



Radio Controlled Model Aircraft Operation Utilizing "First Person View" Systems

1. DEFINITIONS:

- a) 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.
- b) FPV AIRCRAFT** is an RC model aircraft equipped with a video transmitter to send real-time 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 Platform*)
- c) 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
- d) 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.
- e) 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.
- f) AMA FPV PILOT** is an AMA member who is capable of maintaining control of stability and orientation of FPV model aircraft when flown FPV without losing control or having a collision.

2. GENERAL:

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

3. OPERATIONS – REQUIREMENTS - LIMITATIONS:

- a)** AMA FPV novice pilots must use a buddy-box system with an FPV spotter while learning to fly FPV.
- 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) The FPV spotter may at any time during an FPV flight acquire the transmitter from the FPV pilot and assume VLOS control of the aircraft.
- f) If the FPV pilot experiences a problem due to a loss of video link, orientation, or is unable to safely fly, he/she must abandon FPV mode and fly VLOS or pass the RC transmitter to the FPV spotter to assume VLOS control of the aircraft.
- g) Before initial FPV flight and after any flight system changes or repairs, FPV model aircraft must be test flown by conventional VLOS to determine that flight systems are working properly.
- 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

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 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 point” feature that will maintain control of the aircraft in the event of signal loss.
- c) An onboard camera equipped with a pan and tilt mount that is positioned by “head tracking” goggles, will improve the FPV pilot’s situational awareness of the airspace surrounding the FPV aircraft during flight, but does not replace the requirement for an AMA FPV spotter.
- d) 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:

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

AMA is not and will not be responsible for model aircraft operations conducted outside of AMA’s safety program and will not be held responsible for the actions of these non-participating pilots.
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