



Field Operating and Safety Procedures of the Lakeland R/C Club Inc

Revised November 2017

Article 1

Purpose

This document is intended to provide the basic rules for radio controlled equipment (primarily flying models) at the field controlled by the Lakeland RC Club. These rules are designed to provide a consistent understanding amongst the members regarding normal operating procedures and to establish a framework for a safe environment during club activities.

No set of rules are a substitute for common sense. Attention to detail, personal checklists (such as those used in full scale operations), and a patient approach to preparation are but a few of the practices a modeler can exercise that will provide a far safer environment than a thousand rules.

Article 2

Document Control

This document shall be maintained in accordance with the procedures defined in the Club Bylaws.

Article 3

Field Procedures

Proof of Membership at the Field

The Lakeland R/C Club flying field is a private facility. The use of the flying field is limited to Active Members, Associate and Junior Members (who have applied for flying privileges) and guests. Membership definitions are included in the Bylaws.

A member shall be prepared to show proof of AMA and club membership at the field if he or she intends to operate RC equipment.

A person who is not known to the members in attendance at the field should be asked politely for proof of membership (with the exception of club events where “open” flying by AMA members is permitted).

Guests

Non-members may be permitted to use the flying facilities as a guest only when accompanied by an active member, provided the guest is a current member of AMA or has made application for membership in the AMA. The active member assumes all responsibility to assure that the guest and his aircraft comply with the field rules. A guest is limited to three flying sessions in any 12-month period unless they are participating in an Organized Club Activity.

RC Equipment Operating Requirements

Operation of radio transmitters to control vehicles remotely, and aircraft transmitters used in First Person View and telemetry systems are regulated by the FCC under various parts of the FCC Regulations.

An excerpt from AMA Document 590, *Federal Communications Commission Requirements For Model Aircraft Operations* is included below as a summary:

“Under FCC regulations, model aircraft operations generally fall into two categories:

- License-exempt operation under Part 15 of the FCC regulations (“Radio Frequency Devices”): A license is not required.
- Amateur radio operations under Part 97 of the FCC regulations (“Amateur Radio Service”): Individual operators are required to hold an appropriate license.”

Guidance for determining which transmitters fall into these categories can be found in the AMA source document at <http://www.modelaircraft.org/files/590.pdf>

Frequency Control for Transmitters in the 27, 50, 53, 72 and 75 MHz Bands

Whenever operating a transmitter in these frequency bands on the field, the member must have the proper number frequency pin from the club frequency stand *in his possession and visible*. Club members are to exchange their club membership card for their appropriate frequency clip before turning on their transmitter. Guests are to use their AMA card and must be accompanied by a current club member.

When two or more flyers are using the same frequency, it is expected that when a flyer completes a flight, that he offers the frequency pin to the other flyers or return it to the flight line box as soon as his aircraft is parked and the transmitter is turned off.

AMA Document 928, *Frequency Control of Non-2.4 GHz Spread Spectrum R/C Radio Systems* at <http://www.modelaircraft.org/files/928.pdf>, provides information about the channels available in these bands for model use, equipment standards (Gold Sticker labels, or narrowband), and the various colors used to visibly mark a transmitter’s frequency.

Frequency Control for Transmitters in the 2.4 GHz Band

Operation of transmitters in this band requires no frequency control. It is not necessary to post a club membership card in the frequency control box when operating in this band.

New Pilot Qualification

New pilots shall fly under instruction on a buddy box with an experienced flight instructor. As a new pilot approaches competence, he shall be permitted to fly without the support of a buddy box, but remain under the supervision of the instructor.

The privilege of flying independently from an instructor, and being judged “proficient”, is granted upon the instructor making this determination and informing the new pilot of the decision.

A new pilot may ask to skip the instruction phase above and move immediately to the proficiency phase (this scenario would be used by an experienced pilot joining the club).

Mufflers

All engines shall have an effective silencer (muffler) required to meet a sound level of less than 96 dB at 3 meters (10 ft.).

Damages and Midair Collisions

Members who damage the possessions of other members on the field, either by accident or negligence, shall compensate the injured member to his satisfaction. Flying the pattern can minimize the opportunity for midair collisions, but if one occurs, no fault is ascribed to either pilot.

Maiden Flights

If a member desires to test fly a new aircraft or other equipment, he may request that no other aircraft be in the air during that flight.

Field Maintenance

Everyone is responsible to maintain the flying field clear of debris and trash.

The last person leaving the field is responsible to lock the gate – this is vital to maintaining a good relationship with the field owner.

Driving on the access road should be at a speed under 10 MPH, and slower when necessary to prevent damage to the road. Large clouds of dust behind your car mean you are going too fast. Do not drive in wet ruts, and do not drive on the full-scale runway.

Automobile Parking

Cars shall be parked just North of the driveway behind the pit area.

Article 4

Safety Procedures

National Codes

Members shall review and follow the AMA National Model Safety Code (AMA Doc 105) and any other AMA Documents which pertain to Safety, such as the “See and Avoid Guidance (AMA Doc 540-D)”. See www.modelaircraft.org for the latest revisions.

Full Scale Aircraft Avoidance

Sharing the field with full scale aircraft traffic requires extraordinary vigilance to ensure model operation does not interfere with a full-scale aircraft. **Full scale aircraft have priority at all times.**

Members shall take whatever action is necessary to avoid intersecting the path of a full-scale aircraft.

When a full-scale aircraft is landing, taking off, or taxiing on the full-scale runways, members who have airborne models shall orbit the aircraft in the South-East quadrant of the field (see “Safe Orbit Area”, [Figure 1. Lakeland RC Club Field Layout](#))

During those portions of the flying season where a clear view of the full-scale N-S runway is obscured by crops, a watch shall be stationed at the intersection of the full-scale runways, near the Wind Direction Indicator (see Figure 1), who will notify pilots when a full-scale aircraft is using the runway.

Fixed Wing, First Person View, Rotary Wing, Multi-Prop Vehicles and Autonomous Vehicle Operations

Visual Line of Sight from the operator of a model to the model is **always required**, regardless of whether a First-Person View (FPV) system is in use or not. This is required by the Safety Code. It means that visual contact with the aircraft must be maintained without enhancement other than by corrective lenses prescribed for the model aircraft pilot. All RC flying must remain clear of clouds smoke or any other obstruction to the line of sight.

When operation of a model is conducted under an FPV system, such that the pilot view is provided by a camera view from the model, a second fully flight qualified pilot is required to stand or sit with the pilot such that verbal communication between them, and the option to hand off the transmitter, is easily executed. This second pilot is a “spotter”.

Before a flight, the pilot must insure that the spotter understands his/her duties and expectations. The spotter must have sufficient visual acuity and be mature enough to take this responsibility very seriously. A spotter should also be prepared to assist his/her pilot in the event that another model aircraft or spectators become endangered or in turn are perceived to be a danger to the pilot or the pilot’s model aircraft.

All FPV operations shall conform to AMA document “Unmanned Aircraft Operation Utilizing First-Person View” at <http://www.modelaircraft.org/files/550.pdf>. This document specifically requires that “AMA sUAS flights must be conducted in accordance with the AMA National Model Aircraft Safety Code, AMA supplemental rule documents, flying site specific rules, FAA regulations, and any laws relating to sUAS operations (AMA document #105). The reference to FAA regulations is important. Discussions with local FAA representatives point to FAA regulation CFR 107, which is discussed at https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=20516. This document essentially indicates that a pilot flying FPV at the field must have a certification under CFR 107, plus several other requirements. FPV operations at the Lakeland field will conform to these requirements.

Operation of aircraft that generate lift by forward motion, in the presence of models that routinely hover or fly “on the prop” by having more thrust than the vehicle weighs, can be unsettling to all pilots on the flight line. This is because of the perceived higher probability of collision. Pilots should be cognizant of these concerns and communicate to the pilots on the flight line before engaging in “3D” maneuvers over the runway, or hovering over the runway.

If a model aircraft pilot experiences what he or she considers a near miss with a manned aircraft, that model aircraft pilot should notify AMA Headquarters with a written report of the incident, including action taken by the model aircraft pilot to avoid the manned aircraft. This report is intended to help the modeler, the club, and the AMA capture as much detail as possible so that it may be used to assist all parties in recalling the particulars of the incident at a later time. Call 1-800-435-9262 (1-800-IFLYAMA) extension 230 or 251 for assistance with this report.

Pit Safety

The Pit Area is defined in Figure 1.

Engine starting and runups shall occur only in the Pit Area. It is common courtesy to conduct engine break in, or extended periods of ground engine troubleshooting, in the far west end of the Pit Area. If you start a fuel powered engine behind a pilot, let him or her know before starting.

Fuel powered aircraft shall be restrained while starting, either by a mechanical restraint or a helper. Electrically propelled aircraft which weigh more than two pounds shall be restrained while connecting the battery, and when the battery is connected.

Aircraft that have running fuel powered engines, or electrically armed motors, shall be under physical control of the pilot and walked out of the Pit Area to the runway access gates.

Flight Safety

For the safety of spectators and other flyers, flying directly over the Flight Line or Pit Area is prohibited. The Flight Line is defined in Figure 1.

Takeoffs, landings and flybys should be to the South of the 50 Foot Line defined in Figure 1. Takeoffs that begin near the pilot stations should maintain a heading within 45 degrees of an imaginary line drawn perpendicular to the Flight line, until the 25 Foot Line is crossed.

Pilots should fly from the Pilot Stations defined in Figure 1.

Do not fly directly at the Flight Line in front of the pilot stations, at any altitude.

Flying is prohibited when the field is being cut or rolled.

The first pilot up establishes the flying direction, and subsequent flights shall conform to that pattern.

Pilots should make the following announcements during operations:

- Taking the Active Runway - "Taxiing Out!"
- Taking off – "Taking off to the East (West)!"
- Landing, during the downwind leg – "Landing to the East (West)!"
- When going on the field to retrieve something – "On the Field!", and when back at the Pits – "Clear!"

No more than four aircraft are allowed in the air at one time.

Article 5

Severe Violations

Concept

Club members depend upon one another to use common sense when operating RC models, and in the vast majority of cases, they do. This does not imply that a member cannot make an error in judgment – everyone does at one time or another, and usually they learn from it.

To ensure that we continuously improve our collective knowledge of safe practices, and our own competence, this club needs to support an atmosphere in which respectful feedback can be delivered, and open minds will consider that feedback. The fastest way to get a person to stop listening is to yell at them about something that they do not understand. Similarly, the path to a serious safety event is to close your mind to reasonable criticism.

This Article is applicable to violations of Article 4, Safety Procedures, and is to be used when the above methods of improvement, which are taught from kindergarten on up, fail.

Escalation

All members present at the field should consider themselves "Deputy" Safety Officers (DSO).

Should an unsafe situation be observed, a DSO should come forward and provide critical feedback in a respectful and polite manner to the pilot who caused the event. It is expected that the pilot will listen, and give due consideration to the feedback. If the DSO is satisfied with the discussion, the matter is ended.

If, in the estimation of the DSO, the situation remains unresolved, then the DSO should document the event and submit a report to the Safety Officer for further action.

After review of the first report, the Safety Officer may, at his discretion:

- a. Dismiss the Event
- b. Verbally counsel the member
- c. Issue a written warning to the member

In the event a member receives a second report during a calendar year, the report will be reviewed by a Board consisting of all the club officers, and chaired by the Safety Officer. The Board may, at their discretion:

- a. Issue a written warning to the member
- b. Suspend the member's flying privileges for a two-week period (it is expected, during this period, that the member will avail himself of simulators or some other training method to avoid repeating the error again).

On December 31 the Safety Officer shall submit a listing (member, date, event description, actions taken) to the President which documents the written reports submitted in that calendar year.

It is important to note that the documentation of repeated safety events and subsequent actions by the club may be the only legal defense that we have in the event of a serious mishap.

Stay clear of houses to the South!

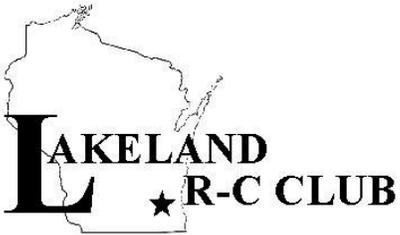
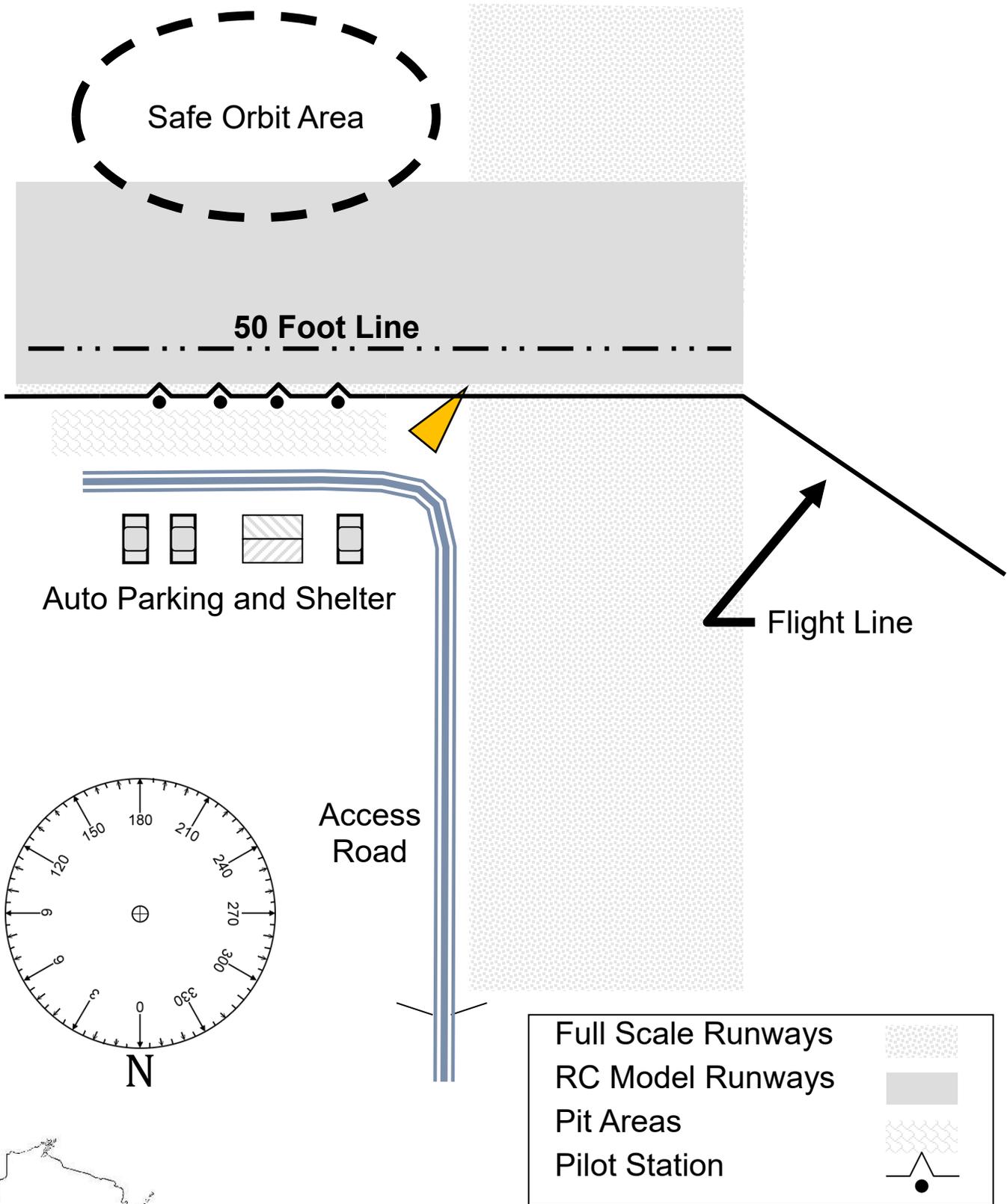


Figure 1. Lakeland RC Club Field Layout