

I have compiled rules, laws, and guidelines that we are “exposed” to flying model airplanes at Waymer. I say exposed since many are not law or even rule and many are commonly ignored. I have added bolding and comments. Please note that these are ever changing and that the FAA and other groups are continually trying to change them. **If you have read previous versions I have created the changes from previous version are pages 1-3 and the highlighted portions of the summary on the last page.** The current FAA rules for recreational fliers is 91-57C - Exception for Limited Recreational Operations of Unmanned Aircraft. Many things that were considered recreational are now questionable such as beyond line of sight FPV, night flying and flying aircraft over 55lb. Many of the requirements, including federal, can be found at the AMA website however, because of frequent confusing document updates the information could be dated. Many of the organizations issuing documents do not date them or include revision dates.

From the FAA, these can be **considered law** and they are available at;  
[AC 91-57C - Exception for Limited Recreational Operations of Unmanned Aircraft – Document Information \(faa.gov\)](#)

To fly under the exception for recreational flying you must:

- Fly for hobby or recreation or for educational or research purposes
  - Fly within programming of a community based organizations safety guidelines (**CBO, the only currently recognized one is the AMA**)
  - Fly within visual line of site. **The use of a visual observer is optional per this document.**
  - The aircraft is operated in a manner that does not interfere with and gives way to any manned aircraft.
  - There are specific requirements for authorizations to fly in Class B, Class C, or Class D airspace or within the lateral boundaries of the surface area of Class E airspace designated for an airport
  - The operator has passed an aeronautical knowledge and safety test and maintains proof of test passage to be made available to the Administrator or law enforcement upon request
  - The aircraft is registered and marked in accordance with chapter 441 and proof of registration is made available to the Administrator or a designee of the Administrator or law enforcement upon request. Note that under 2.2.8.1 it states all aircraft over 0.55lb and used recreationally must be individually registered however in 2.2.8.2 it states if your over 0.55lb aircraft is used exclusively for recreational purposes the singular owners registration number can be used. Also in this section aircraft over 55lb must be individually registered.
  - Under section 3.3.2.1 there are specific “recommended safety guidelines” to include;
    - Adequate protections and mitigations to prevent the UA from causing harm to any person
    - Prohibition on modifying UA and the carriage of hazardous materials or weapons
    - Prohibition on engaging in careless or reckless behavior
    - Airspace restrictions and prohibitions
    - Preflight safety
    - In-flight safety
    - Post-flight safety
- **I expect these to be covered within future CBO (AMA) safety guidelines**

- FPV. The following “guidelines” are listed in the document concerning CBO (AMA) safety guidelines.
  1. Guidelines that FPV flyers be proficient in operating their UA without FPV equipment prior to starting FPV flights.
  2. Guidelines for preflight inspections of the FPV device’s video, control, power source, and mechanical systems before each flight.
  3. Guidelines for Visual Observers (VOs) during FPV operations to watch the UA, and the surrounding airspace at all times to ensure safe operations. Guidelines for the responsibilities of VOs may include guidance, such as informing the observer how to maintain VLOS with the aircraft at all times, scan the surrounding airspace for hazards, and be able to see the aircraft with unaided vision, except in the case of vision that is corrected by the use of eyeglasses or contact lenses. Vision aids, such as binoculars, may be used only momentarily to enhance situational awareness.
  4. Guidelines about co-location of VOs with the FPV flyer, such as requiring VOs to be in direct communication with the FPV flyer without the use of technological assistance and without creating a distraction to the recreational flyer.
  5. Guidelines for the ability of the FPV flyer to see the aircraft throughout the entire flight. **Note under recreational flying the aircraft must stay within visual range of the pilot and/ or observer. Note it appears that aircraft operating beyond visual line of sight cannot be considered recreational and must be operated in accordance with part 107.**
  6. Guidelines for communications, such as requiring that the FPV flyer and VOs have preplanned communications and procedures to ensure the UA 10/20/22 AC 91-57C 3-5 remains under control and within VLOS during any event when the safe operation of the aircraft is in question.
  7. If the CBO wishes to address FPV operations for UA more than 55 pounds in its safety guidelines, the FAA recommends the CBO develop guidelines specific to such operation. **Note it appears that aircraft over 55lb cannot be considered recreational and must be operated in accordance with part 107.**
  
- In section 3.3.2.4 there are requirements that the CBO have specific “guidelines” for a comprehensive set of safety guidelines that should include guidance for UA maintenance, inspections, and minimum conditions for safe operations to ensure recreational flyers are taking proper care of their UA between flights
- In section 3.3.2.5 there are specific requirements (note guidelines is not used in this section) for night flights including FPV night flights. Within the section it “strongly recommends” that CBOs develop safety guidelines that include equipping aircraft with anti-collision lighting visible to 3 statute miles and arrange in a way to determine orientation and flight path.
- In section 3.3.2.6 there are specific guidelines for the flyers medical condition including;
  - Alcohol and drug use
  - Illness
  - Medication
  - Stress
  - Alcohol
  - Fatigue
  - Emotion
- In section 3.3.2.7 there are specific guidelines for emergency procedures including:
  - Loss of radio signal or control

- Loss of power or propulsion
  - Loss of navigation (GPS or loss of sight)
  - Instrumentation losing performance
  - Unanticipated people or aircraft entering the area of operation
  - Parts or attachments falling from the aircraft
  - Electrical, battery or component fires
  - Unexpected weather
  - Recommendation for a comprehensive incident reporting program
  - In section 3.3.2.9 there are specific guidelines for specific types of operations including;
    - Aircraft over 55lb
    - Turbine powered aircraft
    - Combat simulations
    - Racing
    - Aerobatics
    - Training
    - Research conducted at institutions of higher education
- **It notes in this section that some of these activities may not be considered recreational**
- 3.4 discusses applications for fixed sites. While not all fixed sites will be considered FRIAs all FRIAs appear to be considered fixed sites.

In addition to AC 91-57C the following are good sources of information;

DRONE RESPONSE PLAYBOOK FOR PUBLIC SAFETY. This is designed for law enforcement and others.  
Available at;

[Drone Response Playbook For Public Safety \(faa.gov\)](https://www.faa.gov/uas/drone-response-playbook-for-public-safety)

Supplement to the Drone Response Playbook for Public Safety. Available at;

[Supplement to the Drone Response Playbook for Public Safety \(faa.gov\)](https://www.faa.gov/uas/drone-response-playbook-for-public-safety-supplement)

Note: At [Recreational Flyers & Modeler Community-Based Organizations | Federal Aviation Administration \(faa.gov\)](https://www.faa.gov/uas/recreational-flyers) it says “Recreational flyers **are encouraged** to take and pass TRUST at their earliest opportunity and carry proof of passage when flying.”. However at [The Recreational UAS Safety Test \(TRUST\) | Federal Aviation Administration \(faa.gov\)](https://www.faa.gov/uas/recreational-flyers) it says “**The law requires** that all recreational flyers pass an aeronautical knowledge and safety test and provide proof of passage if asked by law enforcement or FAA personnel.”.

Note: At [Remote ID for FAA-Recognized Identification Areas \(FRIAs\) | Federal Aviation Administration](https://www.faa.gov/uas/remote-id), there is the following concerning remote identification. Waymer will be registered through the AMA and FAA as a FRIA site.

From the AMA Safety Code, these can be considered guidelines and are available at;  
<http://www.modelaircraft.org/files/105.pdf>

These are the community-based safety guidelines referred to in the FAA rules. Note that these are guidelines and not rule of law (it is confusing as the AMA calls them guidelines though the FAA has codified them into their Special rule for model aircraft). These were put on the AMA web site on 2/7/2018 and are simplified from the older version. Note that AC 91-57C requires that CBOs include a large number of additional “guidelines” in the safety documents or guidelines so these are expected to change significantly.

A model aircraft is a non-human-carrying device capable of sustained flight **within visual line of sight of the pilot or spotter(s)**. It may not exceed limitations of this code and is intended exclusively for sport, recreation, education and/or competition. All model flights must be conducted in accordance with this safety code **and related AMA guidelines**, any additional rules specific to the flying site, **as well as all applicable laws and regulations**.

**As an AMA member I agree:**

- I will not fly a model aircraft in a careless or reckless manner.
- I will not interfere with and will yield the right of way to all human-carrying aircraft using AMA’s See and Avoid Guidance and a spotter when appropriate.
- I will not operate any model aircraft while I am under the influence of alcohol or any drug that could adversely affect my ability to safely control the model.
- I will avoid flying directly over unprotected people, moving vehicles, and occupied structures.
- **I will fly Free Flight (FF) and Control Line (CL) models in compliance with AMA’s safety programming.**
- I will maintain visual contact of an RC model aircraft without enhancement other than corrective lenses prescribed to me. When using an advanced flight system, such as an autopilot, or flying First-Person View (FPV), I will comply with AMA’s Advanced Flight System programming.  
NOTE: AMA 550 2d states- All FPV flights require an AMA FPV pilot to have an AMA FPV spotter next to him/her maintaining VLOS with the FPV sUAS throughout its flight.
- I will only fly models weighing more than 55 pounds, including fuel, if certified through AMA’s Large Model Airplane Program.
- I will only fly a turbine-powered model aircraft in compliance with AMA’s Gas Turbine Program.
- I will not fly a powered model outdoors closer than 25 feet to any individual, except for myself or my helper(s) located at the flightline, unless I am taking off and landing, or as otherwise provided in AMA’s Competition Regulation.
- I will use an established safety line to separate all model aircraft operations from spectators and bystanders.

**Waymer Area Chapter of the AMA (WACAMA) rules.** These are specific to Waymer field and can be considered rules and you could be asked to leave or a Park Ranger or Police could cite or arrest you. The highlighting is from the [www.wacama.com](http://www.wacama.com) page and not added by me.

## Safety Rules

1. No pitting on the Flight Line Areas. (R/C or control line)
2. No spectators in Flight Area – Flyers only - Must Have AMA membership
3. No engines started in Shelter Area
4. Keep in Frequency Control. (72 or 75MHz R/C)
5. Fly from designated flight stations – Not standing near the runway. (R/C)
6. The [AMA Safety Code](#) applies.

## Rules / Regulations

1. Flying is permitted only during posted park hours. (**posted hours are dawn to dusk**)
2. Any person who flies on the site must show a current WACAMA park pass plus current Academy of Model Aeronautics (AMA) membership. The Park Pass must be displayed. **Visitors may fly up to three visits with AMA card only.** Visitors must display AMA card.
3. All aircraft, both control line and radio control, powered by an internal combustion engine must be flown with an effective muffler attached to the engine.

Exceptions:

A. When flying an aircraft that is used in competition for the following events as defined in the AMA rulebook:

- A. CL Combat
- B. CL Racing
- C. CL Speed
- D. CL Navy Carrier
- E. RC Formula 1 Pylon Racing.

This exception applies to aircraft being flown in competition.

- B. Engines of sizes .051 cubic inches and smaller are not required to have a muffler.
  - C. **Fuel turbine, pulse jet**, Jet-X or rocket-assist are prohibited.
4. Airplanes that are landing have the right-of-way over those waiting to take off. Any airplane that has an in-flight emergency has the right-of-way over all others.
  5. All non 2.4Ghz (**72 and 75MHz**) transmitters shall be placed in the impound area as soon as you arrive at the flying site, and remain there except when flying or testing your aircraft. Under no conditions should the transmitter be turned on unless the proper frequency control is observed. Always be sure the frequency you are about to use is clear before flying. Frequency code **(s)** must be displayed on the transmitter. [Link](#)
  6. All R/C flying shall be in front of (**east of**) the flight line and is limited to the runways and open field opposite the runway area. Do not fly beyond the boundaries of the park.
  7. Aeromodelers shall yield airspace to full-scale aircraft.
  8. Parking is allowed **only in the parking lot**. **Unloading and loading of aircraft at the shelter is allowed, please return your vehicle to the parking area once unloading or loading is finished.**
  9. Spectators must remain in designated areas.
  10. No starting engines under the shelter or in the parking lot.

**Additionally the following park pass holder responsibilities are sent to all Park Pass Holders. Failure to follow these could result in loss of flying privileges.**

Key Holder Responsibilities-

The main gate has WACAMA lock. When either gate is open it must be locked in the open position to prevent inadvertent closing of the gate. Before leaving the field, verify if anyone remaining has a key for the locks. Please ask to see the key. The last key holder to leave must ask anyone remaining to remove their vehicle in the parking area. They may park along Holbrook's Road. No vehicles or equipment is to be left on the field or in the parking area overnight. The last key holder to leave must lock the main entrance in the closed position.

**Parks and Recreation rules at**

<https://www.mecknc.gov/ParkandRec/InsideTheDepartment/Documents/Park%20and%20Recreation%20Facilities%20Ordinance050713.pdf>. These can be considered rules and you could be asked to leave, cited or arrested for violations.

The P&R rules are many pages. The more pertinent rules are listed here.

\$ 50.00 SECTION 5: No person shall willfully and intentionally remove, destroy, cut down, scar, mutilate, injure, take or gather in any manner any tree, flower, fern, shrub, rock, artifact or other plant or mineral in any park unless authorized by permit.

\$ 50.00 SECTION 6: No person shall willfully and intentionally in any manner injure, deface, disturb, destroy, or disfigure any part of any park or any building, sign, equipment or other property found therein.

\$ 50.00 SECTION 10: No person shall deposit in any part of any park any garbage, sewerage, refuse, waste, fruit, vegetables, foodstuffs, boxes, tin cans, glass, crockery, paper, or other litter or other waste material or obnoxious material, except in the containers designated for such purpose.

\$ 20.00 SECTION 17: No person in a park shall fail to comply with all applicable provisions of the motor vehicle laws of the State and ordinances of the County in regard to equipment and/or operation.

\$50.00 SECTION 18: No person shall fail to obey police officers, park personnel or other persons designated by the County to enforce this Ordinance in regard to traffic direction in a park.

\$ 50.00 SECTION 19: No person shall fail to observe and comply with all traffic and park regulatory signs, including but not limited to those indicating speed, direction, caution, stopping or parking.

\$ 50.00 SECTION 20: No person shall drive a vehicle in a park in excess of the posted speed limit.

\$ 50.00 SECTION 23: No camp shall be maintained in any park except under permit, and under such conditions, at such places, and for such periods as may be designated by the Director.

\$ 100.00 SECTION 27: No person within the confines of any park shall hunt, pursue, trap, shoot, injure, kill, harass or molest in any way, any bird or animal except by permit.

\$ 500.00 SECTION 29: No person except duly authorized local, State or federal law enforcement officers, and duly authorized County employees or officers shall carry, possess or discharge any type of firearm, handgun, explosive device, air guns of any description (BB guns, paintball guns, pellet guns etc.), or bowie knife, dirk, dagger, slung shot, sling shot, leaded cane, switchblade knife, blackjack, metallic knuckles, razor, shurkin, stun gun, or deadly weapon as defined in the North Carolina General Statutes

within any park unless authorized by permit issued by the Director or except as provided in SECTION 29.1.

SECTION 29.1: The prohibition in SECTION 29 does not apply to carrying a concealed handgun in accordance with N.C.G.S. 14-415.11 in any place in a Park.

§ 100.00 SECTION 34: Selling, Soliciting, and Exhibiting. It shall be unlawful for any person, firm or corporation to engage in commercial selling, soliciting, demonstrating, exhibiting or other commercial activity, for any purpose, without having in their possession a valid permit issued by the Director as hereinafter provided

§ 50.00 SECTION 37: Alcoholic Beverages. It shall be unlawful for any person to possess an open container of malt beverage or unfortified wine, to consume malt beverages or unfortified wine, or to possess or consume fortified wine, spirituous liquor, mixed beverages on property subject to the jurisdiction of this Ordinance unless obtained pursuant to a special consumption permit issued by the Director.

§ 50.00 SECTION 38: No person in a park shall willfully and intentionally disobey a lawful order of a law enforcement officer, park personnel or volunteers authorized to enforce this Ordinance, nor use abusive, profane or insulting language; nor unreasonably disturb or annoy others; nor be under the influence of intoxicants; nor do any act tending to or amounting to a breach of the peace nor conduct himself in any disorderly manner whatsoever.

**From the following Waymer is a no smoking area.**

<https://www.mecknc.gov/ParkandRec/InsideTheDepartment/Documents/No%20Tobacco%20Use%20in%20Parks%20Ordinance.pdf>

§ 25.00 Smoking and the use of tobacco products are prohibited.

**Last we have the FCC and it's rules of law.** Failure to abide by these carry severe fines and penalties. Fines noted on the FCC site range from 10's of thousands of dollars to 100's of thousands of dollars.

These rules are complicated and the best description is from the AMA website.

<http://www.modelaircraft.org/files/590.pdf>

Condensed portions are below along with my researched interpretations-

Most radios included within model aircraft control systems are certified by the equipment manufacturer or vendor for low-powered, license exempt operations on frequency bands authorized under Part 15. On the other hand, because of power restrictions, **very few First Person View (FPV) video systems are certified for licensed use under Part 15** and may be operated only with an Amateur Radio license as described below.

Model aircraft devices and other transmitting equipment operated without a license under Part 15 of the FCC regulations must be certified for compliance with certain technical standards designed to limit interference to other devices.

FPV devices typically require more output power than is authorized in Part 15 of the FCC regulations and, as a result, are not certified for unlicensed operations. **The FCC publishes a maximum allowed non certified (our 5.8GHz VTXs are not Part 15 certified) limit of 50mV/m @3m which translates to approximately 1mW for our applications** depending mostly on the efficiency of our antennae.

What this means is that any 5.8MHz VTX usage requires an FCC License. That said we have never, and probably never will, have a visit from the FCC.

**From these the following are taken:**

- Full scale has right of way at all times
- All R/C flying is to be done to the east of the runway
- Please fly from the pilots stations
- Current AMA and park pass are required to fly at Waymer. There are two exceptions. Guests with AMA can fly up to three times. General public without AMA or park pass can fly Wednesday all day and Sunday sunup to 2 pm
- Please lock the gate and charging station when leaving if you are the last key holder
- There is no official 400ft ceiling though it is recommended
- Please park in the parking lot. The area at the shelter is for loading and unloading
- WACAMA is not responsible for individual pilots meeting FAA, FCC, state, county, or other laws, rules or guidelines. While many laws, rules, and guidelines have been compiled here they are not all inclusive and are ever changing.

Notes: WACAMA did not issue Park Passes for 2022 and may not in the future, they consider the key to be your pass.

Mr. Durrah, WACAMA President has stated repeatedly that FAA registration and TRUST completion are required to fly at Waymer though no mention of either are on the WACAMA site. The FAA states conflicting information concerning TRUST. On one site it says it is required by law, on another that it is encouraged.

As a prospective FRIA, recreational pilots flying at Waymer will not be required to have remote identification. **The AMA, as a FAA CBO will fall under increased scrutiny to implement many guidelines at the FRIAs such as aircraft inspections, training programs and requirements for specific operations such as FPV, simulated combat, flight instruction as well as some activities that may fall outside of recreational flying such as beyond visual line of sight flying, aircraft over 55lb and night flying.**

While all written signage and information on the WACAMA site state AMA is required even for guests flying during the Wednesday and Sunday “public” days some including WACAMA officers have stated AMA is not required but have also, at times, said it is.

WACAMA and FAPA take no responsibility in the accuracy of this information.

Evan Doughty

1 December 2022