SUMMARY of CHANGE

Minnesota Army National Guard
CRTC Aviation Procedures Guide

5 February 2018–

- 1-3e: Pilot in Command responsibilities updated to reflect wildlife strikes
- 2-1a: Removed Brainerd VOR information
- 2-1h(3): R-4301 Air to Air frequency 242.2 UHF added
- 2-1i: Removed Brainerd VOR information
- 2-4a: Updated CALP requirements
- 2-6: Updated Noise Abatement to reflect 2017 policy
- 2-7d: Removed Range Control from list of contacts for R4301 information
- 2-10: Added X-9A
- 3-2: Updated PPR process
- 3-5: Inserted Figure 3-1 VFR Weather Minimums
- 3-7c: Civilian aircraft mooring responsibilities
- 3-14: Inserted Figure 3-3: Hazardous Cargo Area
- 3-16: Updated Terrain Flight procedures
- 3-18d: Added MHE request for internal loads
- 3-19: Expanded Aerial Gunnery Operation requirements
- 3-21: Included Hoist Operations
- 4-1: Updated to incorporate CRTC UAS Policy
- 4-2: Added AT&A Officer/Airfield Manager in COA process
- 4-5: Updated reference
- 7-2: Updated reference
Aviation

Camp Ripley Training Center Aviation Procedures Guide

By Order of the Adjutant General:

JON A. JENSEN
Major General, MNARNG
The Adjutant General

Official:

BRIAN J. MELTON
Colonel, MNARNG
Garrison Commander

History. This new publication replaces Camp Ripley 95-1 and Camp Ripley Tactical Training Center SUAS/UAS Standard Operating Procedure. Future revisions to this publication will be noted on the summary of change page.

Summary. This procedures guide covers manned aircraft operations, unmanned aircraft operations, crew requirements, flight training and airfield operations procedures for Camp Ripley and R-4301 Special Use Airspace.

Applicability. This pamphlet applies to all Minnesota Army National Guard organizations and all other military and civilian organizations operating in or about the Camp Ripley Restricted Area R-4301 and Miller Army Airfield.

Army management control process. This publication does not contain management control provision.

Supplementation. Supplementation of this publication and establishment of command and local forms are prohibited without prior written approval from the Camp Ripley Garrison Commander’s office.

Proponent. The proponent for this document is the Miller Army Airfield Commander at Camp Ripley.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Miller AAF Commander (NGMN-CRO-A), Building 8-197, 15000 Hwy 115, Little Falls, MN 56345.

Distribution. This publication is available in electronic media only and is intended for all command levels within the Minnesota Army National Guard and transient Aviation units training at the Camp Ripley Training Center.

*This publication replaces CR 95-1 and Camp Ripley Tactical Training Center SUAS/UAS Standard Operating Procedure.
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Chapter 1
General Overview

1–1. Purpose
This Aviation Procedures Guide establishes administrative, operational and safety procedures for all aircraft operations at Camp Ripley Training Center (CRTC), Minnesota, and prescribes local implementation instructions for operations at Ray S. Miller Army Airfield (MAAF) and Restricted Airspace R-4301 covering Federal Aviation Regulations (FARs) and the Army Regulation (AR) 95-series.

1–2. References
Referenced publications are listed in Appendix A of this publication.

1–3. Responsibilities
a. Miller Army Airfield Commander
   (1) The Miller AAF Commander is responsible to the Camp Ripley Senior Commander for the following actions.
      (a) Ensuring compliance with the policies and procedures set forth.
      (b) Serving as an aviation liaison between using units and the Garrison Commander.
      (c) Reviewing/reporting matters affecting Aviation Safety/Operations at Camp Ripley.
      (d) Directing the Aviation Site Support section to support and assist units in training at Camp Ripley.
   b. Air Traffic and Airspace (AT&T) Officer
      (1) Manages the Camp Ripley Restricted Airspace (R-4301) and MAAF airspace.
      (2) Represents the Camp Ripley Military Installation Command Group on matter pertaining to the National Airspace System.
      (3) Responsible for preparation of notices, proposals, comments and reports on airspace and aviation procedures for the command.
   c. Miller Army Airfield Operations
      (1) Coordinates airspace activities with the Airfield Manager, Camp Ripley Operations group, Range Control and other airspace management agencies.
      (2) Processes Prior Permission Requests (PPR) for all operations at MAAF and R-4301.
   d. Aviation Unit Commanders
      (1) Attending or sending a designated representative to the daily range brief to establish direct communication and de-confliction with other units utilizing CRTC and R-4301.
      (2) MNARNG units must submit requests for facilities, training areas, and airspace through Range Facility Management Scheduling System (RFMSS) in accordance with the Camp Ripley Regulation prior to arrival. This request shall specify the number and type of aircraft to be supported along with any special requests. Missions requested on the day of or single day missions must be coordinated through MAAF Operations for RFMSS entry and coordination.
      (3) Non-MNARNG units without RFMSS access shall submit a completed CRTC ATS Form 23 requesting facilities, training areas, and airspace in accordance with Camp Ripley Range Regulation 2018 prior to arrival. This request shall specify the number and type of aircraft to be supported, any special requests and the date and time requested for the MAAF safety briefing. Same day requests must be coordinated through MAAF Operations for RFMSS entry and coordination.
      (4) Ensuring all aviation units training on Camp Ripley receive an annual briefing on this guide. Briefings are given by the Airfield Commander or a designated representative to the unit or a designated unit trainer. The briefing must include information on restricted areas, flight following procedures, safety and airfield facilities. Units that have received the brief will be allowed to operate at Camp Ripley.
      (5) Ensuring unit compliance with the applicable portions of the MAAF Physical Security Plan contained in Chapter 7 of this publication.
(6) Aviation units utilizing an Air Traffic Services facility while operating at MAAF or in the R-4301 restricted airspace will coordinate a Letter of Agreement (LOA) with Miller Army Airfield prior to conducting training or operation.

   e. Pilot in Command

   (1) Aviators are responsible for the strict adherence to the policies set forth in this guide. The Aviator is the basic element regarding aircraft accident prevention. Aviator duties are as follows:

      (a) Comply with flight regulations and safe operating practices during all flight and ground operations within MAAF and R-4301.

      (b) Report hazards and safety-related issues to MAAF flight operations.

      (c) Current copy of the CRTC Hazard map and range bulletin must be in the aircraft.

      (d) Report wildlife aircraft strikes IAW Camp Ripley WASH plan.

1-4. Authority and final decisions

The Senior Commander or their authorized representative, unless otherwise stated in this publication, has authority for final decisions on aviation operations on Camp Ripley Restricted Airspace (R-4301), designated military training areas and Ray S. Miller Army Airfield.

1-5. Exception to policy

This guide is not intended to limit the tenant unit training activity. The procedures should not conflict with the way the units operate, units should be able to adhere to the procedures listed here and still meet all requirements in the individual unit SOPs. Conflicts with this guide affecting unit training may be resolved through appropriate letters of agreement between MAAF Operations and tenant unit authority.

1-6. Waivers

Process waiver request in accordance with United States Army Forces Command (FORSCOM) Supplement to AR 95-23 (Unmanned Aircraft Systems [UAS] Flight Regulations).

   a. Units will send waiver requests to the CRTC Air Traffic and Airspace Officer (AT&A).

   b. Waivers will be available for aviation resource management survey review.

1-7. Deviations

All proposed deviations from this regulation, due to unique training requirements, must be requested in writing to the Airfield Commander NLT 72 hours of the proposed activity. All alleged flight violation are reported in accordance with AR 95-1.

1-8. Distances and altitudes

All distances and altitudes are expressed throughout this publication are in feet (ft), meters (m), kilometers (km), statute miles (sm), nautical miles (nm), or flight levels (FL).

Chapter 2

Miller AAF and Special Use Airspace R-4301

2-1. Ray S. Miller Army Airfield Information

   a. Coordinates. Miller AAF is located at coordinates 46 05' 28.331" North, 94 21' 37.939" West. It is displayed on the Twin Cities Sectional Aeronautical Chart.


   c. Location Identifier: KRYM

   d. Airspace

      (1) Class D - Tower open

      (2) Class E – Advisory services only/Tower closed

      (3) Class G – Tower closed (surface – 700’ AGL)
(4) Class D/E Dimensions: From surface up to and including 3,700 feet MSL, 3.9 NM radius from MAAF.

e. Field Elevation: 1152 feet.

f. Runways
   (1) 31R-13L, 6100 ft. x 100 ft asphalt runway with a 900 ft. unsurfaced overrun for runway 31R.
   (2) 312L-132R, 3500 ft. x 80 ft Tactical Assault Strip paralleling main runway.
   (3) 155/335, 1075 ft x 50 ft, Unmanned Aerial Systems (UAS) runway.

g. Runway lighting. Pilots may control runway lighting when the Tower is closed. MAAF personnel, upon request, can control airfield lighting for Night Vision Devices (NVD) compatibility.

h. Traffic pattern altitude. Listed below are recommended traffic pattern altitudes. They are not intended to restrict training or interfere with the pilot’s responsibility to maintain adequate VFR cloud clearance in accordance with FAR 91-105.
   (1) Fixed Wing (FW) all categories - 2700’ MSL
   (2) Rotary Wing (RW) traffic - 1850’ MSL (700’ AGL)
   (3) Overhead Procedure - 3200’ MSL

i. Navigational aids
   (1) Camp Ripley NDB (XCR) 404
   (2) I-RYM Localizer 111.1

j. ATC Frequencies
   (1) MAAF Tower provides ATC service on frequencies 126.2 VHF, 254.4 UHF and 46.7 FM. The MAAF Tower also monitors emergency frequencies 121.5 VHF and 243.0 UHF.
   (2) MAAF Operations may be contacted on 41.5 FM. When ATC is not available, aviators must broadcast their intentions in the blind on MAAF Tower frequencies (CTAF).
   (3) R-4301 Air to Air frequency is 242.2 UHF is available.

k. Helipads. MAAF has two parking pads on the ramp and nineteen parking pads for helicopters. Refer to Appendix C for the Airfield Diagram.

l. Tower/Advisory Services. These services are available on Mondays 0700-1700 CST. ATC is available Tuesday through Thursday 1300-2230 CST and Friday 0800-1730 CST. Advisory services provided for all other time periods. Request for days or hours outside the normal schedule may be available with prior coordination (PPR).

2–2. Petroleum, Oil and Lubricants (POL)
Any aircraft requiring fuel must give 48 hour advance notice to Miller Operations and obtain a PPR. Number. Miller Operations can be reached at (320) 616-2779 or email at ng.mn.mnarng.mbxcrc-airfield@mail.mil.

2–3. Crash Fire Rescue (CFR)
   a. Camp Ripley Crash Fire Rescue is operational five days per week, in ten hour shifts. Requests for CFR must be received at least 15 days prior. All requests within the 15 day window may be supported based on availability of crews, priority of the flight mission and other preapproved missions.
   b. Crash Fire Rescue scheduling priorities are as follows:
      (1) VIP flights
      (2) Camp Ripley Operations
      (3) Fixed wing training flights
      (4) Rotary wing training flights
   c. Crash Fire Rescue must maintain radio communication with MAAF tower at all times when the tower is open. The communication will be on 800 MHZ talk group FIREADM, or VHF 126.200 if unit does not have 800 MHZ capability.
   d. Camp Ripley Crash Fire Rescue has the following extinguishing agents for aircraft emergency response.
(1) 1500 pounds of Dry chemical with a back-up supply in storage
(2) 4260 Gallons of Water onboard apparatus
(3) 530 Gallons of Foam with a back-up supply on hand
e. Minimum staffing levels for CFR support are as follows.
   (1) VIP flights: will be 6 firefighters
   (2) Fixed wing training flights: 4 firefighters
   (3) Rotary wing training flights: 4 firefighters (when scheduled concurrently with other airfield flight activities)
   (4) The staffing level status must be reported to MAAF tower anytime the staffing level changes.
   f. MAAF has nine (9) Special K fire extinguishers available for flight line usage. Fire extinguisher usage will be one Special K for every two CH-47 or three UH-60 aircraft. Units are required to provide additional extinguishers if the number of aircraft exceed the airfield’s capabilities.

2–4. Civilian Aircraft
   a. Civilian aircraft must have a Prior Permission Request (PPR) number before landing at MAAF. MAAF personnel will only issue a PPR number when applicable provisions of AR 95-2 have been met and a signed copy of the Civilian Authorization to Land Permit (CALP) is on file.
   b. All pilots of civilian aircraft will report to the airfield operations building after landing.
   c. Touch and go landings by civilian aircraft shall not be authorized.
   d. Aircraft fuel and services are not available for civilian aircraft.
   e. Military aircraft have priority for use of the parking apron. Civilian aircraft may use the parking apron when authorized by MAAF Operations during times when their presence will not interfere with scheduled military operations. Civilian aircraft parking for extended periods will utilize the designated sod parking area.

2–5. Local Flying Area
   a. The local flying area for Camp Ripley is the area enclosed within the following boundaries: from Princeton, north on US Highway 169 to Hill City, then west on MN Highway 200 to Walker, continue west on MN Highway 34 to Park Rapids then south on US Highway 71 to Wadena and southwest on MN Highway 29 to Glenwood. Proceed southeast on MN Highway 55 to Paynesville and east on MN Highway 23 to St. Cloud and continue east on MN Highway 95 to Princeton.
   b. Figure 2-1 depicting the local flying area is found on page 5.
   c. The following airfields are considered to be within the local flying area.
      (1) Aitkin (AIT) Municipal Airport
      (2) Alexandria (AXN) Chandler Field
      (3) Brainerd (BRD) Crow Wing County Airport
      (4) Little Falls (LXL) (restricted from training use)
      (5) Park Rapids (PKD) Municipal Airport
      (6) Princeton (PNM) Municipal Airport
      (7) St. Cloud (STC) Regional Airport

2–6. Noise Abatement Policy
   a. Current noise abatement policy is "military aircraft will remain clear to the greatest extent possible of populated areas (depicted on VFR aeronautical charts as yellow boxes) at altitudes lower than 1500ft Above Ground Level (AGL)."
   b. Please reference Figure 2-2 found on page 6.
   c. The following noise sensitive areas should be avoided whenever possible:
      (1) Garrison Headquarters building 11-1 and VIP Quarters (Valhalla).
      (2) Area Towns and Cities: Little Falls, Randall, Fort Ripley, Pillager, Baxter, and Cushing.
(3) Area Lake Communities: Green Prairie Fish Lake, Lake Alexander, Crow Wing Lake, Round Lake, Three Fingers Lake, and the Baxter/Brainerd Lakes Area.

(4) River Boundaries: Mississippi River (Little Falls, MN to Camp Ripley’s Northeast Corner) and Crow Wing River (Pillager to Camp Ripley’s Northeast Corner).

(5) Local Poultry Farms (North West of Camp Ripley)

Figure 2-2, Noise Sensitive Locations
2–7. Special Use Airspace (SUA): R-4301

a. Camp Ripley SUA consist of a single restricted area 4301 (R-4301) from the surface up to 27,000 feet MSL as published in Federal Aviation Administration (FAA) Joint Order (JO) 7400.8. Refer to Table 2-1 on page 8 for R-4301 boundaries defined by MGRS.

b. Manned aircraft will use a transponder code series 1200, in accordance with DoD Flight Information Handbook (FIH) when operating in the restricted areas, unless FAA ATC has assigned a different code. Unmanned aircraft will use transponder code as assigned by the controlling authority.

c. Aircraft will not enter R-4301 unless radio contact has been established with Miller Tower or MAAF Operations and approval is received.

d. Prior to entering R-4301 aviators must know all current information concerning ranges, firing points, and ROZ locations. All aviators will receive critical information from MAAF Tower or MAAF Operations.
e. Pilot in Command will receive current range information regarding “hot” ranges. If an aircraft departs R-4301 and returns or is shutdown within R-4301 the aviator must re-establish contact to get updated range information.

f. Aircraft Density in R-4301 will be limited to 6 separate flight operations at any given time. A flight operation may consist of:
   (1) One individual aircraft.
   (2) A formation of aircraft (under the control of 1 AMC).
   (3) Exceptions to this policy may be granted, but must be approved by the MAAF Commander, AT&A Officer or ATC after appropriate risk assessment is completed and approved IAW AR 95-1.

g. The boundaries of aviation training areas vary depending upon whether or not Class D airspace is in effect. Aviation training areas in R-4301 are defined as:
   (1) Class D airspace in operation. All training areas which lie outside of Class D airspace. The Class D airspace is depicted on Aviation training maps available at MAAF Operations. Training areas 1-16 and portions of 17, 24, 26 & 28 are considered within Class D.
   (2) No Class D airspace: All training areas 1-80 are open to training. These training areas start outside of cantonment, north of Argonne Road and west of Fort Ripley Road.

R-4301 Boundaries

<table>
<thead>
<tr>
<th>MGRS</th>
<th>Lat/Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>15T UM 857302</td>
<td>46° 18' 56.65&quot; N 94° 29' 04.57&quot; W</td>
</tr>
<tr>
<td>15T UM 844290</td>
<td>46° 18' 16.99&quot; N 94° 30' 04.27&quot; W</td>
</tr>
<tr>
<td>15T UM 841098</td>
<td>46° 07' 54.94&quot; N 94° 30' 01.32&quot; W</td>
</tr>
<tr>
<td>15T UM 892098</td>
<td>46° 07' 57.99&quot; N 94° 26' 03.72&quot; W</td>
</tr>
<tr>
<td>15T UM 892095</td>
<td>46° 07' 48.28&quot; N 94° 26' 03.47&quot; W</td>
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<tr>
<td>15T UM 894095</td>
<td>46° 07' 48.39&quot; N 94° 25' 54.15&quot; W</td>
</tr>
<tr>
<td>15T UM 894063</td>
<td>46° 06' 04.74&quot; N 94° 25' 51.47&quot; W</td>
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<tr>
<td>15T UM 940068</td>
<td>46° 06' 23.57&quot; N 94° 22' 17.68&quot; W</td>
</tr>
<tr>
<td>15T UM 955068</td>
<td>46° 06' 24.40&quot; N 94° 21' 07.83&quot; W</td>
</tr>
</tbody>
</table>

| Eastern Boundary | Mississippi River |
| Northern Boundary | Crow Wing River |

**Designated altitudes** | **SFC-27,000 MSL**
---|---
**Designated times** | **0730-2400 *other times by DoD**

**NOTAM**

Table 2-1, Camp Ripley R-4301 Boundaries by MGRS

2–8. Flight Corridors

a. Aircraft transitioning from MAAF to points around R-4301 will use the designated flight corridors, ACPs and associated altitudes. These corridors provide 300 foot separation between low level flight training (1750' MSL and below), along with clockwise and counter clockwise traffic. Refer to Figure 2-4 on page 9.

b. A radio call to ATC must be made prior to entering or exiting a flight corridor. Should ATC be unavailable, a call ‘in the blind’ must be made on Miller AAF primary frequencies. Deviations from these altitudes may be granted by ATC upon request and it is determined safe to do so.
c. R-4301 Air to Air Frequency is UHF 242.2 and shall be utilized by all aircraft conducting training in the airspace to de-conflict and alert transient aircraft of take offs and landings to training areas.

   (1) Transitional flight corridors will generally follow the eastern and western reservation boundaries. These routes begin at ACP Brown (clockwise) or ACP Blue (counter-clockwise) depending upon direction, and terminate after entering Class D airspace. When Class D airspace is not in effect, the routes/altitudes terminate upon entering the traffic pattern.

   (2) Route Blue (counter clockwise) corridor.
      (a) Maintain altitude of 2400 feet MSL.

   (3) Route Brown (clockwise) corridor.
      (a) Maintain altitude of 2100 feet MSL.
      (b) Route: ACP Brown - Luzon Rd - Kodiak Rd - Ft. Greely Rd - Pusan Rd - East Boundary Rd - ACP Blue

2–9. Restricted Operating Zones (ROZ)
   a. There are three permanent ROZs within R-4301 to restrict or limit user access (when active).
      (1) CACTF/CTF
      (2) Center Range
      (3) Ripley Drop Zone
b. Temporary ROZs are established by Range Control to support specific operations on a case-by-case basis for UAS operations, ATC operations, and safety zones. A Temporary ROZ will be designated on the Range Control Bulletin.

c. Requesting units will coordinate temporary ROZ requests with Range Control and the AT&A Officer at least forty-eight (48) hours prior to requested activation via RFMSS. The AT&A Officer is the approving authority for all temporary ROZs. The request should include:

- (1) Requirement for a ROZ
- (2) Location
- (3) Lateral and vertical limits
- (4) Time period

d. The requesting unit is the controlling authority and activations (Hot) shall be coordinated through Range Control. Non-participating aircraft will remain clear until the restriction is rescinded or authorization is granted by the user of the ROZ Authorization to transit through the ROZ can be coordinated with the commander of the ROZ. Point of contact information is available from range control.

e. Maximum density in the ROZ:

- (1) Rotary Wing: No more than three aircraft operating separately without tactical ATS support.
- (2) UAS: No more than two UAS aloft in a ROZ at one time.

2–10. Improved Helicopter Landing Pads
The following are the grid coordinates and alphanumeric designations for improved helicopter landing pads within the confines of MAAF and R-4301.

- X1 15TUM 956052  X5A 15TUM 958271  X9A 15TUM 921085
- X2 15TUM 935088  X6 15TUM 882249  X10 15TUM 890133
- X2A 15TUM 922084  X6A 15TUM 884288  X10A 15TUM 902125
- X3 15TUM 937123  X7 15TUM 875219  X11 15TUM 898059
- X4 15TUM 924175  X8 15TUM 855162  X12A 15TUM 954064
- X5 15TUM 929227  X9 15TUM 869134

Chapter 3
Flight Regulations and Aircraft Operations

3–1. General

a. Annually, all Minnesota National Guard rotary wing, fixed wing and UAS operators are required an airspace safety brief to operate within the Camp Ripley R-4301 airspace. Units will coordinate with the MAAF Commander/Safety Officer to request the safety brief.

b. The Camp Ripley Range Control is the designated authority for the R-4301 Restricted Area and coordinates mission requirements to ensure optimum airspace utilization and safety.

3–2. Scheduling and Prior Permission Requests

a. All aircraft must have a Prior Permission Request (PPR) before landing at MAAF or entering R-4301.

b. PPR’s can be obtained prior to flight by calling flight operations at 320-616-2779 or DSN 871-2779. Aircraft may be asked to hold outside the airspace until coordination can be done to ensure the flight/request can be conducted safely and without interfering with other prescheduled activities.

c. DOD aircraft other than Army are required to complete a Letter of Agreement (LOA) with MAAF prior to conducting flight training on the airfield or within R-4301. Transient aircraft are not required to complete the LOA. Transient aircraft are considered to be; aircraft arriving to and departing MAAF for passenger or cargo operations only.
3–3. Flight Plans
   a. Pilots filing IFR flight plans or departing the local flying area VFR will file a DD 175 (Flight Plan) and DD 175-1 (Weather Brief) in accordance with the DOD FLIP. These flight plans will be maintained on file at MAAF Operations for 30 days.
   b. Processing of VFR flight plans shall be the responsibility of the tenant unit operations section, or MAAF Operations after necessary coordination has been made between the OIC of the tenant unit and the MAAF Operations officer.
   c. All transient pilots without an attending operations section must file local VFR flight plans through MAAF Operations.
   d. Army Aviators will ensure that all missions have been briefed and final approved in accordance with AR 95-1.
   e. Pilots will ensure that operations personnel accept any flight plan filed with MAAF Operations.

3–4. Instrument Clearance Procedures
   a. When MAAF Tower is operational, all Instrument Flight Rules (IFR) departure clearances will be requested through the Tower.
   b. When MAAF Tower is closed, IFR departure clearances may be obtained by contacting MAAF advisory on VHF 126.2 or telephone through the Flight Service Station (FSS).
   c. If weather permits and the Tower is closed, pilots may depart VFR and obtain their clearance by radio while airborne.
   d. When aircraft conduct an instrument approach at KRYM, all ranges are required to go into check-fire status until approach is completed.
      (1) It is requested that pilots give at least one hour prior notice when planning to arrive at Miller during IFR weather conditions.
      (2) Note that prior notice is not required for practice instrument approaches under Visual Meteorological Conditions (VMC) as long as pilots are able to avoid active ranges and SDZ’s.
      (3) If aircraft are conducting approaches while the airfield is IFR, MAAF Operations will notify CRTC Security to secure the ILS Critical Area (Departure End of RWY 31) from any vehicle traffic during the approach.

3–5. Weather for Operating within R-4301
   a. These requirements do not supersede a unit’s SOP and are intended only to allow training after proper risk assessments and approvals through the unit’s command. All other VFR minimums shall be those prescribed by the appropriate military command.
   b. These minimums shall be based on the area forecasted weather, except for operations within MAAF Class D/E airspace, where the RYM FMQ-22 will be used for ceiling and visibility reports.
   c. Aircraft entering or exiting MAAF require SVFR clearances if the airfield is IFR (1000ft/3SM).

<table>
<thead>
<tr>
<th>AIRCRAFT TYPE</th>
<th>CONDITION</th>
<th>DISTANCE FROM CLOUDS</th>
<th>VISABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotary Wing</td>
<td>DAY</td>
<td>500 feet Ceiling</td>
<td>1 SM</td>
</tr>
<tr>
<td></td>
<td>NIGHT/NVG</td>
<td>700 feet Ceiling</td>
<td>2 SM</td>
</tr>
<tr>
<td></td>
<td>NVG INITIAL QUALIFICATION</td>
<td>1000 feet Ceiling</td>
<td>3 SM</td>
</tr>
<tr>
<td>Fixed Wing/UAS</td>
<td>DAY &amp; NIGHT</td>
<td>500 feet below, 1000 feet above, 2000 feet horizontal (Basic Cloud Clearance)</td>
<td>3 SM</td>
</tr>
<tr>
<td>(Below 10,000ft MSL)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Wing/UAS</td>
<td>DAY &amp; NIGHT</td>
<td>1000 feet below, 1000 feet above, 1 SM horizontal (Clear of Clouds)</td>
<td>5 SM</td>
</tr>
<tr>
<td>(Above 10,000ft MSL)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3-1, VFR Weather Minimums
d. Weather Briefs
   (1) Military weather is available from the 15th Operational Weather Squadron (OWS) website. If a computer is not available, contact the 15th OWS at DSN 576-9755/9702 or COM (618) 256-9755/9702.
   (2) Flight Service Station weather reporting is available at 1-800-WX-BRIEF and follow the prompts given in the message to obtain a weather briefing from the FSS.
   (3) Full time live weather service is not available at MAAF. Current FMQ-22 weather is available online at https://15ows.us.af.mil/index.cfm?fuseaction=displaysitewatch&bases=KRYM&showtaf=showtaf&showob=showob&obtype=0&wwa=1&UID=&BW=H&UF=M&AOR=1&USEHF=1

3–6. Severe Weather Procedures
   a. This section is to establish the responsibilities and procedures for compliance with severe weather warnings affecting personnel, vehicles and aircraft within the Camp Ripley Training Center.
   b. Severe weather warnings are received by MAAF Operations either through a supporting Weather Detachment or from the 15th Operational Weather Squadron at Scott AFB, IL.

   NOTE
   Local area severe weather warnings received by MAAF Operations will be disseminated to visiting aviation unit operations by the best means available whether the units are in garrison or in the field.

c. Weather Information Classifications
   (1) Weather Advisory: is a special notice provided to a supported unit or agency that alerts them to weather conditions that may affect their operations. Weather phenomena detailed in the weather advisory may not be in evidence in the entire advisory area. Area weather advisories, unless specified otherwise in the text of the advisory, are valid for the area enclosed by a circle of 50 nautical mile radius centered on reporting station. Terminal weather advisories are valid for areas enclosed by a circle of 5 nautical mile radius centered from the listed airport.
   (2) Weather Watch: is a special notice provided to a supported unit or agency to alert that organization of the potential for severe weather before actually issuing a weather warning. A watch provides advanced notice of the potential for those extremely hazardous weather phenomena that are disruptive to operations. Weather watches do not indicate severe weather is imminent, only that the potential for such exists.
   (3) Weather Warning: is a special notice provided to a supported unit or agency when an established weather condition of such intensity as to pose a hazard to property or life, is occurring or may occur, for which the supported agency must take protective action. The text of the weather warning defines aerial coverage of the area affected by the warning. Normally, only one weather warning is valid at a time; however, the warning may contain more than one weather phenomena.

d. Severe Weather Definitions
   (1) Tornado Watch: Conditions are favorable for the development of severe thunderstorms capable of producing tornadoes within the watch area. Watches are usually in effect for several hours; with 6 hours being the most common (also automatically indicates a Severe Thunderstorm Watch).
   (2) Tornado Warning: Tornado is indicated by radar or sighted by storm spotters. The warning will include where the tornado is and what towns will be in its path. (Also automatically indicates a Severe Thunderstorm Warning).
   (3) Severe Thunderstorm Watch: Conditions are favorable for the development of severe thunderstorms within the watch area.
   (4) Severe Thunderstorm Warning: Issued when a thunderstorm produces hail 3/4 inch or larger in diameter and/or winds equal to or greater than 50 knots (58 mph). Severe thunderstorms can result in the loss of life and/or property. Information in this warning includes: where the storm is, what towns will be affected, and the primary threat associated with the storm. Tornadoes can and do develop in severe thunderstorms without the issuance of a tornado warning.
(5) Flash Flood Watch: Indicates that flash flooding is possible in and close to the watch area. Units or individuals in the affected area are urged to be ready to take quick action if a flash flood warning is issued or flooding is observed.

(6) Flash Flood Warning: Signifies a dangerous situation where rapid flooding of small rivers, streams, creaks, or urban areas is imminent or already occurring. Very heavy rain that falls in a short time period can lead to flash flooding, depending on local terrain, ground cover, or river conditions.

(7) Heat Advisory: Heat advisories occur when the ambient temperature or the heat index is greater than or equal to 105 degrees Fahrenheit. Commanders should exercise increased vigilance when operating in high temperature conditions.

(8) Wind-Chill Advisory: A wind-chill advisory is issued when the wind-chill is expected to be less than or equal to 10 degrees Fahrenheit. Commanders should take steps to protect exposed individuals.

(9) Wind Advisory: Issued when sustained winds or gusts are greater than or equal to 30 knots.

(10) Wind Warning: Issued when sustained winds or gusts are greater than or equal to 35 knots but less than 50 knots, or when winds or gusts are greater than 50 knots.

e. Responsibilities

(1) MAAF Operations

(a) Initiate the Severe Weather Battle Drill.

(b) Verify the current location, direction of movement and speed, and weather threats (hail, winds, lightning, flash flooding, etc.) associated with the severe weather.

(c) Notify MAAF Tower to issue a weather warning to all airborne aircraft of the weather threat.

(d) Notify all aviation units training at Camp Ripley of the severe weather.

(e) If requested, support unit commanders with the recall of their aircraft through MAAF Tower.

(f) Ensure Camp Ripley Security is aware of the weather threat.

(g) Be prepared to evacuate personnel from MAAF Tower to MAAF Operations.

(2) Company Commanders.

(a) Ensure access to 24-hour weather reporting that includes the Camp Ripley and surrounding areas.

(b) Ensure all personnel are familiar with adverse weather procedures for the current location of assignment.

(c) Ensure communication is available with all sections within their command.

(d) Ensure accountability of all personnel is active and the Battle Buddy procedure is enacted for all members of the command.

(e) Ensure Leaders are aware of their personnel physical conditions and have identified those members who have a history of heat injury.

(f) Ensure sufficient mooring equipment accompanies all aircraft.

(g) Review unit’s severe weather contingency plans to ensure sufficient flight crews are available to evacuate all aircraft.

(h) Establish pre-coordination for evacuation of aircraft to alternate locations should the need arise.

(i) Ensure storm shelters were identified upon arrival at Camp Ripley and that all personnel know these storm shelter locations.

(3) All Personnel.

(a) Maintain situation awareness regarding weather conditions.

(b) Ensure equipment is secured and windows in vehicles are closed when threatening weather is approaching.

(c) As much as possible, do not locate near items likely to be hit by lightning during a storm: avoid trees or other high structures; stay away from antennas; and if possible, remain indoors until the lightening threat passes.

(d) Ensure all equipment is secured to minimize damage from flying debris.
3–7. Aircraft Mooring Policy
a. When notified of forecasted severe weather, or winds in excess of 45 knots, all aviation units will take precautions to prevent damage to aviation assets.
b. All military rotary wing aircraft will be moored in accordance with TM 1-1500-250-23. When feasible, units will face the aircraft into the forecasted wind before mooring.
c. Civilian Aircraft are responsible for providing mooring equipment for their aircraft.

3–8. Flight Following
a. Flight following is mandatory for all aircraft operating in R-4301. Flight following reports will be made to MAAF Tower or MAAF Operations. If MAAF Tower and MAAF Operations are closed, aircraft must flight follow with their aviation unit operations (tactical Flight Operations section). The tactical Flight Operations section must receive training through MAAF Operations and be approved by the MAAF Commander.
b. Pilots are required to report when:
   (1) Landing at or departing a field location and next reporting point.
   (2) 15 minutes since last report.
   (3) Terminating a flight from within R-4301.
   (4) Position leaving or entering R-4301.

   IMPORTANT
   Whenever possible, aircraft are required to utilize 126.2 VHF (primary) and 254.4 UHF (secondary) to contact Miller Tower during flight following. The 800 MHZ (state active duty radio) is to be used sparingly as a back-up communication tool, and only after an attempt is made to contact ATC on the primary frequencies.

3–9. Range Firing Information
a. Range bulletins are published daily and are available through Range Control or MAAF Operations. This bulletin contains all scheduled range firing information that is available at the time of printing. Pilots will have a current range briefing sheet aboard their aircraft when flying within R-4301.
b. Range Bulletins can also be accessed and printed directly from the Camp Ripley Range Control Page on SharePoint at https://ngmnsharepoint/CRTC/OPS/Range/default.aspx.
c. MAAF Tower or Advisory will disseminate current range information to aircraft planning to operate downrange. Aircrews must understand that the advisory information is a supplement to the existing Range Bulletin. All aircrews are responsible for BOTH the Range Bulletin and the advisory from MAAF.
d. Current range information will be identified by use of phonetic alphabet designator. (Example: “Range Information Alpha”) The designator will precede any or all of the following:
   (1) Live fire ranges (i.e. “Center Range”)
   (2) Air Advisory Blocks
      (a) Firing Positions
      (b) Impact/ Target Areas (i.e. “Training Area 34 firing into Hendrickson”)
   (3) Restricted Operating Zones (i.e. “Ripley ROZ; UA operations 1500’ AGL and below”)
e. It is the responsibility of the pilot to receive current range advisory information and maintain appropriate clearance from active firing positions and HOT impact areas.
f. Lost Communications: In the event the aircraft can’t contact MAAF tower on VHF, UHF, FM and or 800 MHz, it is required that aircraft contact Range Control on FM 36.10 to obtain current range information prior to entering the restricted area and continue to contact Range control every 30 minutes to receive range updates. Pilots will then report leaving the restricted area upon completion of training.
g. Any pilot observing an unsafe range condition MUST notify MAAF or Range Control on 36.10 as soon as possible.
3–10. Range Hazard Map
The master Range Hazard Map / Range Advisory Grid System is posted in Flight Operations. A copy of this map is required to be utilized by all aircraft operating within R-4301. Personnel noting hazards not identified on the Master Hazard Map are requested to notify MAAF Operations personnel immediately. The Range Hazard Map will be reviewed monthly and updates will be sent to habitual units.

3–11. Aircraft Ground Operations
All ground operations are conducted in accordance with aircraft operator manuals. All aircraft left unattended will be chocked and/or tied down. There are no designated run-up areas. Parking pad #1 (directly in front of Operations) is reserved for VIP aircraft.

3–12. No Fly Area
The ammunition storage area located directly north of the airfield is a designated as no over flight area. Refer to Figure 3-3 below.

3–13. Refueling / Defueling Operations
a. Refueling operations will be conducted in accordance with ATP 4-43 and appropriate safety regulations.
   b. Helicopters parked next to a refueling operation will not begin engine run up until the refueling operation is complete. Helicopters are not authorized to hover near aircraft during refueling operations.
c. Hot refueling on MAAF will only be accomplished in areas designated by MAAF personnel. Hot refueling operations will be initiated only after a thorough inspection of the Forward Area Refueling Point (FARP) site has been accomplished by the unit or Airfield Safety Officer, and any discrepancies found, corrected. A completed copy an appropriate unit FARP checklist, will be utilized for an initial inspection of the refueling system and will be maintained at the FARP site until it has been disassembled.

d. Coordinate defueling operations with Camp Ripley POL personnel at 320-616-3001 / 3002.

3–14. Hazardous Cargo/Ammunitions Operations

a. Authorization must be obtained from MAAF Operations prior to conducting hazardous cargo operations on the airfield. Crash Fire Rescue will be placed on alert and Miller Tower will suspend all takeoff and landing operations to the runway until the hazardous cargo operations have been completed.

b. Aircraft with hazardous cargo must taxi to a point approximately 300 feet from the approach end of RWY 31R to off load hazardous cargo after landing. The pilot must shut down the aircraft and all electrical switches must be placed in the off position.

c. Crash fire rescue personnel will ensure that a suitable ground is attached to the aircraft prior to loading or unloading operations.


Runway 13-31 is used for emergency procedures training. Maneuvers will be conducted with two-way radio communication with Miller Tower or MAAF Operations in accordance with AR 95-1 and current ATM procedures.

3–16. Terrain Flight Training

a. All tactical terrain flight training shall be conducted within R-4301 (North and East Boundary: Mississippi River, West Boundary: Hwy 1 and property line depicted on map, Southern Boundary: Chickamauga Road.). Off-post terrain flight is prohibited, except in the case of an emergency.
b. Nap of Earth (NOE) routes are defined on the Camp Ripley Aviation 1 to 25K Map. These routes are oriented South to North. The maximum density for per route is one aircraft, and the direction of travel will be given by MAAF Tower/Advisory.

c. Air to Air communication is encouraged during high density periods of aircraft in R-4301, however communication with MAAF Tower/Advisories is still mandatory. UHF 242.2 is the authorized Air to Air frequency at Camp Ripley. Aviation units can request their own air to air frequencies as required.

d. Transitional Routes Blue and Brown may be flown low level (1750ft MSL or below) if requested. Utilization of transitional routes at low level altitudes will require all subsequent traffic to fly the active Blue or Brown low level route to reduce aircraft collisions. Aircraft Density on low level Blue or Brown routes will be limited to 4 separate flight operations at any given time. (Refer to para 2-8).

e. NOE Routes and Low Level Blue and Brown routes will not be flown concurrently.


a. All night flight training operations requiring support, outside normal hours, will be coordinated with Airfield Operations 15 days prior to the intended training date for the purposes of scheduling operations personnel.

b. Prior approval is required for all lights-out NVD/NVS training in R-4301.

1) Lights out is considered IR lighting only or black out flight training. Any units wishing to conduct lights out training in R-4301 are responsible for ensuring that all notification procedures and requirements have been met in accordance with TC 3-04.4.

2) Lights out training will be de-conflicted with other units training and non-participating aircraft will not be allowed in those designated areas for the duration of lights out training.

3) MAAF Operations will ensure that the restricted area airspace is activated to an altitude of at least 500 feet above the highest anticipated training altitude for lights out training.

NOTE

Position lights will be on when operating within the confines of the Camp Ripley cantonment area and in the MAAF traffic pattern, to include the IP for NOE lane one.

c. Aircraft returning to the airfield from R-4301 will have their anti-collision lights and aircraft position lights on steady bright upon reaching the designated ACPs. The anti-collision lights will remain on at all times while operating within the MAAF traffic pattern. Aided aircraft in the MAAF traffic pattern at night will have position lights on steady bright. Lights may be dim on short final, 100 feet AGL or less. After landing, place lights to steady bright.

d. The anti-collision light may be turned off during ground operations with tower permission. If aircraft are operating as a flight, the trail aircraft will have its anti-collision lights on.

d. All NVD/NVS aircraft entering or exiting the Airport Traffic Area from R-4301 shall call passing ACP(s) Blue or Brown as applicable. Additionally, the following altitudes will be utilized when entering and exiting R-4301:

1) Outbound from the airfield to R-4301: 2100 feet MSL and below until reaching ACP then designated transitional route altitude or other approved training altitude.

2) Aircraft experiencing an emergency situations:

(a) Shall notify the tower immediately and place navigation lights in “flash bright” (if equipped).

(b) All other aircraft shall remain on the ground (if on the ground).

(c) If in a flight, separate from the flight and perform emergency procedures.

3) Lost in the Traffic Pattern: If an aircraft becomes disoriented while in the traffic pattern, the following procedures shall apply:

(a) Pilot will announce over the radio that he/she is disoriented.

(b) Place navigational lights in “flash bright” (if applicable).

(c) Airborne aircraft will continue pattern, land and remain on the ground until the disoriented aircraft is reestablished in the traffic pattern.

e. If weather conditions within the Class D Airspace deteriorate to less than prescribed aided minimums, tower or flight operations will announce the conditions. All aided traffic in R-4301, whose base
of operations is MAAF, will terminate their training and land as soon as practicable at a suitable field location. Prior to landing, aided aircraft will notify tower of their status and grid coordinates. It is the units’ responsibility to retrieve the flight crews in R-4301.

f. NVD Minimums.
   (1) KRYM: 700-2
   (2) Non IFR equipped Aircraft: 1000-3
   (3) Initial NVD/NVS qualification: 1000-3

3–18. Internal and External Load Operations
   a. All fixed wing cargo and helicopter external load operations conducted at MAAF must be cleared through MAAF Operations.
   b. Helicopters will utilize procedures established in the applicable TC (external load operations) and the aircraft operator’s manual (-10). In addition, the following precautions will be adhered to.
      (1) Only trained and briefed ground personnel wearing proper protective gear will be used during hook up operations.
      (2) Aircraft conducting external load operations will not over-fly buildings or concentrations of Soldiers in the field.
      (3) Aircraft conducting external load operations will remain within the confines of the Camp Ripley Reservation.
      (4) The tenant unit commander will ensure that all vehicle drivers involved in airfield cargo ground operations are briefed on Chapter 5 of this regulation.
   c. In the event of a dropped load or malfunctioning hook, the unit will immediately suspend external load operations and notify MAAF Tower or Operations of the problem. The unit will not utilize the cargo hook until it has been thoroughly inspected by qualified maintenance personnel. In addition, an abbreviated aviation accident report (AAAR) will be filed with copy provided to MAAF Operations.
   d. Fixed wing and rotary wing internal cargo operations require a PPR NLT 72 hours prior to conducting internal operations. MAAF does not have any organic Material Handling Equipment (MHE) available to load/unload internal cargo, and requires prior coordination to stage MHE.

3–19. Aerial Gunnery Operations
   a. All aerial gunnery operations will be coordinated with Camp Ripley Training Site Headquarters (320-616-2709), 120 days prior to the exercise IOT schedule ranges.
   b. A copy of the tenant unit SOP relating to aerial gunnery operations must be submitted to the MAAF Operations for approval 30 days prior to the exercise.
   c. A copy of the unit fly schedule relating to aerial gunnery operations must be submitted to the MAAF Operations 15 days prior to range operations. A PPR is also required for arrival at MAAF.
   d. Range Control is the controlling agency for aerial gunnery operations within R-4301. MAAF Tower/Advisory will support operations prior to range activation and upon completion. Please refer to the Camp Ripley Range Regulation Chapter 11.

3–20. Parachute Operations
   a. Any unit intending to use MAAF or R-4301 as a drop zone will coordinate with MAAF Operations and Range Control at least 24 hours prior to the intended drop.

   NOTE
   Drops occurring on the airfield proper will require 72 hour notice, and personnel will be the only approved drops on the airfield area.

   b. All heavy drops will be conducted in R-4301 at designated drop zones. Aircraft utilizing Camp Ripley for parachute training must maintain radio communications with MAAF until the drop is complete and aircraft is clear of R-4301.
3–21. Hoist and Rappelling Operations
   a. All hoist and rappelling operations will be conducted in accordance with unit SOP.
   b. Units shall incorporate criteria for planning, site selection, and risk mitigation measures for live hoist/rappelling training operations in order to minimize Emergency Medical Services (EMS) personnel response time.

3–22. Formation Flying
Formation flying must meet all criteria outlined in AR 95-1.

3–23. Controlled Movement Areas
Refer to Appendix B.

3–24. Sensitive / Classified Storage
No storage is available at MAAF for sensitive or classified materials.

Chapter 4
Unmanned Aircraft Systems (UAS) Flight Operations

4–1. Personnel Authorized to Operate UAS
   a. To operate a U.S. Government UAS in Camp Ripley special use airspace (SUA), the operator must have completed an applicable US Army-approved qualification course, or be a student in the course.
   b. Out of state unit requirements: Coordinate with a Master Trainer from MN to verify all requirements can be met, current maps given to unit and a site survey by Master Trainer or Airfield Manager prior to launch.
   c. Non-Department of Defense use of Army Restricted Airspace (R-4301) is prohibited in accordance with Non-Department of Defense Use of Army Restricted Airspace 21 June 2013.
   d. Commercial off the shelf (COTS) UAS operations within Class D/E/G airspace is prohibited without prior approval from the Garrison Commander. The Senior Commander may authorize use of COTS UAS for commercial purposes within the Class D/E/G airspace on a case-by-case basis. Operators must comply with all requirements for commercial UAS use found in Title 14, Code of Federal Regulations, Part 107 and the Camp Ripley APG.
   e. Commercial and recreational use within Camp Ripley is prohibited without prior approval from the Senior Commander. See paragraph 4-1d for further details.

4–2. Certificate of Waiver or Authorization (COA)
   a. In accordance with Army Directive 2012-02 (Supplemental Policy for Operations of Unmanned Aircraft Systems in the National Airspace System), UAS operations outside of restricted or warning areas require an FAA-approved COA.
   b. COA applications can be requested through the CRTC AT&A Officer/Airfield Manager in conjunction with the FAA Service Area Department of the Army Representative (DAR).
   c. Units will provide MAAF Flight Operations with a copy of the approved COA before any UAS operations are conducted.

4–3. Air Worthiness Release (AWR)
   a. In accordance with Memorandum of Agreement (MOA) concerning the operation of Department of Defense (DoD) Unmanned Aircraft Systems (UAS) in the National Airspace System (NAS) dated 16 MAY 07, DoD UAS operating outside of Restricted Airspace shall be certified by one of the military departments as airworthy to operate at the appropriate level in accordance with applicable DoD and Military Department standards.
   b. Units will provide MAAF Flight Operation with a copy of the approved AWR before any UAS operations are conducted.
c. Commercial off the shelf (COTS) UAS operated by any government employee require an AWR to operate inside the boundaries of Camp Ripley.

4–4. Proper Use Memorandum (PUM)
   a. Directed by the Secretary of Defense (SECDEF), the PUM is required for all DoD flights.
   b. Units are required to provide MAAF Flight Operations with a copy of their PUM before any flight operations begin.
   c. COTS collecting and sharing visual or geospatial data requires a PUM.
   d. The State J2 will coordinate with NGB J2 to obtain.
   e. MNARNG J2 is the primary manager of all MN PUMs.

4–5. Requesting Maneuver Space for UAS Operations
   a. The unit Commander or designated representatives are the only personnel authorized to request airspace for UAS operations. The request must include ground and airspace maneuver areas. Scheduling will be conducted IAW Chapter 11, Camp Ripley Range Regulation.
   b. Flight of a UAS at Camp Ripley requires approval from:
      1) Range Control for R-4301, Training Areas and ranges.
      2) Air traffic and airspace (AT&A) officer for Distant Notice to Airmen (D-NOTAM) to notify the public of scheduled UAS operations in the Class D airspace if applicable. Unit must have a COA to operate in Class D outside of R4301.

4–6. UAS Operator Currency
   a. Operators will maintain currency in accordance with AR 95-23, and TC 3-04.61 (Unmanned Aircraft Systems Commander’s Guide and Aircrew Training Manual) or TC 3-04.62 (Small Unmanned Aircraft System Aircrew Training Manual) as appropriate.
   b. In addition to the requirements in AR 95-23, TC 3-04.61, and TC 3-04.62, operators must complete the Ray S. Miller Army Airfield Safety and Information Brief. Each operator must have annual refresher training for Shadows and semi-annual for Ravens. If personnel will be on the ground down range, that unit will meet all requirements of the Camp Ripley Range Regulation and have a current safety brief within 90 days.

4–7. Terms and Responsibilities
   a. Unmanned Aircraft Operator (AO). The AO controls and/or monitors the flight of the air vehicle (AV) from within a ground control station (GCS), launch recovery station, portable GCS, or similar device. This is normally done through the use of a monitor, not by direct visual contact with the AV.
   b. External Operator (EO). The EO is the SUAS crewmember responsible for takeoff and landing of unmanned aircraft not incorporating an automatic takeoff and landing system.
   c. Mission Coordinator (MC). The MC is responsible for control over all flight operations from pre-mission planning through debriefing. The UAS unit commander will designate mission coordinators in writing and include MC’s by name in the Commander’s Safety Certification Memorandum provided to Range Control.
   d. Mission Payload Operator (PO). The PO is responsible for operation of the payload sensor.
   e. Instructor Operator (IO). The IO will train and evaluate unmanned aircraft crewmembers in accordance with the appropriate aircrew training manual (ATM). The IO must be qualified and current in the UAS to be flown. The UAS unit commander will designate the IO in writing in accordance with AR 95-23.
   g. Standardization Instructor Operator (SO). The SO will primarily train and evaluate IOs and other SOs. SOs have technical supervision of the unit’s standardization program as specified by the unit commander. The SO is the commander’s technical advisor who advises the commander on all levels of UAS standardization within the command, and assists the commander with development, implementation, evaluation, and management of the unit’s aircrew training program. IOs will be designated in writing as SOs by the unit commander and be qualified and current in the UAS to be flown and/or operated. Commanders may authorize SOs to instruct and evaluate from any designated crew station.
h. **Tactical Unmanned Aircraft System (TUAS).** RQ-7 Shadow or similar.

   i. **Unit Trainer (UT).** The UAS unit commander may appoint UTs to conduct specialized training to assist in unit training programs. UTs are prohibited from conducting emergency maneuvers or emergency procedures training. UTs are also prohibited from evaluating ATM base and special tasks. Commanders may authorize UTs to instruct from AO, PO, or, if appropriate, EO stations. They may also authorize UTs to validate successful completion of required training, for example, border and corridor qualifications, local area orientation, and other locally directed requirements. When performing UT duties, the UT must be qualified per the appropriate ATM and current in the UAS being flown and/or operated.

   j. **Commercial Off the Shelf (COTS) UAS.** An unmanned aircraft system (UAS), sometimes called a drone that is not in the Department of Defense inventory. COTS UAS are procured from the civilian market.

### 4–8 Tactical Unmanned Aircraft Systems (TUAS) Procedures

   a. All TUAS activity will be conducted within active restricted airspace (R-4301) unless a COA has been obtained from the FAA, or operations are conducted under the provisions of the memorandum of agreement between the FAA and DoD. Procedures for obtaining a COA are outlined in 4-2.

   b. A temporary ROZ may be established within R-4301, only after coordination with Range Control and the AT&A Officer.

   c. Units will continuously monitor the appropriate air-to-ground frequency published in the L-NOTAM and/or range bulletin while operating within R-4301.

   d. After coordination with RFMSS scheduling, units will request a D-NOTAM (if any operations shall be in Class D airspace) be published. UAS training requests must be submitted in RFMSS no later than 90 days prior to the event. RFMSS requires four facility (4) reservations to be scheduled for the same event:

      1. The ground facility either TA23 UAS Runway or MAAF (must have approved COA).
      2. The lost link location (ground facility) must also be reserved (i.e. Ripley drop zone).
      3. The Airspace ROZ above the requested Ground Facility (the Launch ROZ).

   e. Radio communications between the UAS operators and MAAF Tower or Advisory is mandatory during flights in R-4301. The pilot and/or PIC will maintain direct, two-way communication with ATC/OPS. The use of land-line and/or cellular telephones is prohibited as the primary means for inflight communication with ATC.

   f. In the event of an emergency or lost link, MAAF Tower will be notified immediately on 46.7 FM, 126.2 VHF, 254.4 UHF, or through Range Control on 36.1 FM. The following information will be provided:

      1. Type TUAS (Shadow, Hunter, etc.)
      2. Last known position (using latitude and/or longitude coordinates)
      3. Last known altitude (MSL)
      4. Last known heading
      5. Programmed lost link procedure: what the AV was programmed to do in the event of lost link.

   g. Units will contact MAAF Tower (320-616-2781) or Advisory (320-616-2779) 30 minutes prior to mission launch.

   h. Units will contact MAAF Tower or Advisory when the last AV is recovered for the mission day.

   i. Range Control will monitor RFMSS for UAS activities.

   j. Units will have the AV (if equipped) squawk mode 3/A transponder code "4000" at all times while operating in approved ROZ and while in the R-4301 airspace unless otherwise coordinated with the AT&A Officer and/or Air Traffic Control (ATC).

   k. Units and/or operators are responsible for ensuring compliance with procedures in these regulations, AR 95-1, AR 95-2, AR 95-23, FORSCOM Supplement 1 to AR 95-1, FORSCOM Supplement 1 to AR 95-23, TC 3-04.61, TC 3-04.62, TC 3-04.11, and the FAA COA when applicable.

   l. Units and/or operators will conduct all operations in visual flight rules (VFR) conditions according to Title 14, Code of Federal Regulations (14 CFR), Part 91.155.
m. Units and/or operators will have the ability to safely terminate and maintain positive control of the TUAS at all times.

n. The Center Range UAS ROZ has been established and specific procedures are listed below:
   1. Maintain the UAS within the ROZ during launch and recovery operations.
   2. Ensure collision avoidance with non-participating aircraft and safety of persons or property on the surface with respect to the UAS.
   3. Establish and maintain two-way radio communications with MAAF Tower or Advisory to include transmitting SITREP every 15 minutes while the TUAS is airborne.

o. Units must initiate their final approach to landing NLT 30 minutes prior to the tower/operations closing time. This is to ensure that a missed approaches will be on the ground before the tower/operations duty day expires.

4–9. Weather Requirements
Refer to paragraph 3-5 of this publication.

4–10. Air Traffic Control Procedures
   a. A comprehensive Letter of Agreement (LOA) is required and coordination may include unit commander, airfield commander/manager, and ATC facility chief in accordance with Army Directive 2012-02 (Supplemental Policy for Operations of Unmanned Aircraft Systems in the National Airspace System).
   b. A review of the proposed LOA by the Department of the Army Representative is required before execution.
   c. Letters of Agreement do not waive or modify restrictions listed in the FAA COA.
   d. Required procedures established in the LOA will cover:
      1. Missed approach procedure
      2. Lost link procedure
      3. Loss of visual contact procedure

4–11. TUAS Call Signs
Call signs used when flight following consist of the AV name and the last five digits of the tail number, unless alternate call sign has been coordinated with MAAF Tower or Advisory (i.e. Bullseye 02). If the AV has fewer than five digits, it will be the full tail number (Hunter 222). The names for each AV type are Hunter, Shadow, Gray Eagle, etc (Not applicable to SUAS/COTS).

4–12. Local Notice to Airmen (L-NOTAM)
   a. L-NOTAM ROZ procedures, for TUAS only.
   b. Contact the AT&A Officer at MAAF Operations to have an L-NOTAM published. The AT&A Officer will determine the need for an L-NOTAM.
   c. L-NOTAM must be requested no later than 7 days and no earlier than 30 days prior to activity.
   d. ROZ, L-NOTAM requests will contain the following information:
      1. Unit
      2. Point of contact
      3. Local telephone number
      4. Location
      5. Activity
      6. Altitudes needed for the activity
      7. Time(s) ROZ to be active
      8. Dates of use
      9. Frequency and call sign
4–13. Utilization Reporting

a. Primary utilization reporting is accomplished through RFMSS. Units are required to report UAS activity through their Commander or designated representative to Range Control (SUAS) or MAAF Tower or Operations (TUAS) with the following information daily.

1. Total number of aircraft flown
2. Total number of sorties/flights (sortie – one launch and one recovery is (1) sortie)
3. Total number of personnel trained.

b. TUAS operating under a COA are required on a monthly basis to report the following to MAAF Tower.

1. Month and year
2. COA number
3. Type of aircraft
4. Total number of flights conducted
5. Total aircraft operational hours
6. Total ground control station operational hours
7. For each flight: Date, flight number (for that day), aircraft operational hours, GCS operational hours and pilot duty time per PIC.

Example:

09/13/2011
  Flt. 1; 2.0hrs; 3.0hrs; 0.8hrs PIC1, 1.5hrs PIC2
  Flt. 2; 4.0hrs; 5.0hrs; 1.8hrs PIC1, 2.7hrs PIC2
  Flt. 3; 6.0hrs; 7.0hrs; 2.8hrs PIC1, 3.7hrs PIC2

8. Total number of deviations from ATC instructions and/or Letters of Agreement or Procedures
9. Total number of loss of communications events (with observer or ATC)
10. Total duration of loss of communications events (with observer or ATC)
11. Total number of lost link events
12. Total duration of lost link events
13. Number and duration of Loss of Communication (with either observer or ATC) and Lost Link Events:

   List the date, event type and duration for each event; for example:
   09/13/2011; Lost Link; 1min 45sec
   09/13/2011; Lost Link; 2min 11sec
   09/27/2011; Loss of ATC Comm; 44sec

14. Total number of equipment malfunctions (hardware/software affecting either the aircraft of the ground control station)
15. Describe any other operational / coordination issues

4–14. Lost Link Procedures

a. In the event of a lost link, the UAS pilot will immediately notify MAAF Tower/Operations at (320) 616-2781/2779, state pilot intentions, and comply with the following provisions:

b. RQ-7B Shadow 200: Upon loss of link the UAS operator shall follow lost link procedures as outlines in the COA. The lost link location is Ripley Drop Zone.

1. MAAF ATC tower will then notify all other aircraft to remain clear of Ripley DZ.
2. The MC or VO will maintain radio contact with MAAF ATC facility until control has been reestablished with the UAS or the flight has terminated.

c. SUAS is the Launch Point within the ROZ. Upon notification of Lost Link, SUAS Operators shall immediately notify Range Control and MAAF Tower/OPS immediately provided the following information:
(1) Call Sign
(2) Type of SUAS (Raven, etc...)
(3) Last known position (Using training area or latitude/longitude coordinates)
(4) Last known altitude (MSL)
(5) Last known heading
(6) Programmed Lost Link Procedure. (What the SUAS/UAS was programmed to do in the event of “Lost Link” or Return Home coordinates.)

4–15. Lost Communications Procedures
   a. The ground control station (GCS) has a minimum of three radios, 1-UHF/1-VHF/1-FM. In the event of lost communications from the GCS to ATC, the Mission Commander assumes the responsibility direct communications (via telephone) with MAAF Tower and for the relay of ATC instructions to the GCS.
   b. A lost communications event requires immediate recovery of the UAS for landing at Ripley DZ per ATC instructions. Ripley DZ (pre-established coordinates for recovery of the UAS to Ripley DZ.) is inside R-4301.
   c. MAAF Tower will require UAS operation to cease until communications can be reestablished. In the event, the Mission Commander loses communications with ATC, the UAS operations will immediately cease and the Shadow will land at Ripley DZ. The UAS Operators will contact MAAF Tower via landline.

4–16. Airspace Safety Procedures
   a. Surveillance requirements:
      (1) One or more methods of surveillance will be provided for all UAS operations. The type of surveillance will be either visual or electronic, i.e. moving map indicator and/or radar depending on the mission and type vehicle flown.
      (2) If, at any time, the position of an AV becomes unknown and the AV fails to respond to programmed lost link instructions, the flight will be terminated in time to preclude the possibility of impact outside the approved designated flight area.
   b. Safety factors for operational planning. Operational plans for UAS training flights must take into consideration the type of AV, results to be achieved, and the area in which operations have been approved to be conducted. Operations will not be conducted outside of the boundaries of the Camp Ripley restricted area unless approved by the FAA and the Camp Ripley AT&A Officer.
   c. Each airspace safety plan must take into consideration.
      (1) Capability of AV, such as altitude, range, speed, wind factors, and amount of guidance which may be commanded to the AV (programmed or other), deviations allowable from assigned headings that the UAS may take due to malfunctions, and type of launch.
      (2) System for flight termination, parachute, or other functions which would affect flight safety.
      (3) The methods for obtaining real-time position of the AV in flight, such as, visual, airplane, radar, telemetry, and global positioning system.
      (4) The procedures for area surveillance during flight.
      (5) Aerodynamic data used to determine flight safety grids will include, but not be limited to, glide ratio of the AV, detailed performance data, intended recovery site, parameters of the flight area, and method of area surveillance such as visual or electronic.
      (6) Units will have the AV (if transponder equipped) squawk mode 3/A transponder code “4000” at all times while operating in approved ROZ and while in the R—4301 airspace unless otherwise directed by ATC.

4–17. Separation Criteria
   a. Separation between manned and unmanned aircraft within the Camp Ripley restricted area is established by the use of ROZs and blocks of altitude. In those incidences where manned and unmanned aircraft are sharing the same airspace the following minimum separation criteria will apply.
      (1) Vertical separation between manned and unmanned aircraft will be 305m (1,000 ft).
      (2) Lateral separation between manned and unmanned aircraft will be 1/2km (3,280 ft/).
b. Minimum separation criteria unmanned aircraft within the Camp Ripley restricted area is as follows.
   (1) Vertical separation between unmanned aircraft will be 305m (1,000 ft).
   (2) Lateral separation between unmanned aircraft will be 1.2km (3,280 ft).
   (3) Maximum density within the ROZ is two SUAS airframes aloft at one time.

4–18. CRTC SUAS Procedures
   a. All SUAS activity will be conducted within active restricted airspace (R-4301), except for the instances below.
      (1) SUAS are not authorized to fly over the Impact Areas on the reservation.
      (2) SUAS are not authorized to fly within the Class D Airspace. An Exception to Policy must be submitted to MAAF Operations no later than 72 hours prior for review and authorization by the AT&AA Officer.
   b. A temporary ROZ may be established within R-4301, only after coordination with Range Control. To the extent possible, temporary ROZ(s) will not impact the transitional routes.
   c. Radio communications between the SUAS operators and Range Control is mandatory during flights in R-4301.
   d. After coordination with RFMSS scheduling, units will request an L-NOTAM be published. SUAS training requests must be submitted in RFMSS no later than 90 days prior to the event. RFMSS requires three (3) reservations to be scheduled for the same event.
      (1) The ground facility (range of TA) that the MQ Operator will utilize as the Launch Point (LP).
      (2) The Airspace above the requested Ground Facility which will be the launch Restricted Operation Zone (ROZ).
      (3) R-4301 must be reserved in addition to the first two facilities.
   e. To comply with FAA Regulations, Range Control MUST have a minimum notice of 48 hours prior to an unscheduled ROZ request to ensure proper scheduling of the ZMP R-4301 with the FAA. The requested ROZ must be one that has already been created and approved by Range Control. If not, the request will be denied, or delayed until Range Control can create a new ROZ.
   f. SUAS will only operate inside their assigned ROZ.
   g. SUAS Mission Qualified Operators (MQ) will be listed as such in the Commander’s Safety Certification Memorandum to Range Control. This certification is valid for one year. There is no minimum rank requirement, as the Company Commanders’ appoint MQs, per TC 3-04.62.
   h. MQs must attend a Range Safety Briefing and sign a Range Safety Briefing Agreement prior to flight operations.
      i. A SUAS Risk Assessment Form must be on file at Range Control.
      j. Range Control will treat the ROZ the same as a live-fire range for ROZ Opening/Closing procedures only. The MQ will Open/Close the LP/ROZ with Range Control utilizing RC Form 44 UAS/SUAS Opening/Closing Checklist. Range Control must receive permission from MAAF Tower or Operations to open the ROZ, prior to opening the LP/ROZ.
      k. There are three instances in which SUAS Units operating within a ROZ will contact MAAF Tower or Operations directly.
         (1) Upon initial occupation of the ROZ before the first flight.
         (2) In the event of a Lost Link.
         (3) Any time the SUAS is flown outside of the ROZ and/or R-4301.
   l. SUAS do not require a COA as long as the mission remains within the designated ROZ inside R-4301.
   m. Maximum density within the ROZ is “two” SUAS airframes aloft at one time.
   n. SUAS lateral limits are RESTRICTED to the designated Restricted Operating Zone.
   o. SUAS vertical limit is 1,500 feet AGL.
   p. The standard Lost Link point for SUAS is the Launch Point within the ROZ. Upon notification of Lost Link, SUAS Operators shall immediately notify Range Control and MAAF Tower or Operations.
q. Upon notification, MAAF Tower shall:
   (1) Issue advisories and ATC instructions as appropriate to insure the safe operation of all aircraft training in R-4301.
   (2) Cease aircraft departures until status of affected SUAS/UAS is determined.
   (3) Recover other SUAS/UAS as appropriate.

r. Unit will close the LP/ROZ Facility with Range Control. Range Control will clear the Ground Facility on a case-by-case basis.

s. Units and/or operators are responsible for ensuring compliance with procedures in this regulation, AR 95-1, AR 95-2, AR 95-23, FORSCOM Supplement 1 to AR 95-1, FORSCOM Supplement 1 to AR 95-23, TC 3-04.61, TC 3-04.62, TC 3-04.11, and the FAA COA when applicable.

t. Units and/or operators will conduct all operations in visual flight rules (VFR) conditions according to Title 14, Code of Federal Regulations (14CFR), Part 91.155 (refer to Figures 3-1 and 3-2).

u. Units and/or operators will have the ability to safely terminate and maintain positive control of the SUAS at all times.

4–19. Multi-platoon SUAS Operations
   a. Multiple SUAS platoons may conduct training utilizing the same launch and recovery area provided the following minimum conditions are met (if approved).
   b. Platoons must have conducted coordination and agree to the onsite location(s), frequency usage, and other established de-confliction standards and procedures deemed appropriate.
   c. The SUAS will maintain at least 1,000 feet horizontal and/or 500 feet vertical separation from each other during the mission.
   d. Prior to conducting a climb or descent, the SUAS platoon will coordinate with the other SUAS platoon to ensure they are clear of the designated climb/descent routes.

4–20. Accident and Incident Reporting
   a. In addition to requirements in AR 95-23, AR 385-10 and DA PAM 385-40, MAAF will provide the initial report of all UAS accidents or incidents to the appropriate DAR within 24 hours.
   b. The Camp Ripley UAS Pre-Accident Plan is managed by the Airfield Safety Officer assigned to Miller Army Airfield.
   c. UAS accident reporting applies to all UAS (including small UAS). Small UAS accident reporting is addressed in AR 95-23.
   d. DA Form 2397-U (Unmanned Aircraft System Accident Report) is required for all UAS aviation accidents, regardless of the class. Investigation and submission of form 2397-U will be in accordance with AR 385-10.

Chapter 5
Airfield Ground Safety

5–1. General
Ray S. Miller Army Airfield property is a restricted area intended solely for aviation activities. The following restrictions and control measures are established to ensure the safety and security of personnel and equipment.

5–2. Pedestrian Traffic
All personnel must obtain permission from tower or operations prior to proceeding onto any designated movement area. A movement area includes all runways out to 500 feet from centerline, taxiways, and ramp. Pedestrians proceeding into unlighted areas at night will display a flashlight or other approved illumination device to include the grass parking pads.
5–3. Airfield Vehicle Access
   a. The policies and procedures herein do not apply to designated parking areas.
   b. During normal duty hours, all vehicles must coordinate with MAAF Operations and the control tower to receive clearance and a ramp briefing prior to proceeding beyond the vehicle parking areas. This includes the grass parking pads between official sunset and sunrise. To operate a vehicle on a movement area a person must have received MAAF flight line drivers course, or be escorted by MAAF personnel.
   c. Outside normal duty hours, no vehicle, other than snow removal or runway maintenance equipment, shall proceed onto the runway, taxiways or parking ramp area.
   d. POVs are prohibited on airfield surfaces beyond the designated vehicle parking areas, except when specifically authorized by airfield operations.
   e. All personnel operating on a movement area must maintain two-way communications with MAAF Tower or Operations at all times on 126.2 VHF or 49.2 FM.

5–4. Vehicle Operating Standards
   a. The following standards must be maintained at all times when operating vehicles on the flight line or helipads.
      b. Do not back vehicles in the immediate direction of any aircraft, except as authorized in certain towing, loading or refueling operations. In those cases where backing toward an aircraft is necessary, a ground guide must be posted to preclude backing into an aircraft.
      c. All vehicles which do not require the operation of the engine to perform aircraft servicing operations must have the ignition turned off, brakes set and gear lever placed in the park position whenever the driver seat is vacated.
      d. Maximum speed limit on the parking ramp or in the vicinity of aircraft is 5 MPH. In other areas the speed limit shall commensurate with the terrain conditions, vehicle capabilities, weather and mission. Speeds must not exceed 15 MPH, unless approved by MAAF Operations for training purposes.
      e. Vehicles shall maintain a 50 feet clearance from refueling tankers and parked aircraft. Do not operate vehicles within 100 feet of aircraft when their engines are running.

Chapter 6
Aviation Accident Prevention

6–1. Purpose
The goal of the Army Aviation Accident Prevention Program is to promote the accomplishment of the Army mission through safe and efficient utilization of army aircraft and other aviation assets.

6–2. Responsibilities
All aviation units operating at MAAF or within the R-4301 must have a Safety Officer and a Safety NCO designated. Those individuals designated will be annotated on the Camp Ripley Aircrew Member Safety Briefing Sheet and maintained on file in Airfield Operations.

6–3. Operational Hazard Report (OHR)
All personnel are required to report any hazards affecting or with the potential to affect aviation safety. Report all hazards observed in flight to MAAF Tower or Operations. Reports of unsafe range conditions should be reported immediately to Range Control on 36.1 FM. A follow up OHR should be submitted in each case after landing.

6–4. Foreign Object Damage (FOD) Prevention
   a. All aviation units utilizing MAAF facilities must have a formal FOD prevention and tool accountability control program. As a minimum, these programs will conform to the guidelines outlined in DA PAM 385-90.
   b. Tenant units are responsible for ensuring all assigned maintenance and aircraft parking areas are checked on a daily basis for FOD.
6–5. Accident Reporting and Investigation

a. What to Report
   (1) Types of accidents or incidents to be reported that occur:
      (a) Within the boundaries of the CRTC;
      (b) While under positive control by MAAF Tower;
      (c) While utilizing MAAF flight following services while outside the CRTC.
   (2) This refers to all incidents, including but not limited to:
      (a) Flight Accidents. Those accidents in which flight or intent for flight exists, and there is reportable damage to the aircraft itself. Explosives, chemical agent, or missile events that cause damage to an aircraft with intent for flight are categorized as flight accidents to avoid dual reporting.
      (b) Flight-related Accidents. Those aircraft accidents in which flight or intent for flight exists, with no reportable damage to the aircraft itself, but the accident involves a fatality, injury to aircrew, ground crew, passengers, or other injury or property damage. For example: unintentional cutting of a hoist cable; failure or malfunction of a hoist system to include related equipment; unintentional jettisoning of cargo hook load or external stores.
      (c) Aircraft Ground Accidents. Injury or property damage accidents involving aircraft in which no intent for flight exists and the engine(s) is in operation (an installed aircraft auxiliary power unit (APU) is not considered an aircraft engine).
      (d) Ground Accidents. Any accident exclusive of aviation (flight/flight related/aircraft ground/UAS) (for example, AMV, ACV, PMV, marine).

b. Initial Reporting Procedures
   (1) Notify MAAF Tower or Operations via 126.2 VHF, 254.4 UHF, or 800 MHZ. Call 320-616-2781 / 2779 as soon as time and safety permits.
   (2) Provide a brief description of the incident.
   (3) Request assistance as required.
   (4) Identify other agencies that have been notified (i.e., Range Control, Post Security, etc.).
   (5) Provide point of contact information regarding the accident or incident.

c. All accident reporting and investigation must be completed in accordance with AR 385-10 and DA PAM 385-40.

d. Refer to 4-20 of this publication for additional information regarding UAS accident and incident reporting.

e. The MAAF Pre-accident Plan is the primary battle drill. Units conducting training at Camp Ripley will provide POC information to MAAF Operations prior to conducting any aviation training.

Chapter 7
Physical Security

7–1. Miller AAF Physical Security Plan
This plan is an excerpt from the Miller AAF SOP. It indicates policy standards and minimum security procedures that will be utilized by the tenant units for safeguarding unclassified and other non-sensitive DOD supplies and equipment at MAAF.

7–2. Physical Security Measures
   a. The following restrictions and physical security measures will be followed by all units utilizing MAAF facilities.
      (1) Level 1 Physical Security Measures in accordance with AR 190-51 will be utilized to secure runways, ramp areas, control tower, hangars, buildings, aircraft and equipment at MAAF.
      (2) Personnel access is restricted to use by aviation personnel in training and other non-aviation personnel as authorized by airfield operations.
(3) Vehicular control procedures established in Chapter 5 para 5-3 of this publication apply to all personnel operating at MAAF.

b. During those times when airfield operations is closed, all airfield activities will be coordinated with Camp Security at 320-632-7375 / 7339.

7–3. Physical Security Procedures

a. Aircraft/Component Security Procedures
   (1) Tenant units must check unit aircraft individually once each day for security.
   (2) Attack aircraft having only launch tube and traversing unit armament components attached may be secured by patrols having the aircraft under general surveillance. If all components of the weapon system are installed on the aircraft, equipment will be under the continual surveillance by the owning unit.
   (3) Army aircraft will be secured with manufacturer installed or MWO approved ignition and door locking security devices when not in use.
   (4) Auxiliary power units for starting aircraft, tugs, aircraft maintenance ladders, tools and equipment that might be used to circumvent existing security measures must be secured during non-duty hours to prevent unauthorized use.

b. Vehicle Security Procedures
   (1) Tactical vehicles parked in designated areas of the airfield will be secured by activating the door and ignition locking devices as installed or as specified in the vehicle operators instructions and in accordance with TB 9-2300-422-20.
   (2) POL tanker vehicles will be secured by locking the hatch cover, manifold access doors and securing manufacturer installed ignition and door locking devices when not in use. Tankers will be parked only in approved areas located on the airfield property which have been designated with the appropriate no smoking signs and are equipped with grounding rods that have been marked and tested for this use. POL vehicles will remain grounded to these points at all times when parked in these designated areas.

c. Night Vision Devices
   (1) Night vision devices will be placed under double lock and key when not in use.
   (2) Tenant units are responsible for ensuring the security and accountability of their own NVDs.

7–4. Security Responsibilities of Facilities by Tenants

a. MAAF Operations personnel are responsible for ensuring that a joint inspection of drawn buildings and equipment is conducted prior to acceptance of the facility by the tenant unit.
   b. A similar inspection will be conducted by Operations personnel and the tenant facility hand receipt holder prior to its return.
   c. Any discrepancies between the two inspections will be brought to the immediate attention of the airfield commander or his designated representative.
   d. Tenant units are responsible for ensuring the security and prevention of damage to government buildings, furniture and to furnishings along with other stored equipment whenever occupying premises where said items are kept.
   e. Units must make a verbal report of all known or reported damage, intentional or otherwise, immediately to airfield operations. This report will be followed by a full written description of damages along with an explanation of the circumstances resulting in the damage prior to the tenant unit clearing the facility.
Appendix A

References

AR 40–8
Temporary Flying Restrictions Due to Exogenous Factors Affecting Aircrew Efficiency

AR 95–1
Flight Regulations

AR 95–23
Unmanned Aircraft System Flight Regulations

AR 95–27
Operational Procedures for Aircraft Carrying Hazardous Materials

AR 190–11
Physical Security of Arms, Ammunition, and Explosives

AR 190–30
Military Police Investigation

AR 200–1
Environmental Protection and Enhancement

AR 385–10
Army Safety Program

AR 385–63
Range Safety

AR 525–27
Army Emergency Management Program

AR 600–55
The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing)

AR 750–43
Army Test, Measurement, and Diagnostic Equipment

ATP 5–19
Risk Management

DA PAM 40–501
Army Hearing Program

DA PAM 40–503
Industrial Hygiene Program

DA PAM 385–10
Army Safety Program

DA PAM 385–11
Army Guidelines Safety Color Codes, Signs, Tags and Markings

DA PAM 385–30
Risk Management
DA PAM 385–40
Army Accident Investigations and Reporting

DA PAM 385–63
Range Safety

DA PAM 385–90
Army Aviation Accident Prevention Program

DA PAM 738–751
Functional User’s Manual for the Army Maintenance Management System-Aviation (TAMMS–A)

TB 9-2300-422-20
Security of Tactical Wheeled Vehicles

TC 3-04.4
Fundamentals of Flight

TC 3-04.11
Commander’s Aviation Training and Standardization Program

TC 3-04.16
Airfield Operations

TC 3-04.61

TC 3-04.62
Small Unmanned Aircraft System Aircrew Training Program
Appendix B
Controlled Movement Areas
Appendix C
MAAF Diagram
LETTER OF AGREEMENT
BETWEEN
RAY S. MILLER ARMY AIRFIELD (MAAF)

SUBJECT: LOA FOR AERIAL TRAINING WITHIN CAMP RIPLEY AND RESTRICTED AREA 4301 (R-4301)

1. PURPOSE: This agreement outlines the responsibilities of Miller Army Airfield (MAAF) staff and aviation units or civilian agencies or the pilot in command of a civilian aircraft prior to conducting activities at Camp Ripley and R-4301.

2. CANCELLATION: This agreement will be terminated one year after the signature date.

3. SCOPE: All Aviation training activities within the boundaries of Camp Ripley and R-4301.

4. RESPONSIBILITIES: Units/PIC’s training, will ensure a signed copy of this LOA is on file at MAAF operations prior to training. MAAF personnel will file the LOA’s and ensure all policies have been met prior to units training within Camp Ripley or R-4301. MAAF personnel will discard all LOA’s at the end of each calendar year and will advise units that new LOA’s are needed for the upcoming calendar year.

5. PROCEDURES:
   a. Military units, civilian agencies or a designated unit trainer will receive the annual Miller Army Airfield Safety briefing in person, review the Camp Ripley 95-1 and Camp Ripley Range SOP.
   b. Military unit commanders or civilian department heads will ensure all personnel involved with flight activities have been properly trained on Camp Ripley’s regulations and have received the MAAF safety briefing. Unit Commanders or civilian department heads will be allowed to sign an LOA for their entire unit/department, if a designated unit trainer will be training their units.
   c. The unit is required to keep documentation proving training was completed and will have to show documentation in the event of an incident or accident.
   d. Individual aircraft or units will be allowed to land one time at MAAF without an LOA on file. Prior to any further flight training the Pilot in Command (PIC) or unit, will receive required briefs and complete this LOA.
   e. Aircrews, units, or PIC’s will ensure a request for training has been sent to MAAF operations. This request will have at a minimum, date, time, training to be conducted and services needed. MAAF personnel will enter this training into RFMSS and ensure that the training will not conflict with other military operations. MAAF personnel will contact units/agencies to de-conflict any scheduling issues prior to training.
   f. Transient flights landing at MAAF for personnel or cargo drop off/pick up only, will not be required to have an LOA on file. They will be permitted to enter and exit the class D airspace as long as no additional training is taking place at Camp Ripley. These flights still require a PPR to be on file with MAAF operations.

6. EFFECTIVE DATE: ________________

(Name) ___________________________ SHAUN G. MELING
(Unit) ___________________________ MAJ, AV, MNARNG
(Signature) ________________________ Airfield Manager
(Date) ____________________________

☐ (Check if signing for entire unit or agency)