



**THE** **ROCKET CITY RADIO CONTROLLERS, INC.** **NEWSLETTER**



... an AMA Award of Excellence Club!

*Proudly serving the Huntsville community at the Captain Trey Wilbourn Model Airplane Field.*

**P.O. Box 2163**

**Huntsville, AL 35804**

**November 2015**

# **President's Message**

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Welcome:

Well this year has come and gone. This will be my last President's Message. The next meeting we will install the new candidates for the board of directors. I hope that you will give them the same support that you gave our board.

We had the vote on the By Law changes. Out of all the votes 100% voted for the changes. So the new By Laws are on the web site.

The candidates for the new board are on the web site. You can vote at the November meeting or on the web site. But please vote. It is not only your responsibility, but a privilege, and if you don't vote, you should not complain about the direction the club is going.

Remember as winter sets in so does the building season. I guess that there aren't as many builders as in the past. But I still believe that there are dreamers. What is your dream plane for next year? Start dreaming, spring will be here before you know it. Also give your list to Santa, maybe you will find it under the tree at Christmas. Remember when you were a kid, how you wished for something and then on Christmas morning you looked under the tree for it. When you found it remember how you felt? There was no better feeling than at that moment when you opened that gift. Please remember this and give to the Toys for Tots event. An unwrapped toy or a cash donation will help a child who would not normally have a Christmas. If you were unable to make the event, bring your present or monetary gift to the November meeting, it will gladly be accepted.

See you at the field.

John Pieczynski  
President

## Minutes of the October 20, 2015 Meeting

The meeting was called to order by the president. All officers were present. There were not enough members present to declare of quorum. One visitor was present. All previous minutes (minutes of September member meeting and the Board of Directors minutes of September 1 and October 6) were approved. The treasurer's report showed income of \$275.69 and expenses of \$839.42 leaving a regular account balance of \$799.25, a money market balance of \$7684.14 and the Mike Wingo Fund with \$892.50. The treasurer's report was approved. The safety report reviewed a previous injury. The field report went over the mowing schedule for the remainder of the year.

In old business, the president read the Bylaws changes and there was a unanimous vote to adopt those changes. The nominating committee still needs a secretary and field chairman. Toys for Tots has been AMA sanctioned. Alan Berard, the CD, has emailed clubs within a 100 mile radius. There will be fun events, demo flights and door prizes. Lunch will be provided. Bob Walls is assisting. For pilots, the "fee" is a \$25 donation or a toy. Continuing a discussion on First Person View (FPV) flying, a member presented the AMA document #550. A copy of the *Model Aircraft Safety Code* and document #550 are attached to this newsletter.

In new business, a change in the date of the swap meet was needed because it coincided with another club's meet. It was voted that May 7 would be the new date. Also with respect to the national calendar, May 14 is Drone Day and August 13 is National Model Aviation Day.

The webmaster said that there was a server issue with the weather on the web site. On the classified ads part of the website, one does not have to be a member to participate. Pictures of equipment can be uploaded.

**November 3, 2015**

**Board of Directors Meeting**

The presiding officer was Al Blair, vice president, in the absence of the president. Also present were the secretary, the newsletter editor, Bob Templeton and Clarence Hauck. The treasurer was also absent. Future events were discussed. The Toys for Tots event will be November 14<sup>th</sup> with Alan Berard in charge.

It was noted that the ballot for the upcoming election of officers in November was on the website. Also we were reminded that the Swap Meet date has been changed to May 7<sup>th</sup>. Clarence Hauck had a question regarding the Civil Air Patrol students which was deferred due to the absence of the president and treasurer.



**Safety Report** – The safety officer reported no injuries. He stressed that the most danger of personal injury is from a spinning propeller.

**Ensure that spectators are behind the airplane when the motor is running.**



# NEWSLETTER ATTACHMENT

## 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 (RC)**
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 flightline.
  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.

## Radio Controlled Model Aircraft Operation Utilizing “First Person View” Systems

### 1. DEFINITION OF TERMS:

Please refer to the alphabetical listing of the definitions of the terms in italics that are used in this document.

### 2. GENERAL:

*FPV* flying of radio control model aircraft by AMA members is allowed only for noncommercial purposes as a hobby/recreational and/or competition activity and must be conducted in accordance with AMA’s current National Model Aircraft Safety Code and any additional rules specific to a flying site/location.

### 3. OPERATIONS – REQUIREMENTS – LIMITATIONS:

- a) *FPV novice pilots* undergoing training at low altitude must use a buddy-box system with an *FPV spotter*, or must go to a safer altitude if no buddy-box system is used.
- b) All *FPV* flights require an AMA *FPV pilot* to have an AMA *FPV spotter* next to him/her maintaining *VLOS* with the *FPV aircraft* throughout its flight.
- c) The *FPV pilot* must brief the *FPV spotter* on the *FPV spotter’s* duties, communications and hand-over control procedures before *FPV flight*.
- d) The AMA *FPV spotter* must communicate with the *FPV pilot* to ensure the *FPV aircraft* remains within *VLOS*, warning the *FPV pilot* of approaching aircraft, and when avoidance techniques are necessary.
- e) During an *FPV* flight, the *FPV spotter* must be prepared to acquire the transmitter/control from the *FPV pilot* and assume *VLOS* control of the model aircraft at any time safe operation of the flight is in question.
- f) If an *FPV pilot* experiences a safety issue that does not appear to be a brief glitch, they must abandon *FPV* mode and fly *VLOS*.
- g) Before the initial *FPV* flight of an *FPV model aircraft* and/or after any changes or repairs to *essential flight systems*, the *FPV model aircraft* must have an *R/C test flight* by conventional *VLOS*.
- h) *FPV model aircraft* must use frequencies approved by the FCC for both the RC system and the wireless video system. Pilots must meet applicable FCC licensing requirements if they choose to operate the RC flight control system or the wireless video system on Amateur Band frequencies.
- i) AMA *FPV pilots* must first be capable of flying their *FPV* model aircraft manually before utilizing *FPV* flight.

### 4. RANGE – ALTITUDE – WEIGHT – SPEED:

- a) One of the requirements in Federal Law (Public Law 112-95 Sec 336 (c) (2) February 14, 2012) for model aircraft to be excluded from FAA regulations is that model aircraft must be flown within *VLOS* of the operator.
- b) Model aircraft flown using *FPV* must remain at or below 400 feet AGL when within 3 miles of an airport as specified in the AMA Safety Code.
- c) Model aircraft flown *FPV* are limited to a weight (including fuel, batteries, and onboard *FPV* equipment) of 15lbs. and a speed of 70mph.

### 5. RECOMMENDATIONS & INFORMATION:

- a) AMA *FPV novice pilots* should consider using a cockpit view flight simulator to become accustomed to *FPV* flight.
- b) AMA *FPV pilots* should consider using a programmable *autopilot* (AMA Document #560) with a failsafe “return to launch” (RTL) feature that will maintain control of the aircraft in the event of signal loss.
- c) When purchasing *FPV* operational systems, always try to select quality equipment, verify its compatibility, install components for interference rejection, and determine that signal range is adequate for maximum *VLOS* range.

## 6. PRIVACY PROTECTION SAFEGUARDS:

The use of imaging technology for aerial surveillance with radio control model aircraft having the capability of obtaining high-resolution photographs and/or video, or using any types of sensors, for the collection, retention, or dissemination of surveillance data information on individuals, homes, businesses, or property at locations where there is a reasonable expectation of privacy is strictly prohibited by the AMA unless written expressed permission is obtained from the individual property owners or managers.

## 7. DEFINITIONS OF TERMS:

**AMA FPV Pilot** is an AMA member who is capable of maintaining stable flight of a model aircraft within its intended flight envelope when flown FPV without losing control or having a collision.

**Buddy-Box System** is a system that has one transmitter operating as the master controller, while a second transmitter is linked/slaved to it allowing dual control of an aircraft. The operator of the master transmitter allows one or the other transmitter to control the aircraft through the use of a spring-loaded switch. The switch provides instantaneous transfer of control from one transmitter to the other. The buddy-box system is an efficient and effective means of achieving a position transfer of control from one pilot to another.

Although this system is commonly used for training novice fliers, it is also useful in situations where an experienced pilot may have an increased likelihood of needing a second pilot's assistance in maintaining control of the aircraft. The use of the buddy-box may be helpful in assisting pilots with physical limitations, flying in congested environments, during times of reduced visibility, or anytime during FPV when a timely transfer of control may be beneficial.

**Essential Flight Systems** are any systems or components necessary to maintain stable flight within a model aircraft's flight envelope. (This includes primary radio control systems and any stabilization or gyros required to maintain stability and heading in certain types of model aircraft that would be uncontrollable/unstable without their use).

**First Person View (FPV)** refers to the operation of a radio controlled (R/C) model aircraft using an onboard camera's cockpit view to orient and control the aircraft.

**Flight Envelope** is defined as the range of airspeeds, attitudes, and flight maneuvers which a model aircraft can safely perform/operate for its intended use.

**FPV Aircraft** is an RC model aircraft equipped with a video transmitter to send realtime video images from an onboard camera to a ground based receiver for display on a pilot's video monitor/goggles. (*FPV model aircraft* types include: Fixed Wing, Rotary Wing, and Multi-Rotor Platforms).

**FPV Novice Pilot** is an AMA member learning to fly FPV utilizing a buddy-box system with an experienced AMA RC pilot operating the master transmitter and serving as the *FPV spotter*.

**FPV Spotter** is an experienced AMA RC pilot who has been briefed by the *FPV pilot* on the tasks, responsibilities and procedures involved in being a spotter; is capable and mature enough to perform the duties and is able to assume conventional VLOS control of the aircraft.

**Non-Essential Flight Systems** are any systems or components that are not necessary to maintain stable flight within the model aircraft's *flight envelope*. (This includes *autopilot* or *stabilization systems* that can be activated and deactivated in flight by the pilot without affecting stable flight).

**R/C Test Flight** requires an *AMA Pilot* to manually operate an R/C transmitter to control a model aircraft's flight path and determine if the aircraft is capable of maintaining stable flight within its *flight envelope*.

**Visual Line Of Sight (VLOS)** is the distance at which the pilot is able to maintain visual contact with the aircraft and determine its orientation without enhancements other than corrective lenses.



**RCRC NEWSLETTER EDITOR**  
**P.O. Box 2163**  
**Huntsville, AL 35804**

**TO:**

**2015 RCRC EVENTS**

	November 14 <sup>th</sup>	All Day	Toys for Tots	CD: Alan Berard	
<b><u>2016 RCRC EVENTS</u></b>					
	May 7 <sup>th</sup> , 2016	All Day	Swap Meet	CD: Alan Berard	
	May 21, 2016	All Day	Club Day	ED: Vice President	
	June 17, 2016	All Day	Big Bird	CD: Paul Webb	
	July 16, 2016	All Day	Pylon Races	CD: Alan Berard	
	August 19, 20, 2016	All Day	War Bird	CD: TBD	
	September 16, 17, 2016	All Day	AMA Pattern	CD: Jon Lowe	
	November 19, 2016	All Day	Toys for Tots	CD: Alan Berard	

The field will be closed to members on Friday at noon before all field events, except Club Day and Toys for Tots. The field will be released back to the club by CD when the event is finished.