

# Tri-Cities Radio Control Modelers Flying Site Safety and Security Program Guidelines

## I. Introduction

The Tri-Cities Radio Control Modelers (TCRCM) is an Academy of Model Aeronautics (AMA) chartered club that receives liability insurance coverage from the AMA. To receive the insurance, the flying site needs to be configured in accordance with AMA Safety guidelines and the membership must also belong to the AMA. The combination of the charter and the individual membership provides liability insurance for our flying site if the site is designed and operated to the AMA Safety Code. The AMA Safety Code is displayed on the shade shelter and can be seen when entering the site. Figure 1 below is the AMA configuration guideline for flying sites. This document provides the TCRCM Flying Site Safety and Security Program Guidelines of conduct for use of the flying site. Section II is a description of the site Function Layout/configuration, Section III is the Guidelines for Safe use of the Flying Site, Section IV is the Security and Gate Management guidelines, and Section 5 is Emergency Response and Parking. Appendix A is the current AMA Safety Code.

## II. TCRCM Flying Site Functional Layout

- The south side of the runway is the safety line that model aircraft are not to be flown behind. This line extends east and west the entire width of the flying site. This safety line is the "0" reference line for set-back distances as follows:
  - Pilot Line 25 feet from safety line
  - Pit Line 45 feet from safety line
  - Spectator Line 65 feet from safety line
  - Parking lot a minimum of 80 feet from safety line.
  - Protective Barriers
    - Pilot Barrier-The interface between the runway safety line and the Pilot area grass, a two-foot wide tall grass strip is provided to stop and/or slow down model aircraft that may taxi out of control.
    - Pit Area Barrier-The four-foot-tall hog wire fence that separate the pilot area and the pit area is provided to

protect Pit areas users from out of control aircraft during landings and takeoff.

- Spectator Barrier-Temporary removable plastic mesh fence to keep spectators out of the pit area. Signage can be used in place of the fence. Only used during periods of high occupancy.

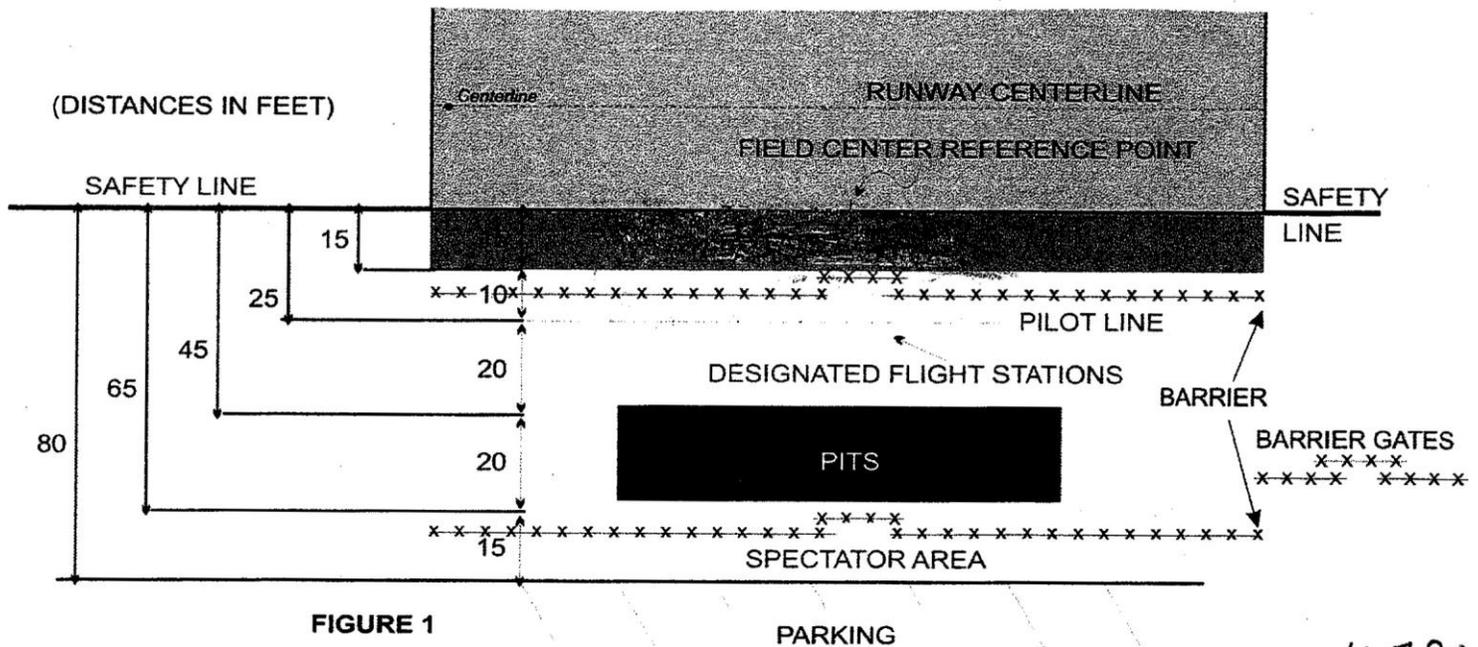
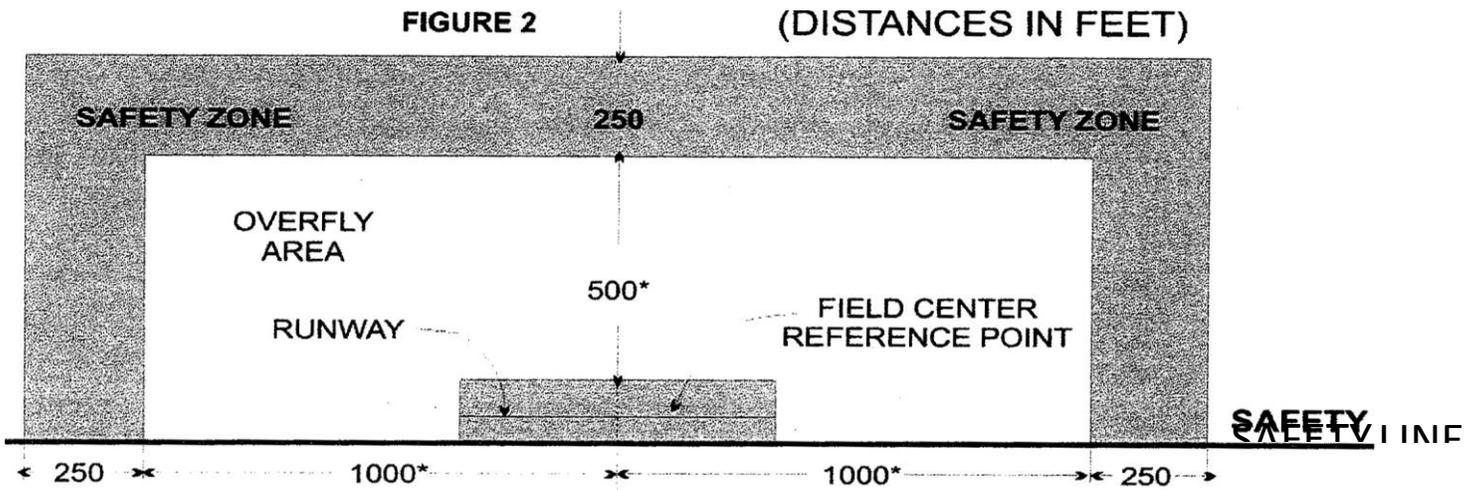


FIGURE 1

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- TCRCM Flying Site Comparison to AMA Guideline (See Figure 2)
  - o The TCRCM runway is much larger than the guideline.
  - o A parallel taxi way to the runway is replaced by 5 taxi ways from the Pit area.
- The safety barrier between the pilot station area and the pits provides better protection to users of the pit area.
- The five pilot stations provide the required distance from the safety line and provides sufficient lateral spacing (side-to-side) o the six starting tables with the nose of the model aircraft directed at the fence provide protection to pit users and spectators.
- The AMA guideline for Overfly Area and Safety Zones are shown in Figure 3. The TCRCM flying site meets these area guidelines. Note that the majority of model aircraft flight is in the 2000' by 500' rectangular area.



### III. Using the TCRCM Flying Site: (supplemental to the posted AMA Safety Code)

- Perform a complete pre-flight of the model aircraft each time you go to the flying site to prepare the model aircraft for flight.
- Vehicle parking is provided outside the perimeter fence and pull carts are available for moving flight boxes and other field support equipment to the pit area.
- Assembly/disassembly of the model aircraft should be performed in the pit area only. Operational checkout is also conducted in the pit area.
- Pit tables are provided for assembly/disassembly, operational checkout, and starting of the model. If the field is busy it may be necessary to share pit tables.
- When the model aircraft has been started (piston engine aircraft), with the engine running, carefully remove the model from the table and place it on taxi way on the runway side of the pit safety fence.
- Flying the Model Aircraft: Taxi the model or have a helper carry it out to the runway and place for takeoff with the model pointing into the wind.
- The pilot needs to stand on or near one of the concrete pilot stations. If a student and instructor are the only users of the flying site, they may stand behind the model during takeoff and then move to the pilot station.
- Flight over the runway should normally be used for landing and takeoffs and practicing of the same. Low fly-bys over the runway are permitted when no one else is flying and/or

the pilot informs other users of their intentions prior to performing the low fly-by.

- If multiple fliers are using the flying site, or if low flying full size aircraft are in the area, the use of a spotter/buddy is strongly encouraged.
- If both winged and rotor craft are using the flying site, the pilots need to communicate to ensure cooperation and safe flying.
- When multiple model aircraft are in the overfly area Pilots/Spotters should announce the following:
  - Taxing on the runway
    - Taking off
  - Take off complete (model has cleared the perimeter fence and entered the overfly area)
  - Entering downwind for landing
- Landing
  - Model clear of the runway (either move to taxiway or have spotter retrieve it)
  - Practicing Landing approach
    - Conduct a touch-and-go.
  - DEAD STICK, DEAD STICK
- 1 DON'T HAVE IT (URRGHHH)
- Overfly Areas: Figure 2 shows the normal size of the overfly areas. It is common for the elevations to exceed 1000 ft and for some of the large scale aerobatic aircraft to approach 1500 ft. These aircraft will at times fly farther out, i.e., north, than 750 ft. It needs to be noted that the outer, farthest north fence of the ORV park borders Department of Energy (DOE) site property and road. If flight over the site occurs the minimum elevation limit is 400 ft, i.e., aircraft must maintain flight above 400 ft. If more information is desired, please use the following link to the AMA Government Relations site:  
<http://amablog.modelaircraft.org/amagov/2017/12/19/fa-a-restrictions-over-doe-facilities/>

#### IV. Security/Gate Management

The flying site is protected by multiple gates, three that are managed by TCRCM and one that is managed by the HRMC. The City of Richland and

the HRMC asked us a few years back to have the two gates with fence control between the gates on both sides of the access road. The access gates that will be used to access the TCRCM flying site are:

- The HRMC gate is the large double gate that is just a few yards off of Highway 240. The HRMC is closed Mondays through Wednesday for use by the public and the gate may be closed, but it will not be locked. The exception to this that if the inner gate to HRMC and Red Dot Paintball is open, the 240 gate is to be left open. It is acceptable for the TCRCM member to open the gate and enter the park, but be sure to close it behind you if the gate to HRMC/Red Dot Paintball is closed. The same is true when you exit the park if the gate is closed. If you find the 240 gate open on these days please check to see if the gate to HRMC/Red Dot Paintball is also open, if not please close the 240 gate.
- The two-flying site access road gates and the entrance gates to the field through the perimeter fence all have combination locks set to the same combination. If you are the last one to leave the flying site be sure to lock all the gates upon exiting, including the double access gate to the flying site. This is true even if there are non-member visitors that are camping overnight in the parking lot. It is also advisable when you open the locks to turn the combination wheels off the opening combination. The mower shed lock, the lock for the transport wagons, and the booster pump house lock use the same combination. The combination is on the renewal sticker from TCRCM. The lock and chain for each of the access road gates also contain a City of Richland keyed lock in series with the TCRCM combination lock, that permit City of Richland Parks Department employees access to the flying site. The HRMC is now managing these keyed locks and has the keys at their office adjacent to the Paint Ball Complex. If the TCRCM combination lock is attached to their lock please make sure you secure it the same as you found it upon leaving the flying site. If for some reason you find the keyed lock no longer in series with the TCRCM lock preventing entry to our flying site please go to the HRMC office and ask for their assistance or contact one of our club officers.

## V. Emergency Response/Parking

The following are requirements from the City of Richland for ORV Park user organizations:

- A first aid kit is provided in the mower shed. It is also recommended that each TCRCM member carry one in their vehicle.
- The flying site double access gates must always be available for passage by emergency vehicles when the flying site is occupied. This requires that no vehicles or other obstacles block this passage when the flying site is in use.
- Wooden railroad ties are located adjacent to the parking lot side of the perimeter fence to identify how close vehicles can park and fliers can still pass by them with their field support equipment. This includes a short access area adjacent to the rest room.
- Recreation Vehicle parking is not permitted along the perimeter fence but is permitted on the south side of the parking lot.
- Parking of vehicles is not permitted in the flying site, unless being used to support field maintenance and repair of irrigation systems or structures.

### Appendix A: AMA Model Aircraft Safety Code

Academy of Model Aeronautics National Model Aircraft Safety Code

Effective January 1, 2014

A. GENERAL: A model aircraft is a non-human-carrying aircraft capable of sustained flight in the atmosphere. 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 any additional rules specific to the flying site.

1. Model aircraft will not be flown:

- (a) In a careless or reckless manner.
- (b) At a location where model aircraft activities are prohibited.

2. Model aircraft pilots will:

- (a) Yield the right of way to all human-carrying aircraft.
- (b) See and avoid all aircraft and a spotter must be used when appropriate. (AMA Document #540-D.)

(c) Not fly higher than approximately 400 feet above ground level within three (3) miles of an airport without notifying the airport operator.

- (d) Not interfere with operations and traffic patterns at any airport, heliport or seaplane base except where there is a mixed use agreement.

- (e) Not exceed a takeoff weight, including fuel, of 55 pounds unless in compliance with the AMA Large Model Airplane program, (AMA Document 520-A.)
- (f) Ensure the aircraft is identified with the name and address or AMA number of the owner on the inside or affixed to the outside of the model aircraft. (This does not apply to model aircraft flown indoors.)
- (g) Not operate aircraft with metal-blade propellers or with gaseous boosts except for helicopters operated under the provisions of AMA Document #555. (h) Not operate model aircraft while under the influence of alcohol or while using any drug that could adversely affect the pilot's ability to safely control the model.

(i) Not operate model aircraft carrying pyrotechnic devices that explode or burn, or any device which propels a projectile or drops any object that creates a hazard to persons or property.

Exceptions:

- Free Flight fuses or devices that burn producing smoke and are securely attached to the model aircraft during flight.
- Rocket motors (using solid propellant) up to a G-series size may be used provided they remain attached to the model during flight. Model rockets may be flown in accordance with the National Model Rocketry Safety Code but may not be launched from model aircraft.
- Officially designated AMA Air Show Teams (AST) are authorized to use devices and practices as defined within the Team AMA Program Document. (AMA Document #718.)

(j) Not operate a turbine-powered aircraft, unless in compliance with the AMA turbine regulations. (AMA Document #510-A.)

3. Model aircraft will not be flown in AMA sanctioned events; air shows or model demonstrations unless:

- (a) The aircraft, control system and pilot skills have successfully demonstrated all maneuvers intended or anticipated prior to the specific event.
- (b) An inexperienced pilot is assisted by an experienced pilot.

4. When and where required by rule, helmets must be properly worn and fastened. They must be OSHA, DOT, ANSI, SNELL or NOCSAE approved or comply with comparable standards.

#### B. RADIO CONTROL (NC)

1. All pilots shall avoid flying directly over unprotected people, vessels, vehicles or structures and shall avoid endangerment of life and property of others.
2. A successful radio equipment ground-range check in accordance with manufacturer's recommendations will be completed before the first flight of a new or repaired model aircraft.
3. At all flying sites a safety line(s) must be established in front of which all flying takes place. (AMA Document #706.)

- (a) Only personnel associated with flying the model aircraft are allowed at or in front of the safety line.
  - (b) At air shows or demonstrations, a straight safety line must be established.
  - (c) An area away from the safety line must be maintained for spectators. (d) Intentional flying behind the safety line is prohibited.
4. RC model aircraft must use the radio-control frequencies currently allowed by the Federal Communications Commission (FCC). Only individuals properly licensed by the FCC are authorized to operate equipment on Amateur Band frequencies.
  5. RC model aircraft will not knowingly operate within three (3) miles of any pre-existing flying site without a frequency-management agreement. (AMA Documents #922 and #923.)
  6. With the exception of events flown under official AMA Competition Regulations, excluding takeoff and landing, no powered model may be flown outdoors closer than 25 feet to any individual, except for the pilot and the pilot's helper(s) located at the nightline.
  7. Under no circumstances may a pilot or other person touch an outdoor model aircraft in flight while it is still under power, except to divert it from striking an individual.
  8. RC night flying requires a lighting system providing the pilot with a clear view of the model's attitude and orientation at all times. Hand-held illumination systems are inadequate for night flying operations.
  9. The pilot of an RC model aircraft shall:
    - (a) Maintain control during the entire flight, maintaining visual contact without enhancement other than by corrective lenses prescribed for the pilot.
    - (b) Fly using the assistance of a camera or First-Person View (FPV) only in accordance with the procedures outlined in AMA Document #550. (c) Fly using the assistance of autopilot or stabilization system only in accordance with the procedures outlined in AMA Document #560.

#### c. FREE FLIGHT

1. Must be at least 100 feet downwind of spectators and automobile parking when the model aircraft is launched.
2. Launch area must be clear of all individuals except mechanics, officials, and other fliers.
3. An effective device will be used to extinguish any fuse on the model aircraft after the fuse has completed its function.

#### D. CONTROL LINE

1. The complete control system (including the safety thong where applicable) must have an inspection and pull test prior to flying.
2. The pull test will be in accordance with the current Competition Regulations for the applicable model aircraft category.
3. Model aircraft not fitting a specific category shall use those pull-test requirements as indicated for Control Line Precision Aerobatics.

4. The flying area must be clear of all utility wires or poles and a model aircraft will not be flown closer than 50 feet to any above-ground electric utility lines.
5. The flying area must be clear of all nonessential participants and spectators before the engine is started.