL HAZARD REPORTS (OHR).** The goal of the OHR program is early identification and elimination of hazards or unsafe acts that could result in an accident. All OHRs will be dealt with and maintained at the lowest level possible. If the originator and the responsible party or agencies are within the same organization, the OHR should be resolved within the organization. In the case of an operational hazard involving more than one unit, OHRs should be addressed to the Division Safety Office (DSO, 240-1491) for action. For those pertaining to Installation or garrison facilities outside Marshall Army Airfield, OHRs should be addressed to the Installation Safety Office (ISO, 239-8469). OHRs involving MAAF facilities will be addressed to the Airfield Safety Office.

a. Forward the OHR to the Installation Safety Office when recommendations exceed the capabilities of the receiving unit.

**7-8. SUBMISSION PROCEDURES FOR AGARs and AAARs**. Units will submit AGARs and AAARs as prescribed in chapter 7 of the Fort Riley Safety Management Plan (SMP), or the FR Reg 385-1 when the SMP becomes obsolete.

**SECTION 8**
**SPECIAL PROCEDURES**

**8-1. OVERDUE AIRCRAFT.** When aircraft are considered overdue, MAAF Operations will inform the owning unit operations to begin a communication check and ramp search. If this search is negative, MAAF Operations will notify the FROC.

**8-2. TRANSPORTATION OF LIVE ORDNANCE (EMERGENCY LANDING).**

a. During an emergency requiring landing with live ordnance, every attempt by the pilot will be made to land the aircraft within the restricted area, to include roll on landings to suitable landing areas. No portion of MAAF is designed for safely landing an aircraft with live ordnance. The priority for emergency landings with live ordnance on board is (in order of precedence):

(1) The range area or FARP where live fire is conducted.
(2) The restricted area (R3602 A/B) with the Gun Target Line (GTL) towards the impact area.
(3) MAAF.
(4) Any area.

b. Aircraft containing live ordnance must adhere to the following when arriving, departing or operating at MAAF:

c. Live ordnance aircraft will park on the compass rose only. It must park on a heading 360 degrees until it has been de-armed. During the time that aircraft with live ordnance is occupying the compass rose area, overflight (within 500 feet) by other aircraft of the compass rose is prohibited.

d. A fire truck will reposition along the active runway prior to the live ordnance aircraft landing and will follow the aircraft to its parking place. The fire department will also be standing by during all loading, unloading, refueling, and maintenance. During departure of the aircraft the fire truck will stand by during engine start, run up, taxi, and until aircraft has departed the airfield boundaries.

e. Live ordnance aircraft will be grounded by temporary grounding rod, available from POL, at all times while parked on the Compass Rose.

f. MAAF Operations will contact the Military Police to Barricade MAAF drive between the motor pool and hangar area.

g. The owning unit will place a vehicle at 50 Meters in front of the armed aircraft.

**8-3. SECURITY OF AIRCRAFT**. All aircraft to include aircraft assigned or attached to Fort Riley or transient aircraft at MAAF will, when left unattended for four or more hours, be secured as follows:

a. Fixed Wing - control yoke/stick and/or quadrant locked. In addition, if practical, entry

doors will be locked. Aircraft grounded, tied down with a contact number (for transit only) left at MAAF Operations.

b. Rotary Wing - starting circuit locked and (if practical), entry doors/canopies locked. All aircraft will comply with minimum tie-down procedures IAW the applicable operator's manual. A contact number must be left at MAAF Operations (for transient aircraft only).

**8-4. INADVERTENT INSTRUMENT METEOROLOGICAL CONDITIONS (IIMC) WITHIN 20 NM OF MARSHALL ARMY AIRFIELD**

a. When initially entering IMC, comply with the applicable ATM for the aircraft being flown.

b. Establish a climb to 3000 feet MSL.

c. Maintain heading, turn only to depart the restricted area in the most expeditious manner possible or avoid known obstacles.

d. Contact the appropriate ATC facility, advise them you are inadvertent IMC, give your position, altitude, and heading and request ATC clearance for an approach.

**8-5. VEHICLE OPERATIONS.** Vehicle Operations and the physical security plan for MAAF are also covered in the AD-DPTMS Physical Security SOP.

a. Vehicle Access to MAAF: The area inside the confines of Ray Road, Marshall Avenue, and Henry Drive is considered the aircraft operating area (with the exception of POV parking areas designated by the Airfield Manager). It is designated a restricted area IAW AR 190-51. Access to this area is restricted to those personnel authorized by the Garrison Commander, the Airfield Manager or the Combat Aviation Brigade Commander.

b. The following list provides general guidance for vehicle access to MAAF. It is not "all inclusive" and does not cover every contingency. It is intended to restrict vehicle access to MAAF for Physical Security purposes IAW AR 190-13 and AR 190-51 while allowing construction projects to continue. Physical Security is the overriding consideration. When in question, restrict access until directed otherwise by the Airfield Manager, Airfield Operations Officer or PMO.

c. The following guidelines will be used for vehicle access to MAAF:

(1) <u>Authorized vehicles</u>: All vehicle operators must receive a safety briefing from MAAF Operations personnel prior to operating a vehicle in the restricted area. All vehicles operating in the restricted area must use proper vehicle lighting at all times. All vehicles operating on the aircraft movement area must have 2-way communication with MAAF Operations or the Air Traffic Control tower and have received clearance to do so. Authorized vehicles include:

(a) Construction vehicles that are clearly marked with a construction company logo.
(b) Construction equipment, i.e. backhoes, bulldozers, front-end loaders, concrete trucks and flatbed trucks required to transport them.
(c) Vehicles clearly marked as DPW vehicles.
(d) Vehicles clearly marked as NEC vehicles.

(e) MAAF Operations vehicles.
(f) Aircraft tugs and tractors.
(g) Tanker HEMTTs that are conducting hot or cold refuel operations.
(h) GSA vehicles that have prior approval of the Airfield Operations Officer.
(i) Military vehicles that have prior approval of the Airfield Operations Officer.
(j) Vehicles performing routine airfield maintenance, i.e. mowers, well monitoring, etc.

(2) Unauthorized vehicles: All others not specifically authorized by this document, the Airfield Manager, Aviation Brigade Commander or the Garrison Commander.

d. Privately owned vehicles are prohibited from operating in the restricted area at all times.

**8-6. BORESITE TARGET INFORMATION:** A boresite target is located in the northwest portion of MAAF near the intersection of Henry DR and Ray RD (see Annex D). The target grid and elevation information is 14S PJ 9621 2471, Altitude is 1075 feet MSL. A boresite target is also located within view of the MPRC FARP pads, to the southeast (see Fort Riley LUHLS manual). The target grid and elevation information is 14S PJ 8253 5058, Altitude is 1280 feet MSL.

**8-7. AVIATION TRAINING FACILITIES**

a. Flight Landing Strip (FLS) Savage Field. A US Air Force surveyed flight landing strip is available for use. For more information, contact Range operations telephone 785-239-4805, or DSN 856-4805.

b. A Mock Airfield. A Mock Airfield is available for use. For more information, contact Range operations telephone 785-239-4805, or DSN 856-4805.

c. There are external load training blocks (X5) available for use ranging in weight from 4000 lbs. to 18,000 lbs.

(1) Training blocks are located at the Mock Airfield and are required to be returned to their pick up location when training is complete.
(2) External users, contact Range Operations for more information, 785-239-4805, or DSN 856-4805.
(3) Current information regarding the condition of the training blocks may be found in the Fort Riley LUHLS manual.

**SECTION 9**
**SEVERE WEATHER**

## 9-1. WEATHER DEFINITIONS.

a. Weather Advisory

(1) A weather advisory is a special notice provided to alert supported customers to weather conditions that could affect their operations. A weather advisory can be either an Observed Weather Advisory (OWA) or Forecast Weather Advisory (FWA) depending on customer requirements and as documented in the Installation weather support plan.
(2) The coverage of an advisory will depend on the extent of the weather phenomenon and will be indicated in the text of the advisory. Weather phenomena detailed in the weather advisory may not be evident within the entire advisory area and may not necessarily be continuously observed throughout the entire valid period. Advisories will only be canceled once the forecaster reasonably determines that the potential for reoccurrence is no longer present.

b. Weather Watch

(1) A weather watch is a special notice provided to alert supported customers to the potential for weather conditions of such intensity as to pose a hazard to life or property for which the customer would need to take protective actions should the potential become realized. A watch is only an alert of potential and is not a statement of expected or immanent conditions. Watches do not necessarily mean that a warning will follow.
(2) If the forecaster determines that the condition is expected to occur, a warning will be issued stating that the watch has been upgraded. The numbering of the superseding warning will not necessarily be identical to the initial watch number. Except for lightning, only one watch will be in effect for the same time span for any given location. If a watch is issued for one criterion and it later becomes necessary to issue another watch for another criterion, a new watch will be issued to include both criteria forecast to affect that location. This new watch replaces the previously issued watch.
(3) The coverage of a watch will depend on the extent of the weather phenomenon and will be indicated in the text of the watch. Watches will only be canceled once the forecaster reasonably determines that the potential for occurrence is no longer present.
(4) Weather Warning. A weather warning is a special notice provided to alert supported customers to weather conditions (occurring or imminent) of such intensity as to pose a hazard to life or property and for which immediate protective action must be taken. Coverage, numbering, and cancellation procedures are the same as those for a watch.

c. Lightning Watches and Warnings.

(1) A Lightning Watch is a special notice provided to alert supported customers of lightning forecast to occur at or near a specified location within 30 minutes. Lightning Watches for MAAF will specify a 5 nautical mile radius around the airfield.
(2) An Observed Lightning Warning will be issued upon forecaster verification of a lightning strike utilizing an approved Lightning Detection system (LDS). In the absence of a LDS, forecasters will utilize available radar imagery and/or visual confirmation of a strike by a certified weather observer.

(3) Lightning Watches and Warnings will be issued as separate entities from all other existing watches and warnings.
(4) Lightning Watches are canceled only when the potential for lightning within the next 30 minutes is no longer forecast.
(5) Observed Lightning Warnings are canceled only when thunderstorms have passed beyond and lightning is no longer occurring within or near the specified area covered by the warning.

d. Notification of Advisories, Watches, and Warnings. Direct notification by Fort Riley weather personnel is limited to the Fort Riley Operations Center (FROC), Air Traffic Control (ATC), Combat Aviation Brigade Flight Operations, and MAAF Operations.

**9-2. ATC Tower EVACUATION**

a. Marshall Tower facility service terminates when personnel are required to evacuate the tower.

b. Marshall Tower shall make a transmission on all assigned frequencies when services are terminated and resumed, and update the ATIS information to reflect current facility status.

c. Aircraft operating within the Marshall Class D surface area shall continue to make position calls on 126.2 while the ATCT is evacuated.

**SECTION 10**
**CLOSE AIR SUPPORT (CAS) AND JOINT AIR ATTACK TEAM (JAAT) TRAINING**

**10-1. GENERAL**. The Fort Riley Military Training Area and Special Use Airspace has been approved for fixed wing, high performance training. The CAS and JAAT training may be conducted in R-3602 A/B with approval of Range operations and G3.

**10-2. RESTRICTIONS**. All noise sensitive/noise abatement areas will be avoided. These areas are posted in MAAF Operations at MAAF. Flight by fixed wing, high performance aircraft is not permitted south of 39°7'49" North latitude while in the military training area. Special Use Airspace within R-3602 A/B extends from the surface to 29,000 feet. Upon notification of CAS/JAAT missions, the MAAF Operations Officer or Airfield Manager will close the affected air route structure and NOE training areas.

**10-3. SCHEDULING**. 10th Air Support Operations Squadron (ASOS) is the Air Force agency responsible for scheduling CAS and JAAT missions through Range operations and G3.

**10-4. ADVISORIES.** Range operations provides MAAF Operations written advisories indicating dates and times of CAS/JAAT operations including aircraft type. Operations Officer or Airfield Manager will then publish a local Notice to Airmen (NOTAM) closing the affected training areas.

**10-5. FREQUENCIES**. FM frequency 40.80 is the Fort Riley Range operations aircraft advisory frequency and will be used for air to ground and air-to-air emergency traffic if necessary. All helicopters training in the Fort Riley Military Training Areas will maintain FM communications with Range operations on 40.80 at all times. Air Force Forward Air Controllers (FACs) will also monitor frequency 40.80 during the conduct of CAS/JAAT operations. Army rotary wing aircraft will avoid using CAS UHF frequencies except in an emergency. Frequencies 133.35 and 242.3 are also available for contacting Range operations.

**10-6. MEDEVAC.** Range operations will advise all stations that a MEDEVAC is in progress on frequency 40.80. Upon notification of a MEDEVAC, ground FACs will direct all high performance CAS/JAAT aircraft to maintain an altitude not lower than 3000 feet MSL. During MEDEVAC, CAS/JAAT may continue their mission above 3000 feet MSL.

**10-7. ALTITUDES**. The owning units' SOP dictates high performance aircraft minimum altitudes. Normally, aircraft will hold at initial points (IPs) at or above 4000 feet MSL and descend during ingress to the target and climb during egress back to the ingress IP. Aircraft operating outside of, but in proximity to R3602 A/B should exercise caution and expect high performance aircraft conducting CAS at any altitude from 100 feet AGL and higher.

**10-8. INITIAL POINTS:**
North End of Dam PJ 820287
East End of Causeway PJ 743429
Bridge of Road PJ 829332

Southwest End of Dam QJ 069475
Road Intersection PJ 790591
Road Intersection PJ 935521
Road Bend PJ 919475
Intersection PJ 875343

**10-9. INADVERTENT IMC**. If a high performance aircraft participating in CAS/JAAT inadvertently encounters IMC conditions, that aircraft can be expected to climb to a minimum of 4500 feet MSL and assume a heading that will allow it to depart the restricted area to the northwest.

**SECTION 11**
**GRAY EAGLE UAS OPERATIONS**

## 11-1. GRAY EAGLE OPERATIONS GENERAL

Gray Eagle flight operations are conducted in MAAF Class D, R3602A/B and between R3602A/B and R3601. Operation in the Class D and between R3602A/B and R3601 are required to operate under a Certificate of Authorization (COA) from the Federal Aviation Administration. Strict observance of the terms and provisions of the COA shall be adhered to by all participants. The most recent COA can be obtained from the Installation AT&A officer. Marshall Air Traffic Control must be operational during all Gray Eagle flight operations. Requests to operate Gray Eagle outside of normal ATC hours will be approved by 1st ID, G3 Air,785-240-6312, a minimum of two weeks in advance of anticipated flight date.

a. Flight Plans for Gray Eagle will be filed IAW paragraph 4-1, Gray Eagle flight route of flight can be stated as "Traffic Pattern, Warrior ROZ, EMCD", further mission routing will be defined by every point in a 6 digit grid format.

b. General Communication Procedures. Gray Eagle operators are required to have a back-up communication method at all times. A telephone will suffice for this requirement. Gray Eagle operators shall contact Marshall Ground prior to taxi and provide mission profile, and request a beacon code. Prior to Gray Eagle departure, ATC shall de-conflict manned aircraft in the appropriate traffic pattern.

c. Lost Communication. In the event of Gray Eagle operators losing radio communications with MAAF ATC or Range operations, the operator will:

(1) Change squawk code on transponder to 7600

(2) Re-establish Communications via telephone with MAAF ATC or Range operations and coordinate actions.

d. Transponder Codes. Transponder Codes will be assigned by MAAF ground control upon initial contact.

e. Ground Observer. The Gray Eagle is required two trained ground observers for flight in MAAF Class D. Ground observers will have radio and telephonic communication with the Gray Eagle operator. One Ground observer must be located at PJ 936 292, on top of the hill co-located with the ASR11 and twin tanks. The remaining ground observer can be located at the GCS Site located at PJ 936 256. Ground Observers are not required when the Ground Based Sense and Avoid System (GBSAA) is installed and functional.

f. Chase Plane Procedures. Chase aircraft with observers may be used in lieu of ground observers. Chase aircraft pilots are not authorized to perform observer or UAS operator duties while flying the chase aircraft. Observers onboard the chase aircraft will not perform UAS operator duties. The chase aircraft will operate according to the certificate of authorization instructions. Observers onboard a chase aircraft must keep visual contact with the UAS at all times. Chase aircraft may be utilized during day and night operations.

(1) If an emergency condition exists on the chase aircraft, it shall notify both the Gray

Eagle operator and Marshall ATC. If the Gray Eagle is arriving or departing during the declared emergency, a ground observer will attempt to obtain visual contact with the Gray Eagle and continue to observe the UAS until landed. If airborne during the chase plane emergency, the Gray Eagle will remain in restricted airspace. Ground observers will be detailed to the ground observer positions and Gray Eagle may then recover/launch. Ground observers are not required while the Gray Eagle is operating in the Class D airspace if the GBSAA is operational.

**11-2. MAAF Class D Operations** Gray Eagle operates under the provisions of a COA from the Federal Aviation Administration for flights inside MAAF Class D. Strict observance of the terms and provisions of the COA shall be adhered to by all participants.

a. Normal Procedures. Communications shall be established IAW paragraph 11-1c for Class D operations. During routine flights, the Gray Eagle shall arrive and depart MAAF Class D as expeditiously as possible. The exit and entry point for MAAF Class D is 14S PJ 942 304 (N39 06.07 W96 45.18). All routing will be IAW Appendix N, Gray Eagle Traffic Patterns.

b. Departure/Arrival Procedures. Gray Eagle aircrews will conduct departure and arrival procedures on the runway most closely aligned with the wind.

c. Go Around Procedures. Gray Eagle go around procedures will be done at or below 2000 feet MSL.

d. Mixed Traffic. For combined manned and unmanned operations in the Class D airspace see Paragraph 3-3a(1).

e. Emergency Landing Pattern. When the operator is conducting a flight departing MAAF for R3602A/B as described in paragraph 11-2b1, it is the operators requirement to ensure the Gray Eagle does not fly off or away from the prescribed routing.

**11-3. R3602A/B Operations** The Gray Eagle will normally operate at an assigned altitude between 6000 feet and 16,000 feet MSL while inside R3602A/B. Manned aircraft will operate no lower than 500 feet above or higher than 1,000 feet below the assigned Gray Eagle assigned

a. Normal Procedures. Upon Entry into R3602A/B the Gray Eagle will follow the Warrior ROZ route to the Emergency Mission/Climb & Descent (EMCD) continuing its climb to mission altitude. Once inside the EMCD, the Gray Eagle will fly a clockwise pattern. Upon reaching mission altitude or obtaining the required altitude separation from active airspace or other aircraft the Gray Eagle may depart the EMCD and operate in Areas 1 and 2 (see Appendix M). When mission is complete, Gray Eagle will return to the EMCD area and request to descend to 2000 feet MSL. Upon reaching 2000 feet MSL, the Gray Eagle will request a clearance from Marshall Radio to return to MAAF. Prior to entry into the Class D airspace the Gray Eagle will contact Marshall Tower.

(1) TO EMCD:

| WAYPOINT/GRID POINT | LATITUDE/LONGITUDE |
|---|---|
| Entry/Exit Point PJ 943 304 | N39 06.07 W096 45.18 |
| WPT 2 / PJ 911 331 | N39 07.60 W096 47.636 |
| WPT 3 / PJ 880 393 | N39 10.98 W096 49.39 |

(2) EMCD Pattern:

| WAYPOINT/GRID POINT | LATITUDE/LONGITUDE |
|---|---|
| WPT 3 / PJ 880 393 | N39 10.98 W096 49.39 |
| WPT 4 / PJ 899 419 | N39 12.37 W096 48.03 |
| WPT 5 / PJ 880 449 | N39 14.02 W096 49.27 |
| WPT 6 / PJ 843 449 | N39 14.07 W096 51.82 |
| WPT 7 / PJ 829 419 | N39 12.47 W096 52.89 |
| WPT 8 / PJ 842 391 | N39 10.94 W096 51.99 |
| WPT 9 / PJ 880 393 | N39 10.98 W096 49.39 |

b. Holding zones de-conflict simultaneous Shadow & Gray Eagle flight, for use by either system. The UAS system may be called to this area while other systems are climbing, descending, or during any emergency. If operating below the minimum altitude, the UAS system will not depart its normal operating area for the Holding Zone until it has reached the minimum altitude as described for its assigned Holding Zone. The minimum altitudes are designed to provide separation from helicopter routing. UAS' may request or be required to hold at higher altitudes as directed by Marshall Radio. UAS' will hold in a clockwise pattern as depicted. Manned aircraft will be advised via Marshall Radio when holding zones are in effect. The Holding zones and minimum altitudes are defined as follows. See Appendix N for Holding Zone depictions:

(1) Holding Zone 1- Minimum altitude is 3500 feet MSL Loiter area:

| GRID POINT | LATITUDE/LONGITUDE |
|---|---|
| PJ 780 520 | N39 17.95 W096 56.13 |
| PJ 764 520 | N39 17.96 W096 57.25 |
| PJ 765 480 | N39 15.83 W096 57.22 |
| PJ 780 480 | N39 15.81 W096 56.18 |

(2) Holding Zone 2- Minimum altitude is 4000 feet MSL Loiter area:

| GRID POINT | LATITUDE/LONGITUDE |
|---|---|
| PJ 780 464 | N39 14.92 W096 56.23 |
| PJ 764 464 | N 39 14.92 W096 57.36 |
| PJ 765 419 | N39 12.50 W096 57.38 |
| PJ 782 420 | N39 12.52 W096.56.17 |

(3) Holding Zone 3- Minimum altitude is 3500 feet MSL Loiter area:

| GRID POINT | LATITUDE/LONGITUDE |
|---|---|
| PJ 869 377 | N39 10.13 W096 50.19 |
| PJ 830 376 | N39 10.11 W096 52.92 |
| PJ 830 347 | N39 08.57 W096 52.95 |
| PJ 870 349 | N39 08.58 W096 50.19 |

c. Communication Procedures. Prior to entry into R3602A/B, Gray Eagle operators shall contact Marshall Radio on (VHF118.375 Primary / UHF 247.0 Alternate) with UAS identification, location, and most current RIS information (VHF 123.75). Following initial contact, communications requirements will follow standard flight following procedures.

d. No Fly Area (Area #1). When Gray Eagle crosses from "Area 1" into "Area 2 or 3" (as depicted in Appendix M, Limited Use Area"), it shall not return to "Area 1" without clearance from Marshall Radio. "Area 1" is a no fly for all aircraft activity (as defined in JO 7210.3) except during departure and arrival (to/from) MAAF Class D.

e. Gray Eagle systems operating below 3000 feet MSL must remain clear of the Blue & Red Route as depicted on the Fort Riley Installation map. They must remain clear by 500m from the centerline of the route, except that portion of Blue Route along Mallon RD- from ACP Blue 5 to ACP Red 1, where Gray Eagle must remain clear by 750m east of Mallon road. The 500m/750m buffer zone protects manned aircraft flight along the Blue Route & Red Route. The affected training areas are for Blue Route are: TAs: 6-8, 25, 27, 29, 31, 33, 53, 57, 60, 61, 63, 64, 66, 70, 76, 80, 82, 85, 86, 87, 91, 92, 97-101. The affected training areas are for Red Route (when in effect) are TAs: 27, 29, 30, 31, and 32.

**11-4. Lost Link Procedures.** Lost Link procedures for UAS operations will be in accordance with all Department of the Army regulations.

a. Lost link programmed procedures will avoid unexpected turn around and/or altitude changes and will provide sufficient time (2-3 minutes) to communicate and coordinate with ATC prior to executing any lost link maneuver. It is preferred that at least the initial Lost Link Procedure include las assigned/coordinated heading and altitude.

b. Gray Eagle operators will notify Marshall Tower or Marshall Radio with the following if a lost link condition occurs.

(1) Time of lost link
(2) Last known position
(3) Altitude
(4) Direction of flight
(5) Confirmation of lost link procedure
(6) Confirmation of visual contact with UAS
(7) Endurance Remaining. Expressed in hours and minutes of useable fuel remaining to burn-out, e.g. 7 hours and 10 minutes to burn-out.

c. The aircraft will follow its designated route to the EMCD area, loiter in that portion of the EMCD area and will fly the EMCD route until link is reestablished. If link is not re-established, the Gray Eagle will fly the EMCD route until fuel exhaustion, at which time the engine will quit and the Gray Eagle will transition to battery power. Aircraft will then continue to fly the EMCD route under battery power, lower landing gear, and commence a preprogrammed descent until ground contact.

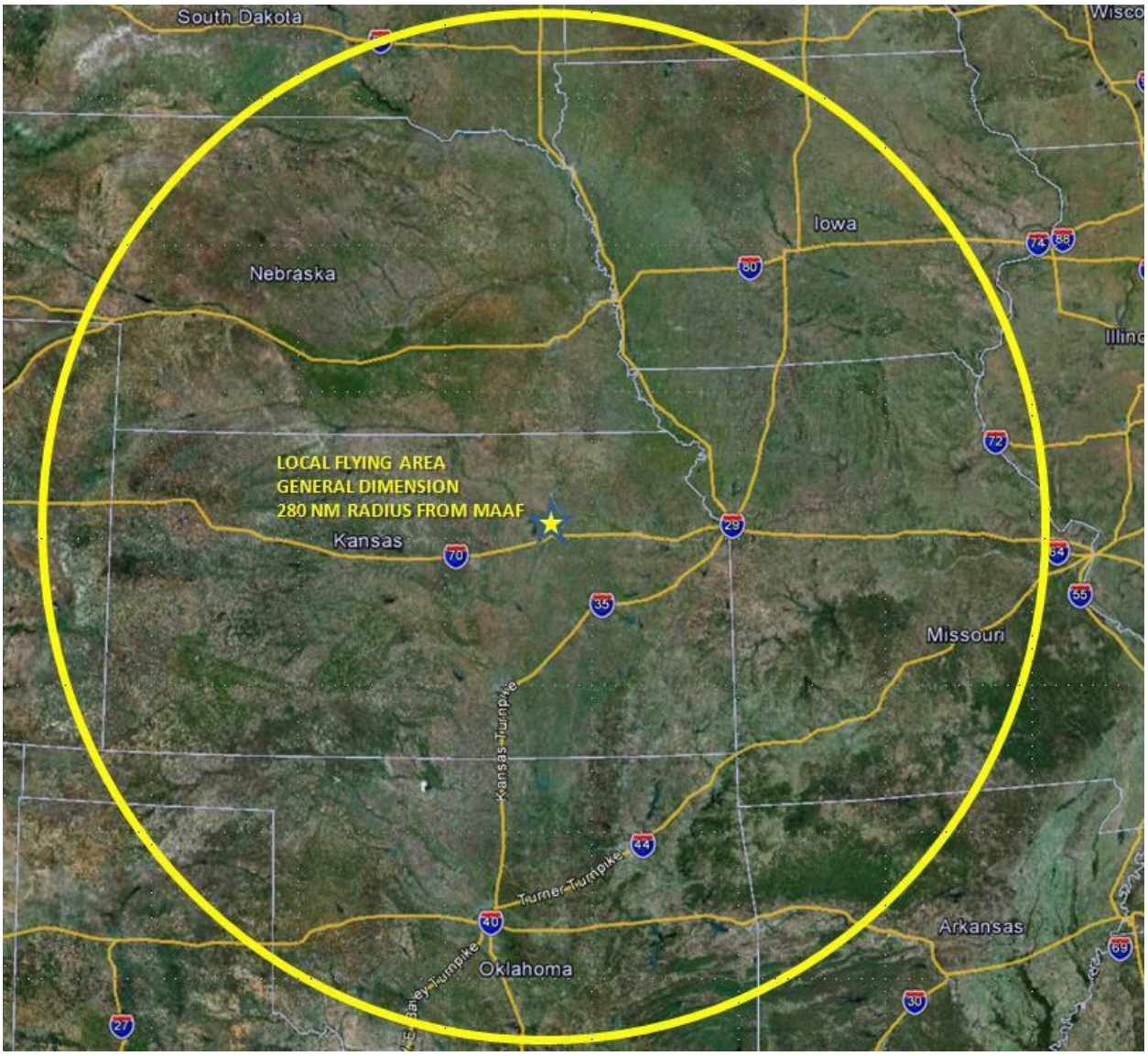
(1) In Class D: In addition to paragraph 11-4b above, the operator will program the Gray Eagle as necessary to fly the prioritized arrival procedures cited in 11- 2b, Warrior ROZ & EMCD pattern during all phases of flight in Class D. The lost link route cannot purposefully deviate from this routing. The operator is required to update lost link routing and altitude as necessary to ensure Gray Eagle does not deviate from these courses during a lost link sequence. Once established in the EMCD Area, the Gray Eagle will continue to orbit as stated above. The Emergency profile altitude will be 6,000 feet MSL during routine traffic pattern operations.

(2) In R3602A/B. In addition to paragraph 11-4b, the Gray eagle will be programmed to

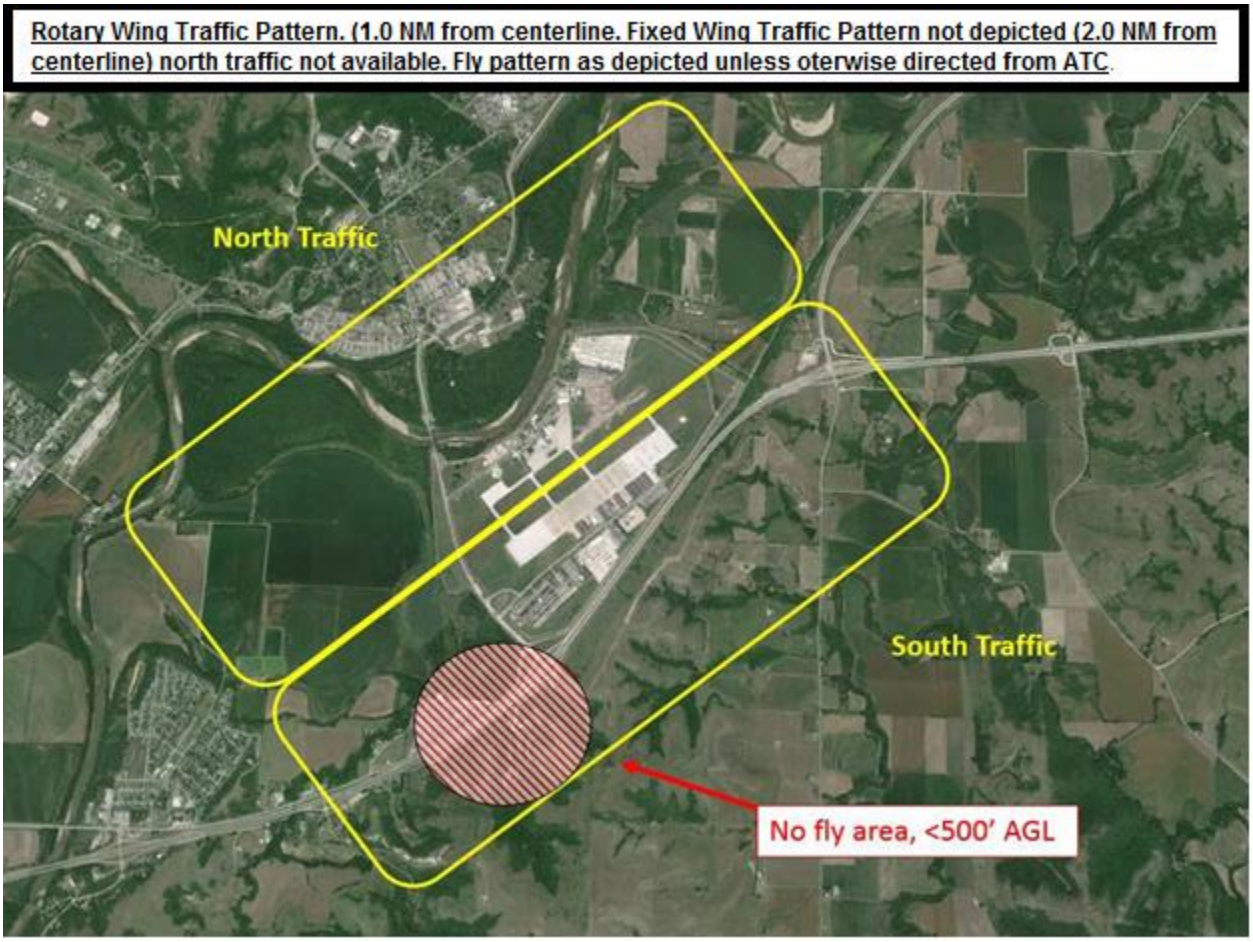
fly directly to the EMCD pattern WPT 3 and fly the clockwise pattern of EMCD and orbit as stated above. The Initial Lost Link Heading will be set by the operator to ensure the aircraft remains within R3602A/B. The Emergency profile altitude will be 6,000 feet MSL during operations in R-3602A/B.

(3) The code 7400 may be displayed by UAS when control link between the aircraft and the pilot is lost. UAS airframes not programmed to squawk 7400 will continue to squawk 7600 should a lost link occur.

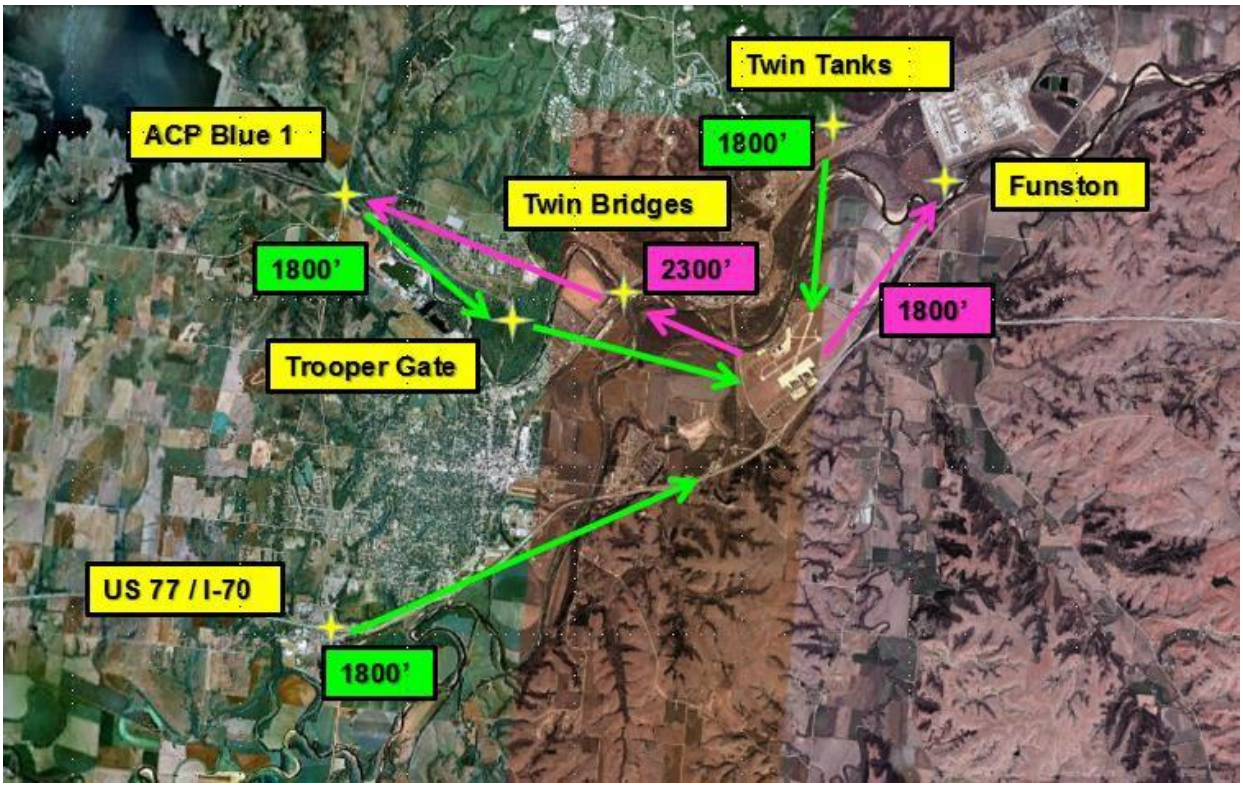
**APPENDIX A**
**LOCAL FLYING AREA**



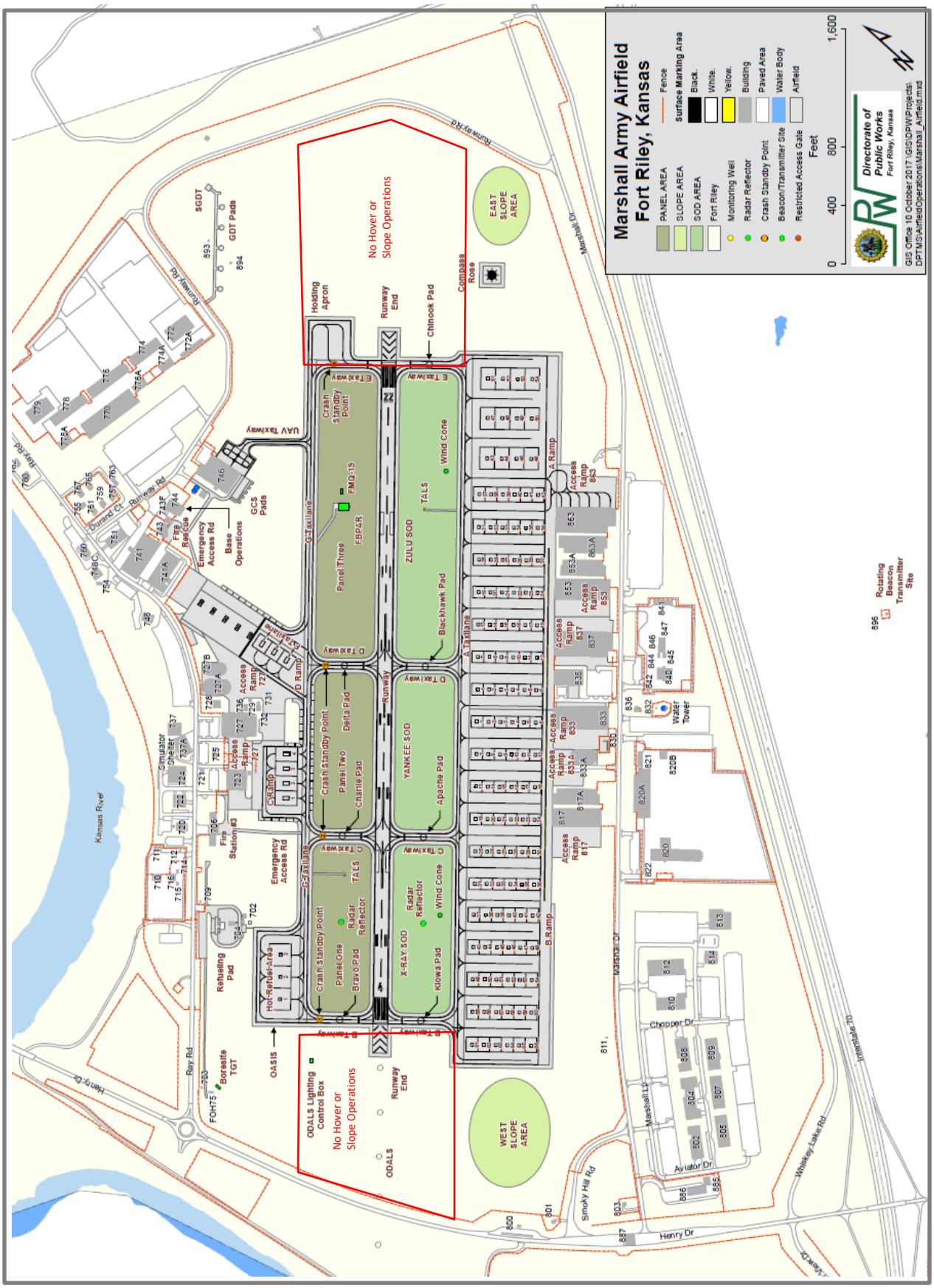
**APPENDIX B**
**MAAF MANNED AIRCRAFT TRAFFIC PATTERNS**



**APPENDIX C**
**MAAF VFR ROUTING**



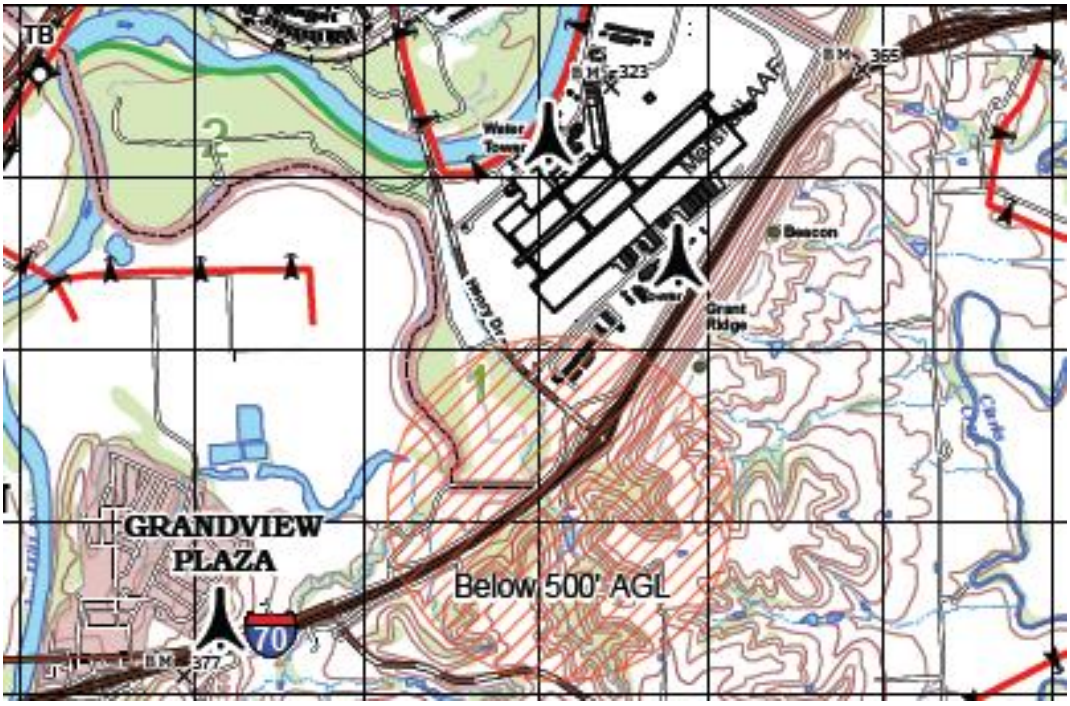
## APPENDIX D MAAF DIAGRAM



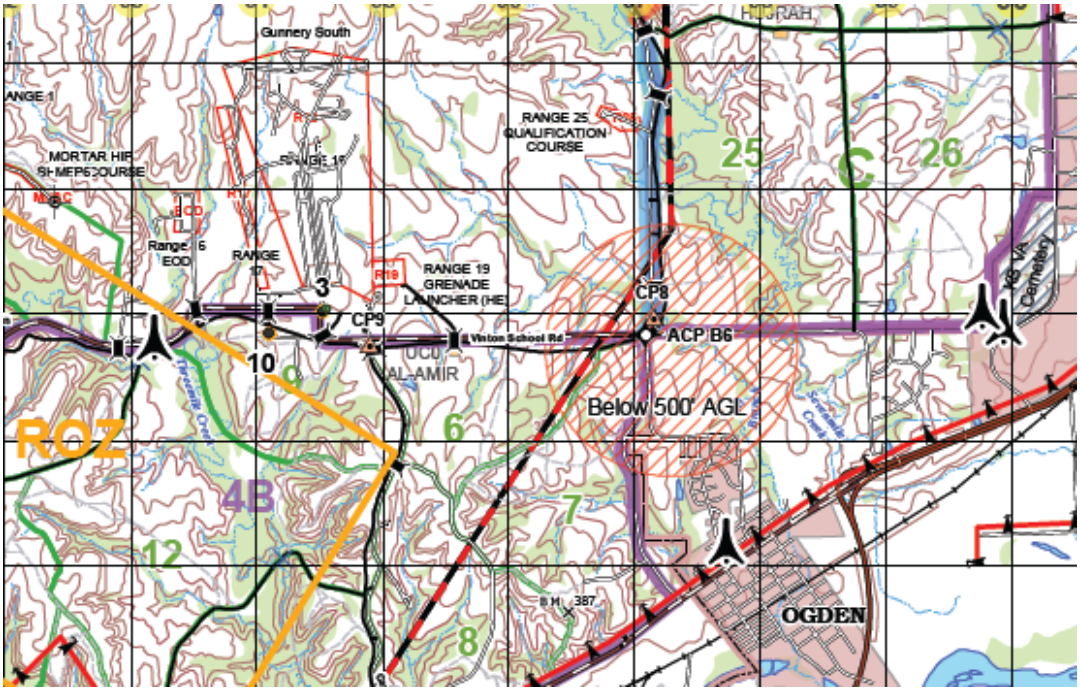
**APPENDIX E**
**NOISE SENSITIVE AREA**

a. No overflight, 500 Feet AGL Minimum within 1 KM radius:

(1) Dog Kennel MGRS PJ 932229




(2) Horse Stable MGRS PJ 971338

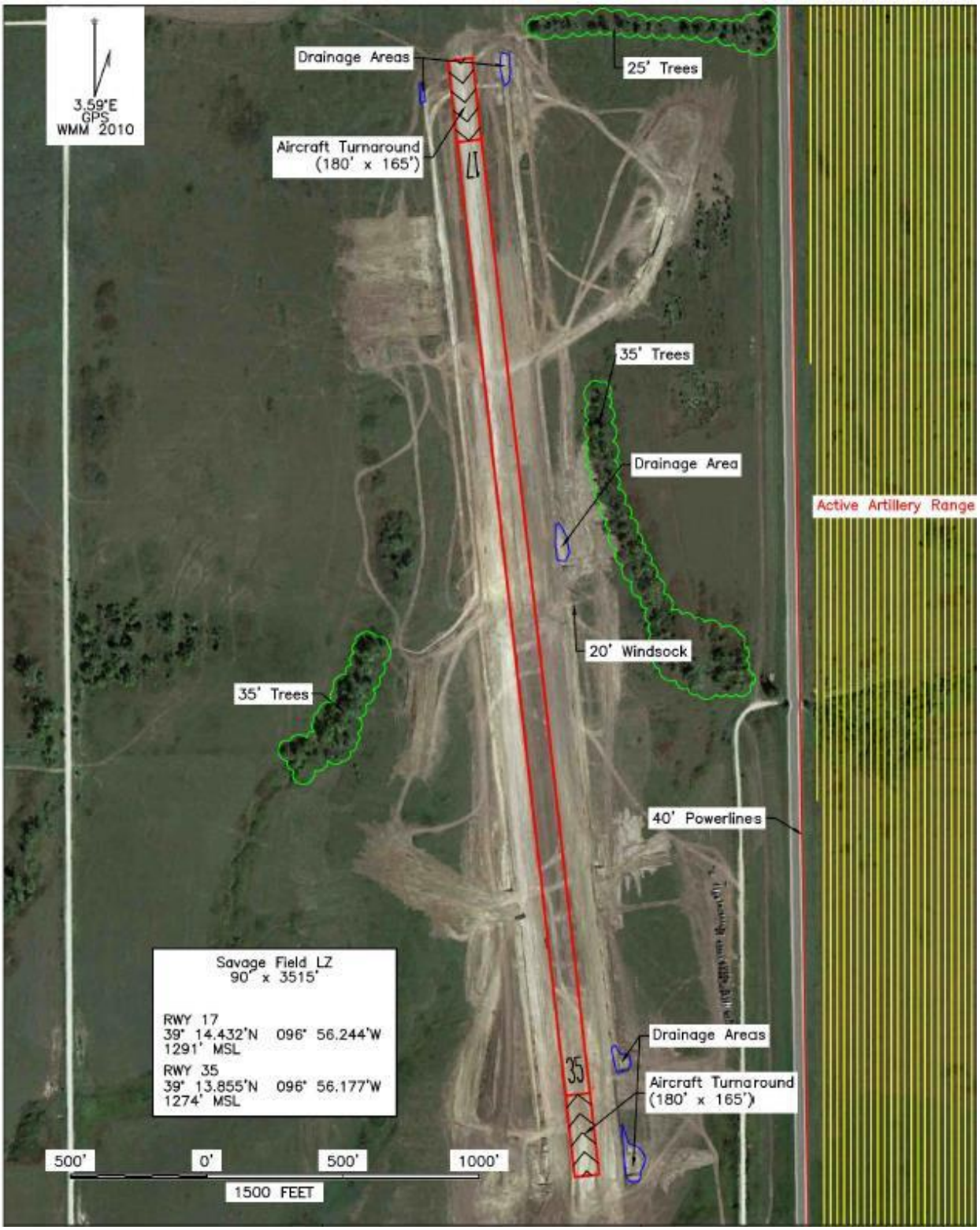


**APPENDIX F**
**FORT RILEY AERIAL RANGE INFORMATION CARD**

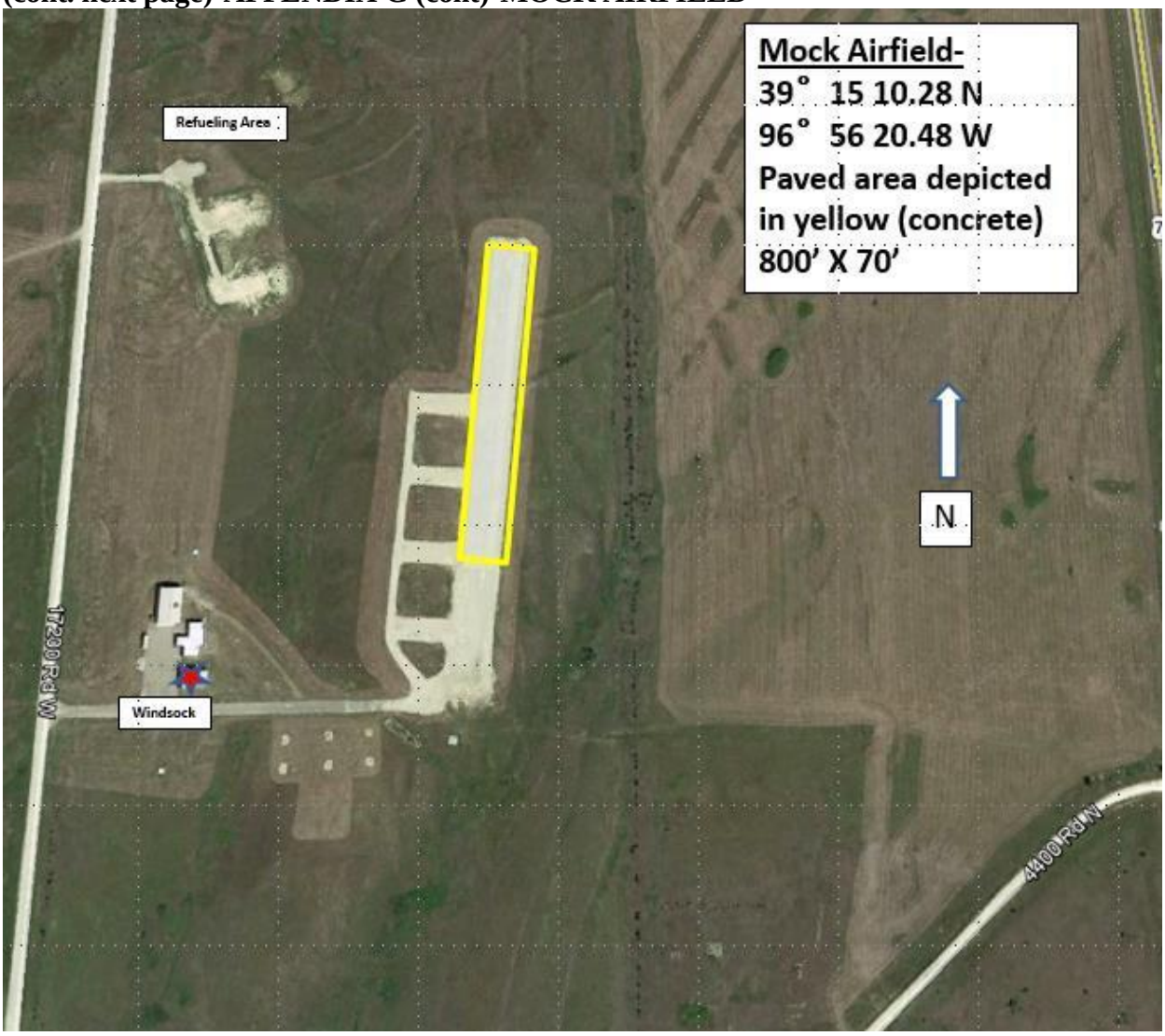
| FORT RILEY AERIAL RANGE INFORMATION | | | |
|---|---|---|---|
| INFORMATION: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z | | | |
| LINE | HOT/ACTIV | | COMMENTS |
| 1.WEATHER WARNINGS & ADVISORIES | Y | N | |
| 2.TIMBER CREEK DROP ZONE | Y | N | |
| 3.MPRC DANGER AREA STATUS | Y | N | |
| 4.RILEY MOA STATUS | Y | N | |
| 5.IMPACT AREA STATUS | Y | N | |
| 6.TNG AREA ACTIVITY AND RESTRICTIONS | Y | N | |
| | | | |
| 7. NOTAMs | | | |
| 8.PLAIN TEXT: | | | |


| FORT RILEY AERIAL RANGE INFORMATION | | | |
|---|---|---|---|
| INFORMATION: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z | | | |
| LINE | HOT/ACTIV | | COMMENTS |
| 1.WEATHER WARNINGS & ADVISORIES | Y | N | |
| 2.TIMBER CREEK DROP ZONE | Y | N | |
| 3.MPRC DANGER AREA STATUS | Y | N | |
| 4.RILEY MOA STATUS | Y | N | |
| 5.IMPACT AREA STATUS | Y | N | |
| 6.TNG AREA ACTIVITY AND RESTRICTIONS | Y | N | |
| | | | |
| 7. NOTAMs | | | |
| 8.PLAIN TEXT: | | | |

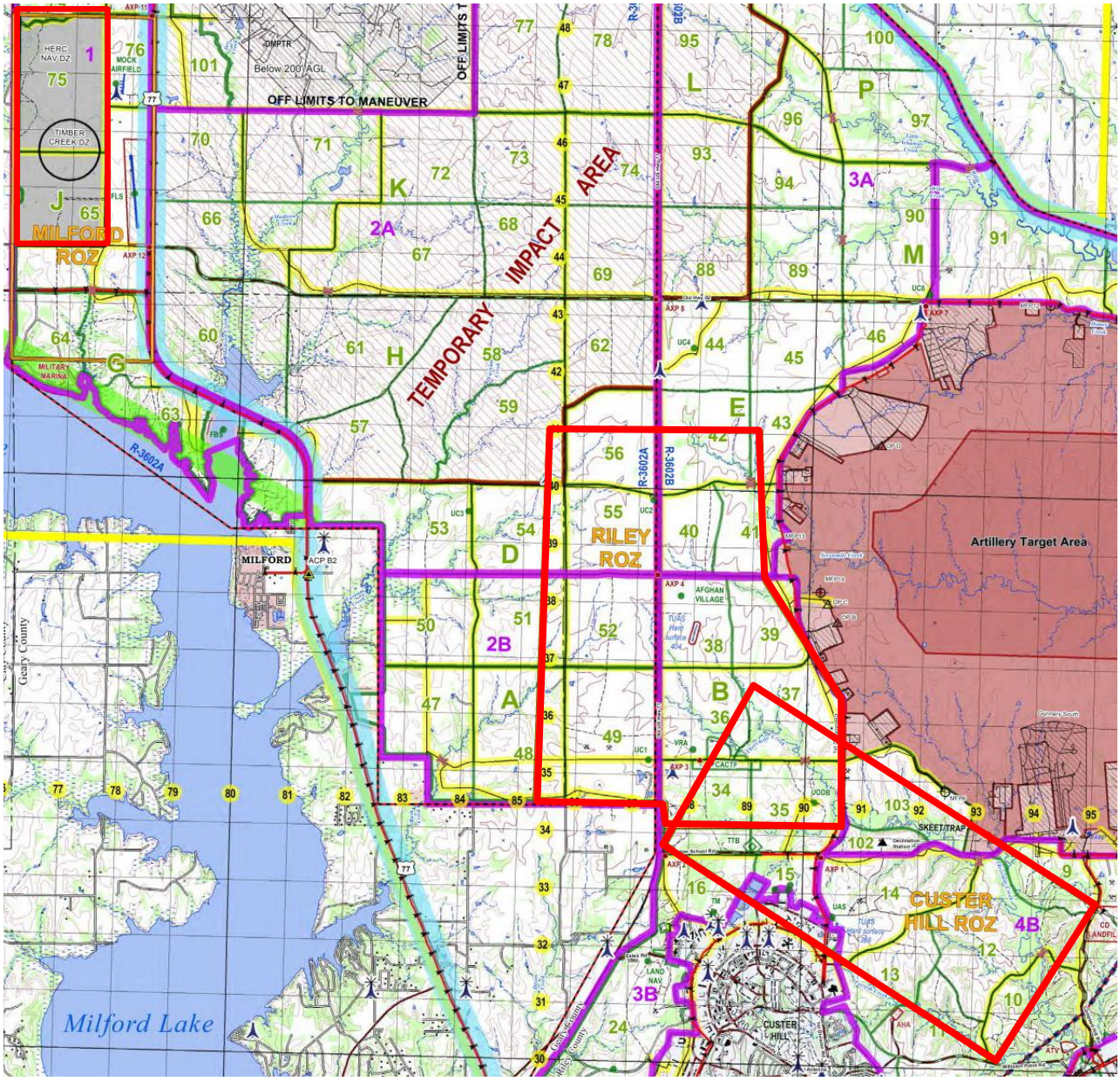
**APPENDIX G**
**AVIATION TRAINING FACILITIES SAVAGE FIELD (FLIGHT LANDING STRIP)**



**(cont. next page) APPENDIX G (cont) MOCK AIRFIELD**

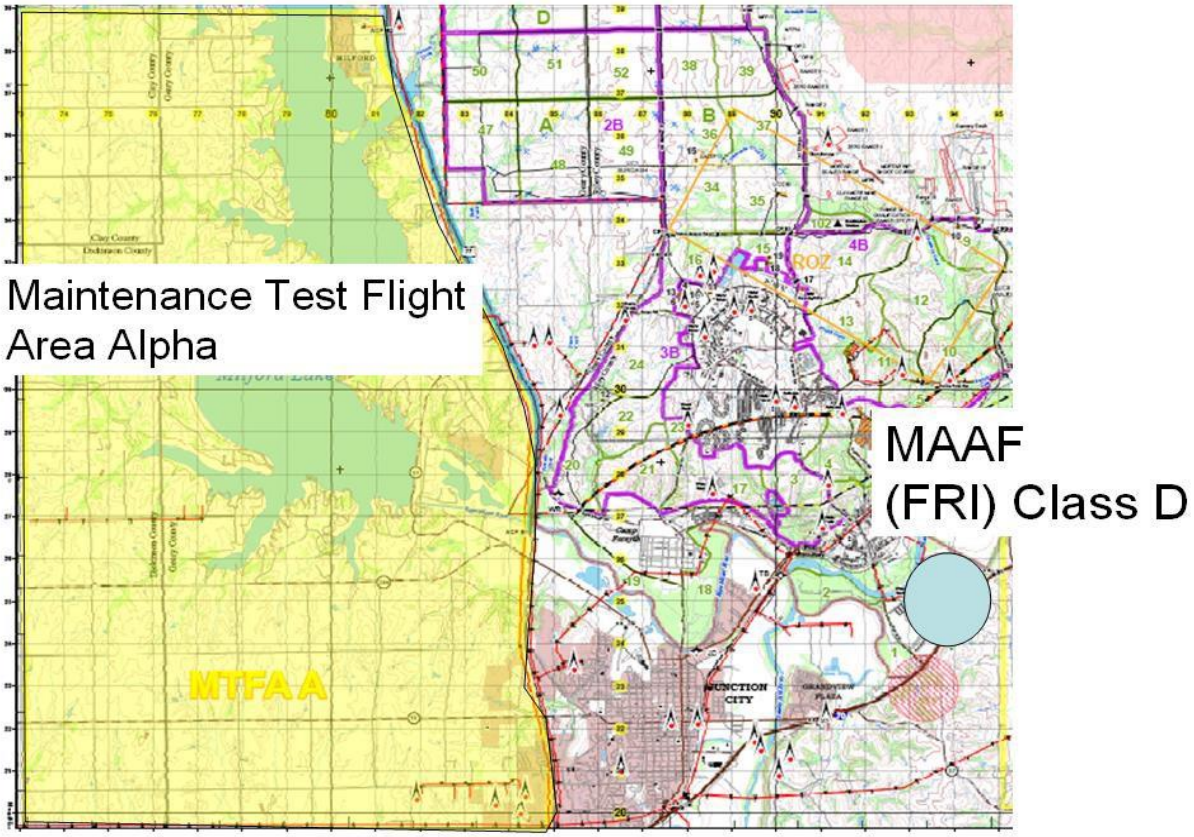


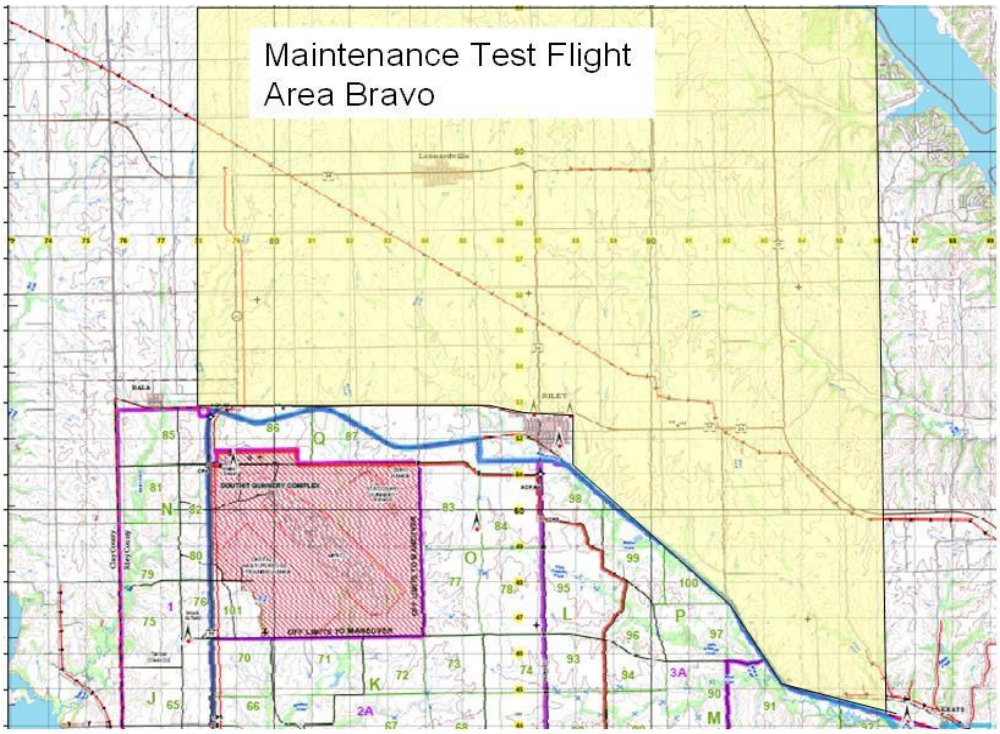
**APPENDIX H**
**UAS ROZ LOCATIONS**



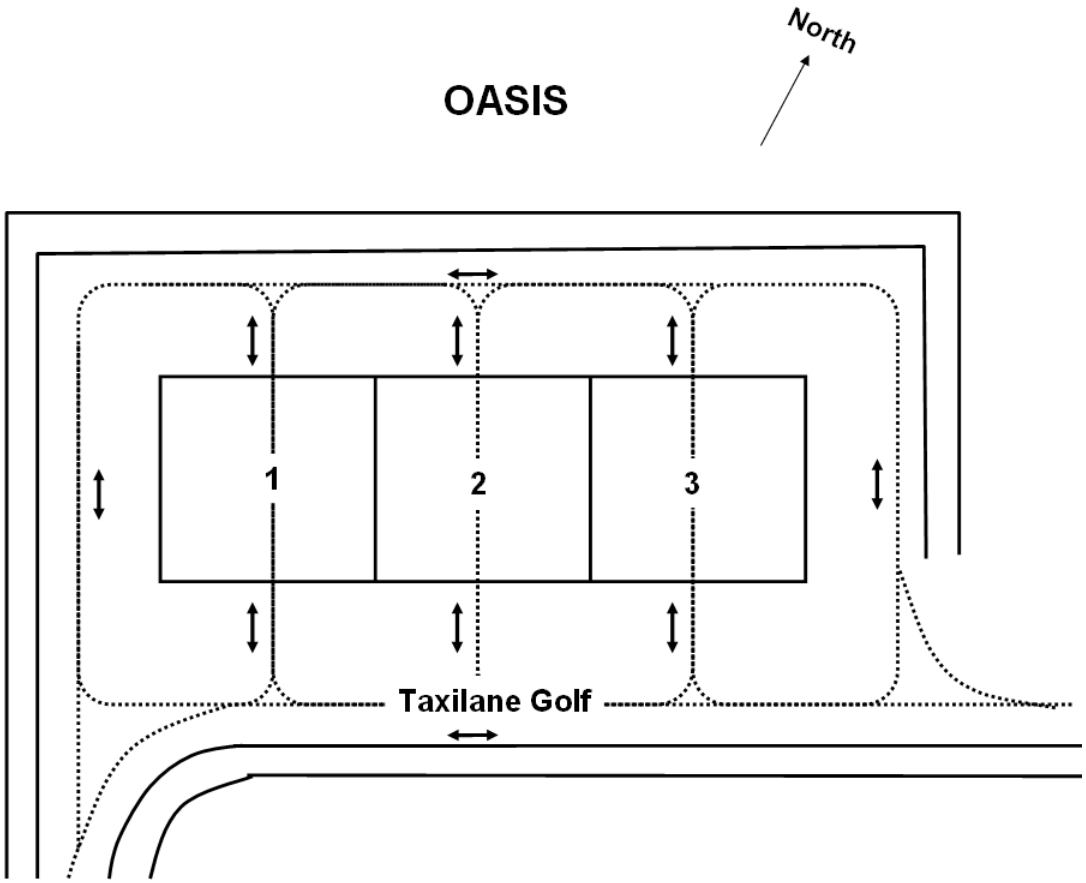

| MILFORD ROZ | RILEY ROZ | CUSTER HILL ROZ |
|---|---|---|
| 14S PJ 7590 –4800 | 14S PJ 90677 –34174 | 14S PJ 8760 –3380 |
| 14S PJ 7835 –4800 | 14S PJ 90603 –36365 | 14S PJ 8906 –3663 |
| 14S PJ 7845 –4200 | 14S PJ 89209 –38434 | 14S PJ 9510 –3290 |
| 14S PJ 7600 –4200 | 14S PJ 89078 –41053 | 14S PJ 9343 –3020 |
| | 14S PJ 85388 –41000 | |
| | 14S PJ 85300 –34500 | |
| | 14S PJ 87400 –34500 | |
| | 14S PJ 87600 –34100 | |

**APPENDIX I**
**MAINTENANCE TEST FLIGHT AREAS**



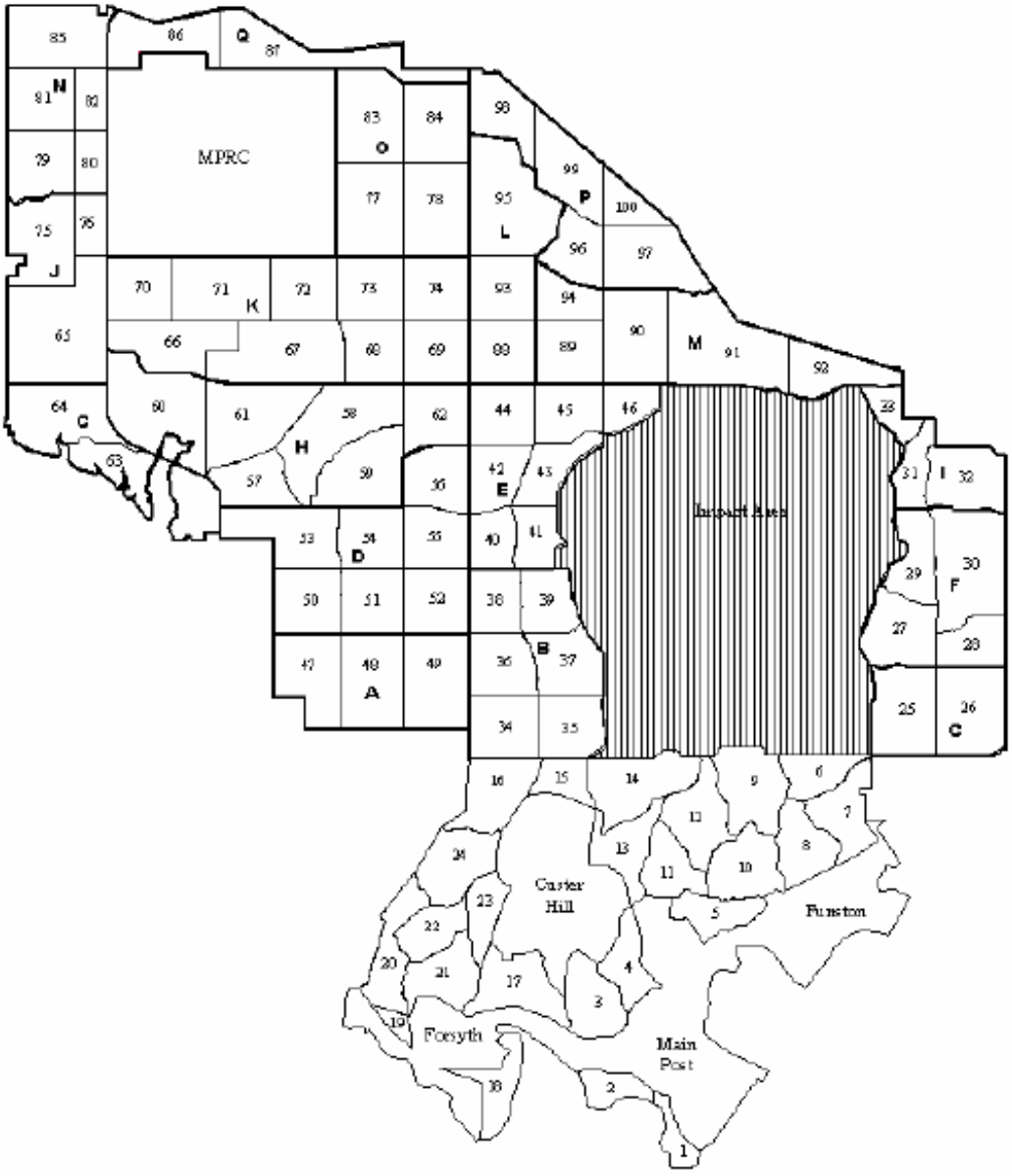
**APPENDIX J**
**OASIS REFUEL DIAGRAM**



**APPENDIX K**
**MORTAR AND SMALL ARMS IMPACT AREA & MPRC DANGER AREA**

## MORTAR AND SMALL ARMS IMPACT AREA

No access authorized without approval from Range Support.

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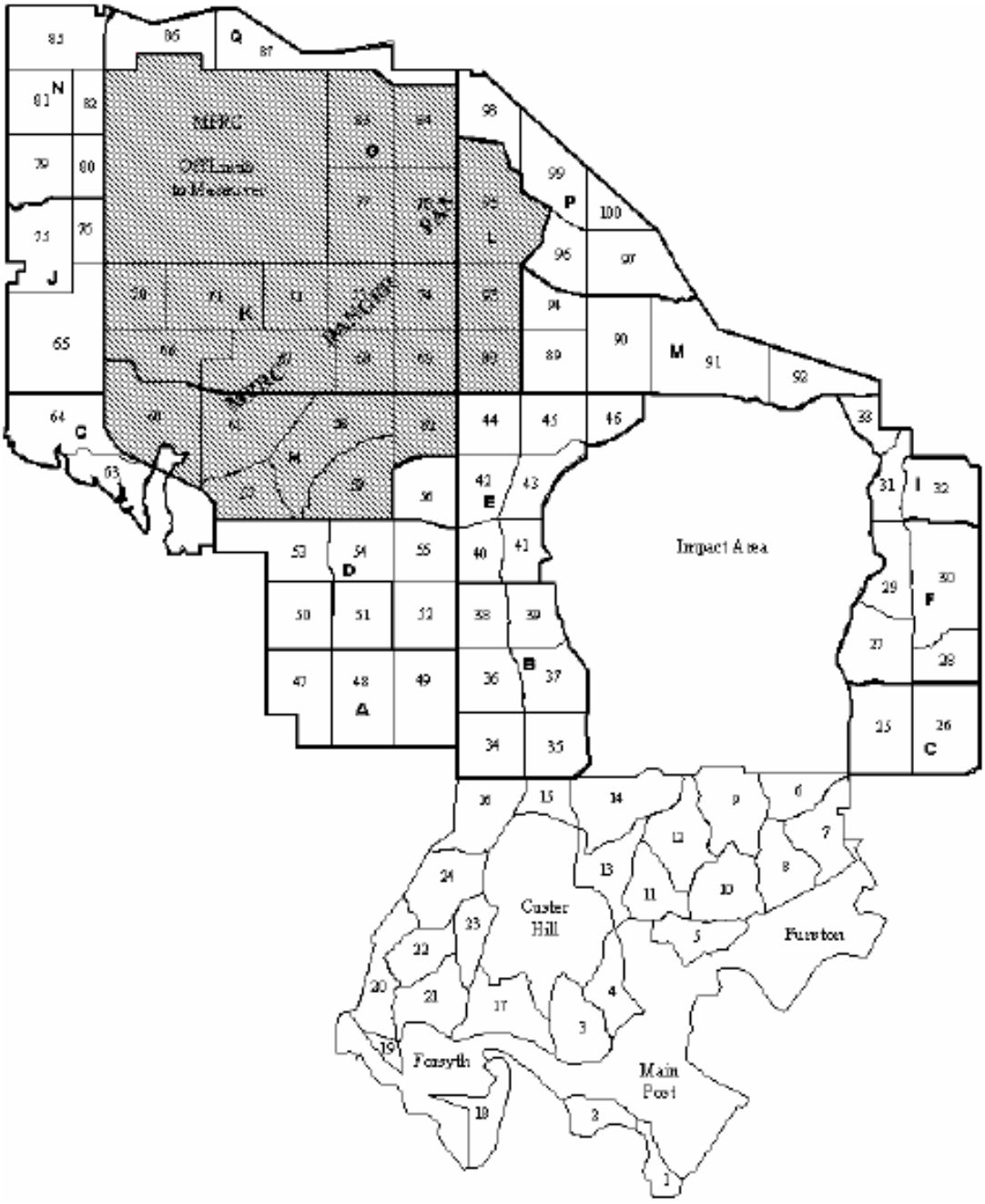
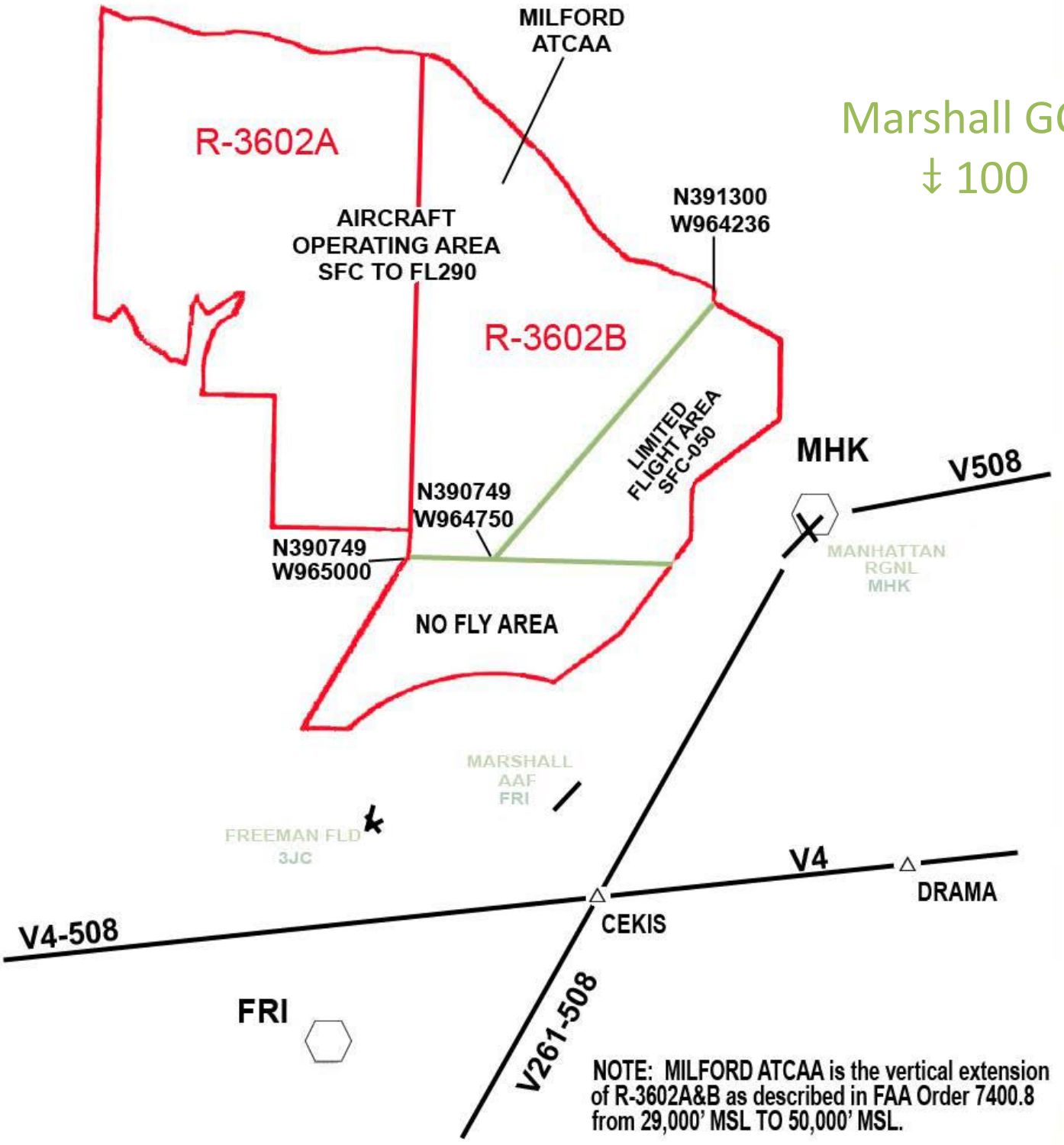
**APPENDIX K (cont.)**
**MPRC DANGER AREA**

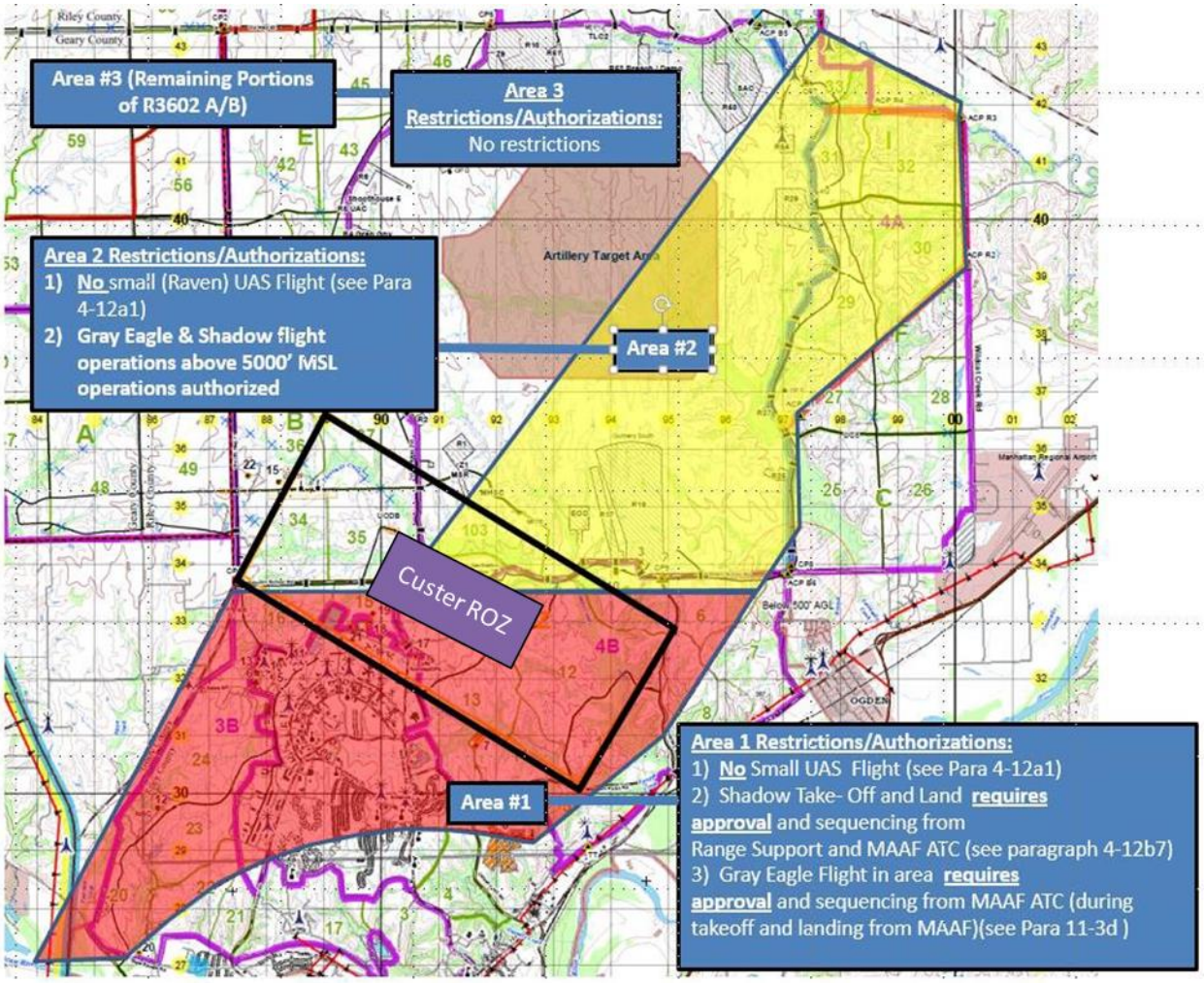


**APPENDIX L**
**LIMITED USE AREAS of R3602**

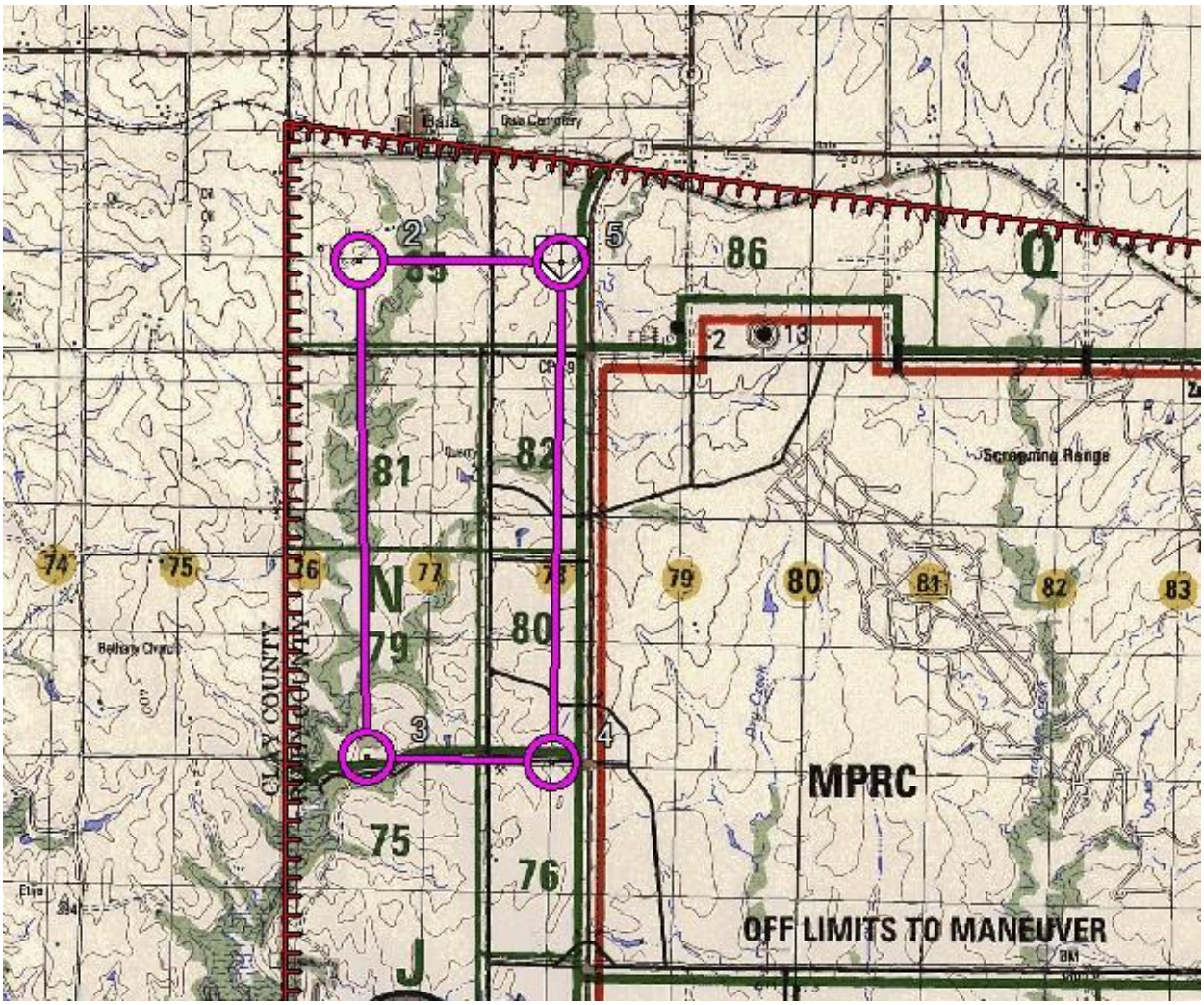



Marshall GCA
↧ 100

**APPENDIX M**
**R3602 UAS OPERATING AREAS**

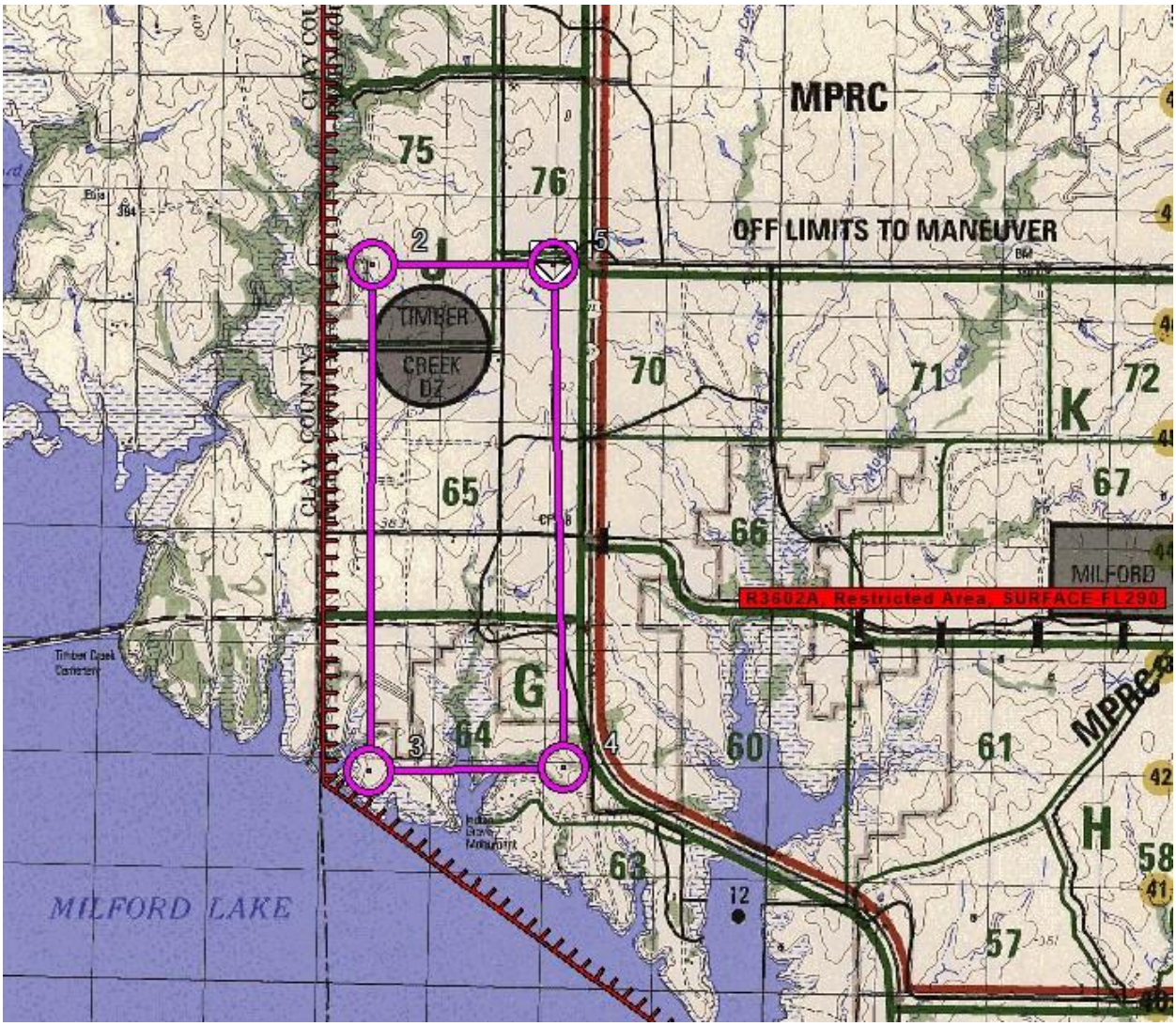


**APPENDIX N**
**HOLDING ZONE 1 (MINIMUM ALTITUDE 3500 feet MSL)**




**(cont. next page)**

**APPENDIX N (cont.)**
**HOLDING ZONE 2 (MINIMUM ALTITUDE 4000 feet MSL)**

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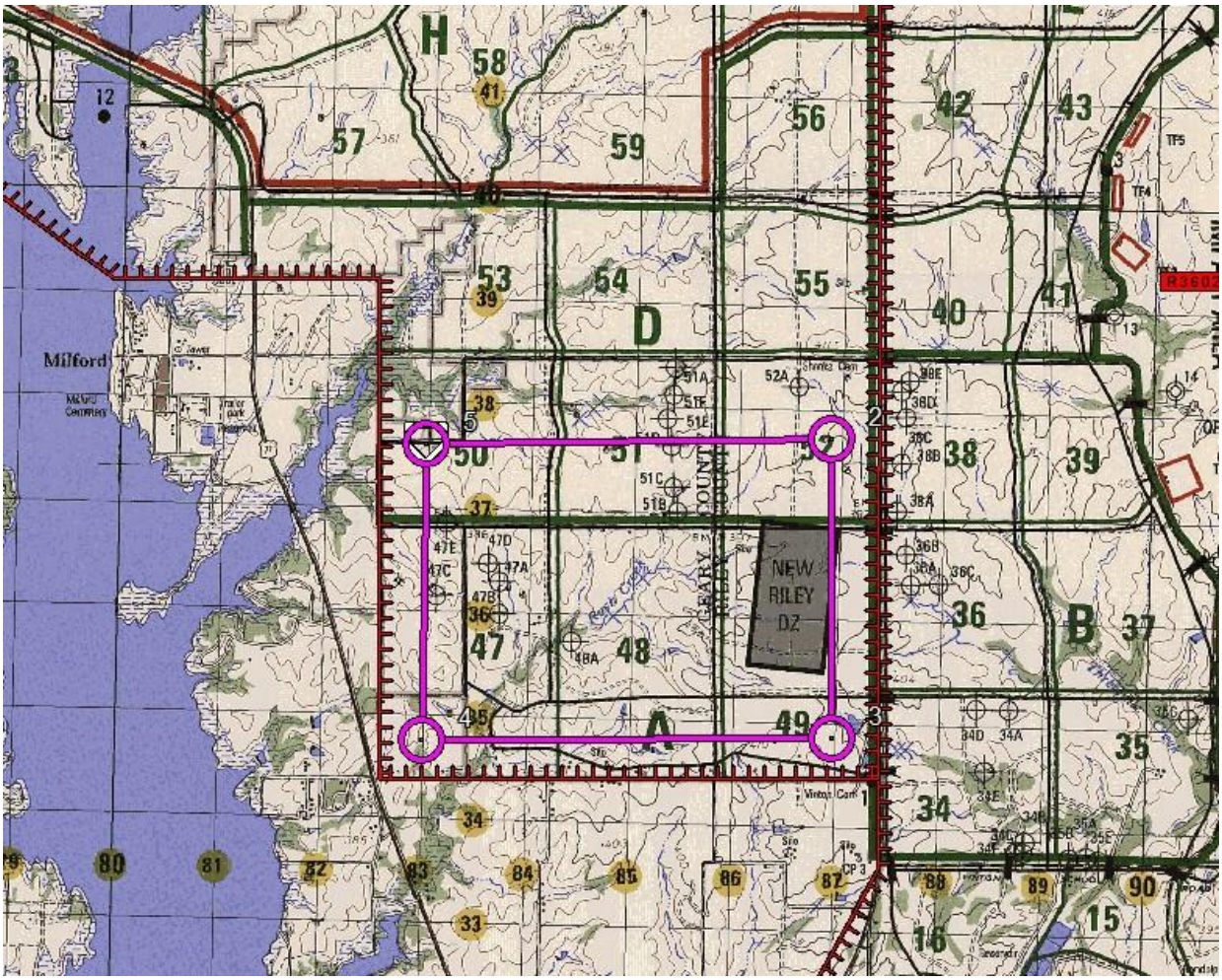
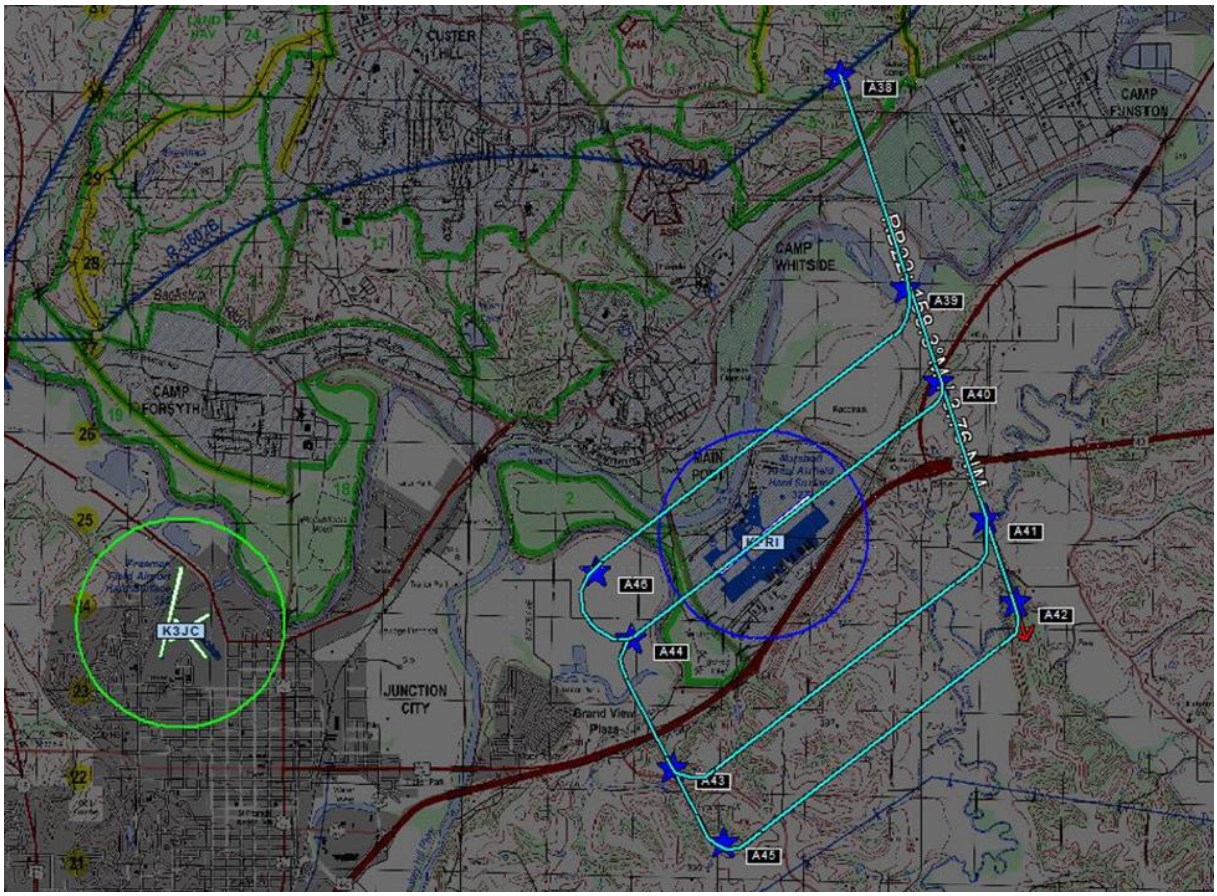
**APPENDIX N (cont.)**
**HOLDING ZONE 3 (MINIMUM ALTITUDE 3500 feet MSL)**



**APPENDIX O**
**GRAY EAGLE FLIGHT ROUTING**




| Icon | ID | Location | | | |
|---|---|---|---|---|---|
| ★ | A38 | 14S | PJ | 94207 | 30382 |
| ★ | A39 | 14S | PJ | 95040 | 27914 |
| ★ | A40 | 14S | PJ | 95448 | 26826 |
| ★ | A41 | 14S | PJ | 96040 | 25232 |
| ★ | A42 | 14S | PJ | 96415 | 24262 |
| ★ | A43 | 14S | PJ | 92452 | 22227 |
| ★ | A44 | 14S | PJ | 91924 | 23732 |
| ★ | A45 | 14S | PJ | 93067 | 21373 |
| ★ | A46 | 14S | PJ | 91492 | 24505 |

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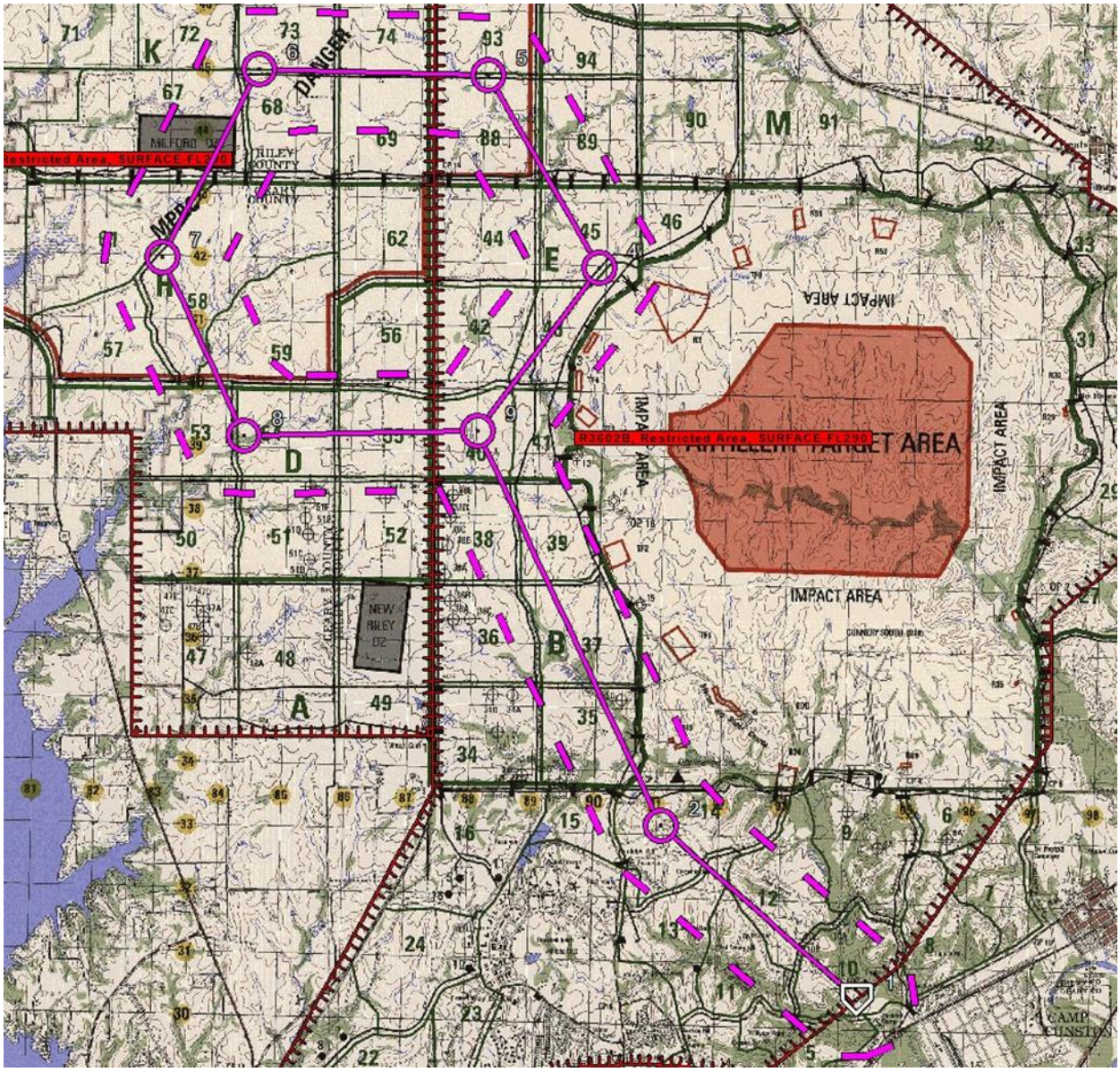
**APPENDIX O (cont.)**
**GRAY EAGLE FLIGHT ROUTING**
**WARRIOR ROZ & EMERGENCY MISSION/CLIMB & DESCENT (EMCD) AREA**



**APPENDIX P**

# MAAF BASE OPERATIONS EMAILING FLIGHT PLAN INSTRUCTIONS (V2.0 19 FEB 20)

MAAF Operations receives flight plans from any Unit/PC via email, FAX, or in person. FAX or in person will be used during network lapses or other email issues.

Please follow the instructions carefully.

If you have questions contact the Airfield Operations Officer- Mr. Kelly Gulker at 239-8498.

## INSTRUCTIONS for EMAIL USERS:

1. Email your flight plan as early as your mission timeline allows to ensure processing.

2. Use a fillable PDF Flight plan. (Note- for IFR flight plans requiring a R , hold down the "Alt" key and enter 0174.)

3. Place a number the pilot can be reached in the remarks section of the DD Form 175. If there are issues that require resolving with content, Base Operations will call the pilot directly.

4. **Ensure you digitally sign your flight plan.** Attach it to your email. (If your flight plan is not signed, MAAF will call to resolve, you will be required to send another email with new, signed attachment.)

5. In the Subject line format: Call sign – Date -

Unit (Example: "R16266 17 Oct 3-1 AVN")

6. Do not include text in the email, it will not be read, or "replied to" by MAAF Operations Personnel.

**7. Request a read receipt, under "options tab", "tracking", "request a read receipt".**

**(If you do not receive a read receipt message, you have no flight plan in operations. A flight plan is required IAW AR 95-1 para 5-2d.). You should receive a read receipt shortly after filing. If you have no flight plan you will be advised by ATC or Base Operations on initial call up you have no flight plan. No Read Reciept message is an indicator the email program, computer or network is not functioning. Please do not call operations to check on the status of your flight plan, a read receipt with no call from operations is your indication your flight plan is received.**

Email your flight plan to: (please cut & paste, there are numerous "like" mailboxes):
usarmy.riley.imcom-central.mbx.dptms-airfield-operations@mail.mil

## REFERENCES

AOD Physical Security SOP
AR 95-1
Flight Regulations.
AR 95-27
Operational Procedures for Aircraft Carrying Hazardous Materials.
AR 385-40
Accident Reporting and Records.
ATP 4-43
Petroleum Supply Operations
DA Form 2397-AB
Abbreviated Aviation Accident Report
FAR 91
Federal Aviation Regulation, Part 91.
FORSCOM REG 385-1
Forces Command Safety Program.
FORSCOM REG 350-3
Specialized Training in FORSCOM Active Army and Reserve Component Units.
FORSCOM Supplement 1 to AR 95-1
Aviation Flight Regulation. Fort Riley Limited Use Helicopter Landing Zone (LUHLS)
FR PAM 95-1
Pre-Accident Plan
FR PAM 95-2
Search and Rescue.
FR REG 385-1
Fort Riley Safety Program
FR REG 385-12
Range and Training Safety
TM 1-1500-250-23
General Tie down and Mooring on all Series Army Models.
AR 25-400-2
The Army Records Information Management System (ARIMS)
AR 95-2
Air Traffic Control, Airfield/Heliport, and Airspace Operations
AR 385-10
Army Safety Program
Related Forms DD Form 1801/1801-C
Military Flight Plan.
DD Form 175-1
Flight Weather Briefing.

## GLOSSARY

**3JC** Junction City Airport (Freeman Field)
**A** Alternate
**ACP** Air Coordination Point
**AGL** Above Ground Level
**AIC** Airspace Information Center
**ARS** Air Route Structure.
**ASOS** Air Support Operations Squadron
**AT&A** Air Traffic and Airspace
**ATC** Air Traffic Control
**ATCT** Air Traffic Control Tower
**ATM** Aircrew Training Manual
**CAB** Combat Aviation Brigade, 1st Infantry Division
**CABSO** Combat Aviation Brigade Standardization Officer
**CAS** Close Air Support
**COA** Certificate of Authorization
**DMPRC** Digital Multi-Purpose Range Complex
**DMPTR** Digital Multi-Purpose Training Range
**DOD** Department of Defense
**EMCD** Emergency Mission Climb and Descent
**ER** Emergency Room
**ETE** Estimated Time Enroute
**FAA** Federal Aviation Administration
**FAC** Forward Air Controller
**FAR** Federal Aviation Regulations
**FARP** Forward Arming Refueling Point
**FAS** Flight Advisory Service
**FLIP** Flight Information Publication
**FM** Frequency Modulated
**FORSCOM** United States Army Forces Command
**FR** Fort Riley
**FRLFR** Fort Riley Local Flight Rules
**FSS** Flight Service Station
**FU** Checkpoint Funston
**FW** Fixed Wing
**FWA** Forecast Weather Advisory
**GCA** Ground Control Approach
**GP** General Planning
**GTL** Gun Target Line
**IACH** Irwin Army Community Hospital
**IAW** In Accordance With
**IE** Instrument Examiner
**IFR** Instrument Flight Rules
**II** Checkpoint US 77 & I-70 interchange
**IIMC** Inadvertent Instrument Meteorological Conditions
**IMC** Instrument Meteorological Conditions

**IP** Instructor Pilot
**IP** Initial Point
**JAAT** Joint Air Attack Team
**LFA** Local Flight Area
**LUHLS**- Limited Use Helicopter Landing Site
**LZ** Landing Zone
**MAAF** Marshall Army Airfield
**ME** Medical Examiner
**MEF** Mission Execution Forecast
**MEDEVAC** Medical Evacuation
**MGRS** Military Grid Reference System
**MHK** Manhattan Airport
**MTP** Maintenance Test Pilot
**MPRC** Multi-Purpose Range Complex
**MSC** Major Subordinate Command
**MSL** Mean Sea Level
**MTF** Maintenance Test Flight
**NAS** National Airspace System
**NM** Nautical Mile
**NOTAM** Notice to Airmen
**OHR** Operational Hazard Report
**OPLAN** Operation Plan
**OWA** Observed Weather Advisory
**P** Primary
**PC** Pilot in Command
**PPR** Prior Permission Required
**R3602** Restricted Area 3602 A& B
**ROA** Remotely Operated Aircraft
**RON** Remain Overnight
**ROZ** Restricted Operation Zone
**RW** Rotary Wing
**SAR** Search and Rescue
**SFTS** Synthetic Flight Training Simulator
**SOP** Standard Operating Procedure
**SP** Standardization Pilot
**SR** Sunrise
**SS** Sunset
**SUA** Sole Use Airspace
**SUAS** Small Unmanned Aerial Vehicle
**SVFR** Special Visual Flight Rules
**TA** Training Area
**TAA** Tactical Assembly Area
**TB** Checkpoint Twin Bridges
**TG** Checkpoint Trooper Gate

**TT** Checkpoint Twin Tanks
**TUAS** Tactical Unmanned Aerial System
**UAS** Unmanned Aircraft Systems
**UHF** Ultra High Frequency
**UT** Unit Trainer.
**USAF** United States Air Force
**UTC** Universal Coordinated Time
**VFR** Visual Flight Rules
**VHF** Very High Frequency
**VIP** Very Important Person
**VMC** Visual Meteorological Conditions
**WA** Weather Advisory
**WW** Weather Warning
**Z** Zulu time or UTC