

# Bend Aero Modelers



## Flight Report

October, 2016



### Next Meeting



October 26, 2016  
6:30pm At Black Bear Diner  
Food Available  
Come early to visit and eat!

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## October

At the last club meeting, Greg announced that I would not be the Editor for the Flight Report. My last publication will be the November 2016 Issue.

If you are interested in being the next Editor of the Flight Report please let Greg know. If you are selected then I can provide the issues of 2016 in Microsoft Publisher to assist with the setup,



# Show & Tell

There were 3 Show & Tells for the month of September.

Steve Younger brought in a beautiful red Beech Stagerwing from Motion RC (\$162). The aircraft has electric retracts and flaps along with the standard controls. Steve said the manual leaves a bit to be desired. Steve also mentioned the Hobby King receiver was slightly too small to receive all of his servo connectors. Steve hopes to fly it soon.



Dave Reiss brought in a Tower Hobbies UpRoar in the bones. It was interesting to see how a very experienced wood worker approached building a wooden airplane. Instead of the standard butt joints Dave made lap joints. It is a thing of beauty! Too bad Dave has to cover all that work up with covering.

John Wytmsa brought in a very nice charging box that he made from a Harbor Freight tool case. John has installed batteries, charge and adapter boards to the case as well as a myriad of connectors and adapters to charge just about any type of battery system. Please contact John if you are interested in learning more about his design. Very nice!



# Crash Trophy

WELL WELL !!!! I guess you can crash a glider ... Bill Hand evidently had a spectacular crash of his Conscendo glider. But don't worry ... if you look back in previous issues of Flight Report under Show and Tell you will see Bill proudly displaying other gliders (and he has many more too) ... so Bill just needs to dust off one and return to the air.

## TWO WINGS AND A RADIAL

By Tom Schramm

Arriving at the Prineville Airport the two-tone red and white 1942 Stearman was parked on the tarmac in front of the hanger.



After an introduction with the owner/pilot Mr. Kevin Groshong and a safety briefing I climbed into the forward cockpit. Snuggled into the seat and after securing the safety harness I donned my helmet and goggles.



Over the intercom, Kevin asked if I was ready, “Roger” was my reply. “Clear prop” Kevin barked, and the starter whined as the prop slowly turned. Shortly, there was a crescendo of programmed controlled explosions as the radial came to life belching a cloud of blueish white smoke from its exhaust.



We taxied to the end of runway 28, did a run-up and mag check before turning onto the centerline. Slowly the throttle was advanced and as speed picked up I watched the dancing of the rudder pedals as Kevin kept a straight heading. The tail lifted and the Stearman settled into a smooth takeoff. Making a turn, we flew over Prineville, the Crooked River and large ranches before reaching open land.

At this point, Keven gave me the controls. I did a shallow climb, followed a wandering valley, than a couple of “on point” turns to get the feel of the Stearman. It was responsive and great!

After heading towards Powell Butte, Kevin took over and we entered into a shallow dive leveling off a hundred feet or so above the ground to tickle the ears of local Jack Rabbits. Climbing, we began to sharply bank and turn to follow a winding valley to the summit of Powell Butte. With the airport in sight, we turned onto base, then final for a picture perfect three point landing.

Back at the hanger, I got out and Jim Gindlesperger, our member from Burns, climbed into the cockpit for his flight.



At the BAM 2015 Christmas party, a flight in a Stearman was auctioned for which Jim and I had a bidding war until my wife made the generous bid. Prior to the flight, I proposed and Kevin agreed to split the time so Jim could also experience the thrill of two wings and a radial.

Many thanks and appreciation goes to Kevin Groshong for his generosity and piloting skills by providing his time and Stearman for a very enjoyable and long remembered September morning ride on two wings and a radial.

# MEMBER CONTRIBUTION

Tom Rainwater recently visited the Frontiers of Flight museum (located in Dallas, Texas) and wanted to share some of that experience with club members. He sent 127 pictures, so if this has really struck an interest for you, then I suggest you visit the museum ... or at least contact Tom for more pictures.

Experience the stories of aviation and space flight—from the Wright Flyer to the one-of-a-kind *Flying Pancake*; the *Apollo 7* spacecraft, 13 historical galleries and over 35,000 artifacts; the Living History program and their acclaimed STEM education program. The Frontiers of Flight Museum is the perfect place to explore the history and progress of aviation, as mankind continues to pursue going higher, faster and farther.

Currently, there are over 30 aircraft and extensive display galleries draw aviation buffs, schools, family members to the museum. Popular collections include early biplanes, historically important military and general aviation aircraft, the World War II exhibit, the extensive history of Southwest Airlines exhibit area, numerous commercial airline artifacts, the iconic Chance Vought V-173 *Flying Pancake* and the *Apollo 7* command module. Visitors can take a chronological walk through the development of human flight from the Leonardo da Vinci parachute to space exploration. Military, commercial, and general aviation as well as space flight are represented at the Museum. The Frontiers of Flight Museum is an official affiliate of the Smithsonian Institution.

Some of the exhibits were built by volunteer RC pilots.





# Charging Box

John Wytsma brought his new charging box that he built from a Harbor Freight tool case to the last club meeting for 'Show and Tell'. Since the club meeting John has provided more detailed information for the Flight Report with more details and pictures.

The side of the charge box. From left to right is a connection for a power cord with on/off switch to apply power.

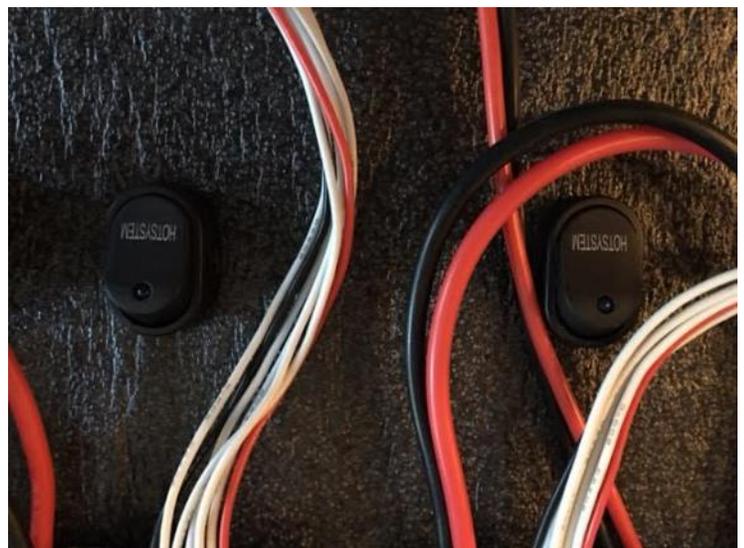
The voltage indicator is turned on by one of the switches on the top showing battery voltage. Two plugs under the covers is for a 12v cigarette lighter plug and two USB 5V connections.



The external power connector and switch on the side power this small charger with automatic cut-off for charging the batteries. The temperature of the battery as well as the voltage are on the top gauge.

Both the side gauge and top gauge as well as the charger are controlled by these two switches.

Picture of the side connections.





The box has long hex bolts coming through the bottom with a lock nut adjusted to the height of the top plywood plate.

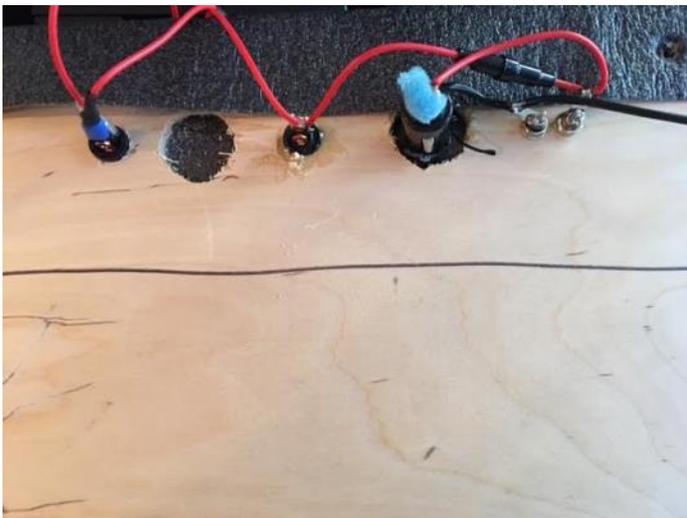
Notice two 20 Amp batteries giving a total of 40 Amps for charging.

The wiring is simple with the batteries connected in parallel.

With the top plywood platform on, you can see the bolts popping through, the plywood will be fastened with 4 more lock nuts.

The top has two switches, one voltage/temperature gauge and two female banana plug connectors. You can see how they look from the bottom.

The I-Charger as well as the other items are held in place by Velcro.

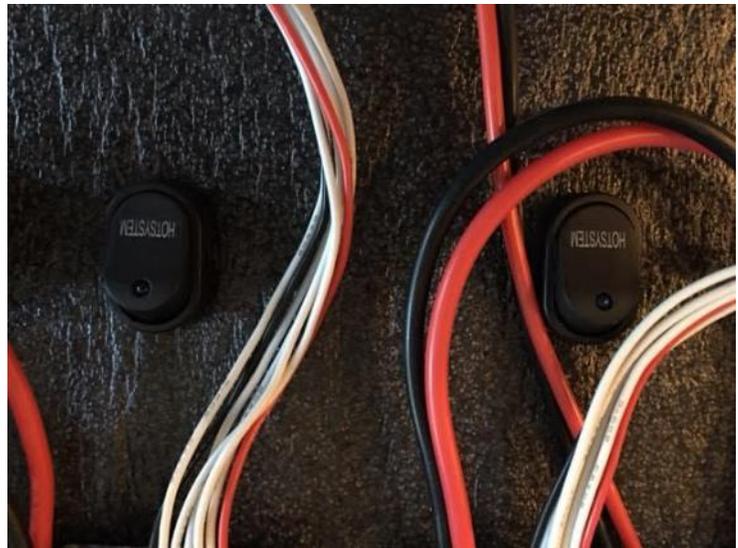




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Besides the yearly Alvord Desert trip ... there are other places closer to home (about 1 1/2 hrs away) by Fort Rock, Oregon called Schaub Lake. Recently a number of the club members made the trip to have some fun, in the air and on the ground. Plus we had some visitors (Kim Waterhouse and Dave Lawler) that came in a full size plane (Kim's Carbon Cub) and landed on the dry lake bed.

Tom Rainwater, Jimmy Mazurek (a friend of Tom's from Sandy, Oregon), Jim Young, Ron Grigsby, Darrell Loveland, Jim Stuart, Rick Burgess, Bob Ingram. The group of us meet at Gordy's in LaPine for breakfast before heading to Schaub Lake.

Tom was first into the air with his electric jet.



Carbon Cub visit ...



Kim at the controls, Dave along for the ride.





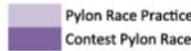
# What else is happening

## Bend Aero Modelers - 2016 Event Calendar

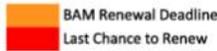
Last Update: 1/24/2016



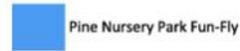
Club Meeting



Pylon Race Practice  
Contest Pylon Race



BAM Renewal Deadline  
Last Chance to Renew



Pine Nursery Park Fun-Fly



National Holiday



BAM Christmas Party



Family BBQ & Scale Fun-Fly



Annual National Model Aviation Day

January							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
1						1	2
2	3	4	5	6	7	8	9
3	10	11	12	13	14	15	16
4	17	18	19	20	21	22	23
5	24/31	25	26	27	28	29	30

January 1st - New Year's Day

February							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
6		1	2	3	4	5	6
7	7	8	9	10	11	12	13
8	14	15	16	17	18	19	20
9	21	22	23	24	25	26	27
10	28	29					

March							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
10			1	2	3	4	5
11	6	7	8	9	10	11	12
12	13	14	15	16	17	18	19
13	20	21	22	23	24	25	26
14	27	28	29	30	31		

April							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
14						1	2
15	3	4	5	6	7	8	9
16	10	11	12	13	14	15	16
17	17	18	19	20	21	22	23
18	24	25	26	27	28	29	30

April 5th - Easter Day

May							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
18	1	2	3	4	5	6	7
19	8	9	10	11	12	13	14
20	15	16	17	18	19	20	21
21	22	23	24	25	26	27	28
22/23	29	30	31				

May 10th - Mother's Day / May 25th - Memorial Day

June							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
23				1	2	3	4
24	5	6	7	8	9	10	11
25	12	13	14	15	16	17	
26	19	20	21	22	23	24	25
27	26	27	28	29	30		

June 21st - Father's Day

July							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
27						1	2
28	3	4	5	6	7	8	9
29	10	11	12	13	14	15	16
30	17	18	19	20	21	22	
31	24/31	25	26	27	28	29	30

July 4th - Independence Day

August							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
31		1	2	3	4	5	6
32	7	8	9	10	11	12	13
33	14	15	16	17	18	19	20
34	21	22	23	24	25	26	
35/36	28	29	30	31			

September							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
36					1	2	3
37	4	5	6	7	8	9	10
38	11	12	13	14	15	16	17
39	18	19	20	21	22	23	24
40	25	26	27	28	29	30	

September 7th - Labor Day

October							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
40							1
41	2	3	4	5	6	7	8
42	9	10	11	12	13	14	15
43	16	17	18	19	20	21	22
44	23/30	24/31	25	26	27	28	29

November							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
45			1	2	3	4	5
46	6	7	8	9	10	11	12
47	13	14	15	16	17	18	19
48	20	21	22	23	24	25	26
49	27	28	29	30			

November 24th - Thanksgiving Day  
NOTE: Due to Thanksgiving the November meeting is a week earlier.

December							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
49					1	2	3
50	4	5	6	7	8	9	10
51	11	12	13	14	15	16	17
52	18	19	20	21	22	23	24
53	25	26	27	28	29	30	31

December 24th - Christmas Eve  
December 25th - Christmas Day  
December 31st - New year's Eve  
January 1st - New Year's Day



# Bend Aero Modelers



Bend, Oregon | AMA District XI

## Field Safety Guidelines

### A. GENERAL

1. All pilots shall be current members of AMA. Proof of current AMA membership is required prior to flying at BAM.
2. Visiting AMA pilots and new members of BAM shall receive a safety orientation by one of BAM's members prior to their first flight.
3. Pilots shall ensure flight operations in accordance with AMA's Safety Code and these Field Safety Guidelines at all times.
4. Pilots are responsible for the safe operation of their aircraft at all times.
5. All guests, spectators, children, and pets shall be supervised by a BAM member at all times while inside the flying field (fenced area) and are encouraged to remain behind the pit tables.
6. Pilots shall always secure/restrain running or armed aircraft.
7. R/C cars and other surface vehicles are prohibited anywhere inside the flying field (fenced area) during active flight operation.
8. Smoking is prohibited anywhere inside the flying field (fenced area).
9. The consumption of alcoholic beverages before or during flight is prohibited.

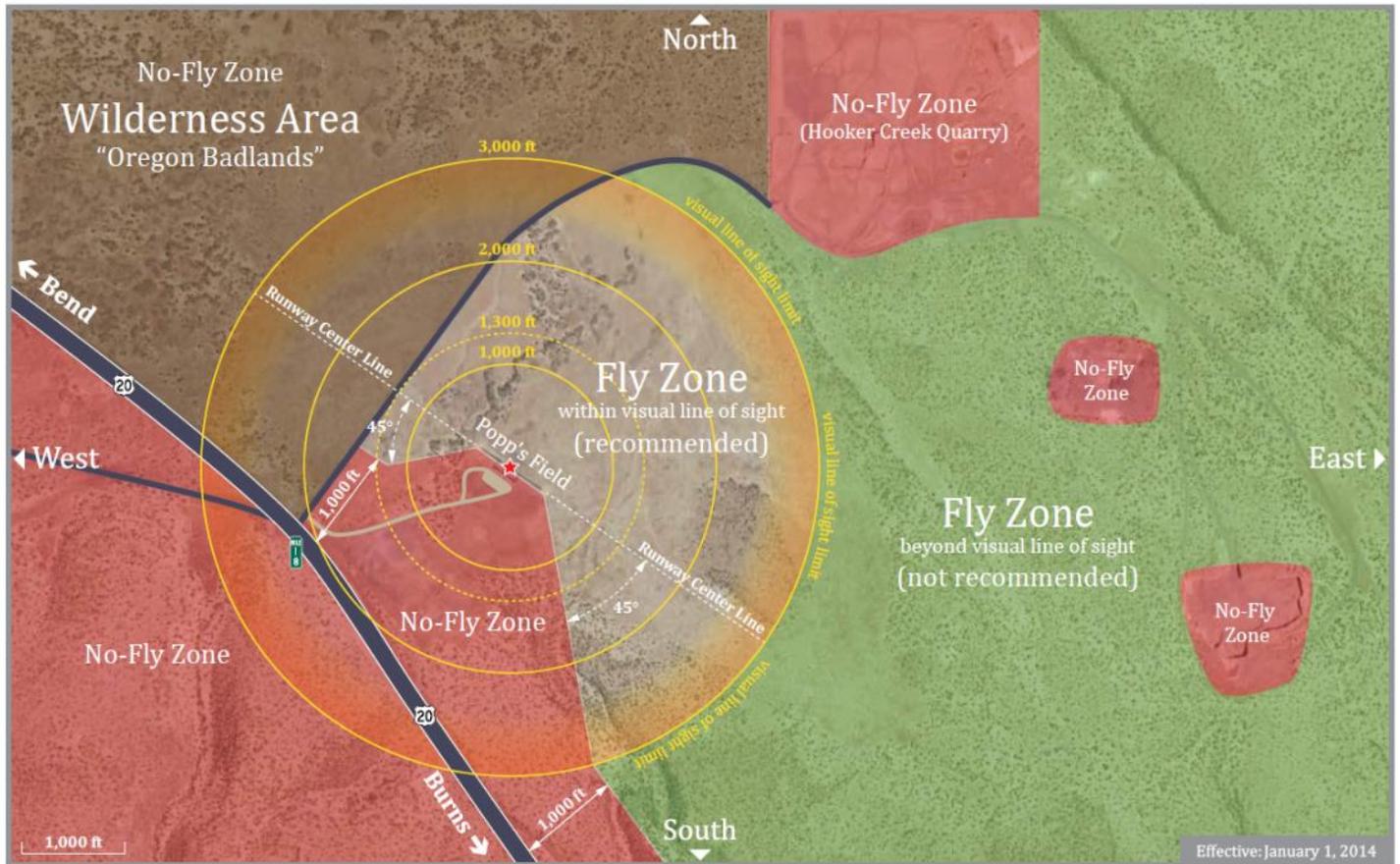
### B. PRE-FLIGHT OPERATION

1. Pilots that use AM/FM radio equipment (50 MHz, 53 MHz, and 72 MHz) shall possess the appropriate frequency pin.
2. Pilots shall place their AMA card on the respective channel pin on the frequency board. This does not apply to pilots using 2.4 GHz transmitters.
3. Pilots shall not start/run their aircraft in the pit area.
4. For extended engine tuning and troubleshooting procedures (e.g., more than usually needed to start the engine), pilots shall use the marked areas designated for tune-ups, break-in and troubleshooting.
5. Pilots shall never leave their aircraft unattended while the aircraft is running or armed even if it is secured and restrained.

### C. FLIGHT OPERATION

1. Pilots shall only taxi aircraft on the taxiways and runway. No taxiing is permitted in the pit area.
2. While flying, pilots must remain behind the safety fence.
3. Pilots shall verbally communicate their intentions during takeoffs, landings, low passes, touch-and-gos, and emergencies.
4. Pilots shall always fly their aircraft north of the centerline of the runway and remain within the approved fly zones (see fly zone map for details).
5. Only pilots and a supervised helper are permitted beyond the safety fence (e.g., to retrieve an aircraft).
6. Landing aircraft have the right of way. Dead-stick landings shall be called as such and given immediate right of way.
7. Aircraft shall not take off from the taxiways south of the safety fence.
8. Aircraft shall not land on the taxiways at any time.
9. Pilots shall call all maiden flights prior to flight. All other aircraft shall be grounded until the maiden flight has been completed.

# Fly / No Fly Zone's for Popp's Field



★ Popp's Field: Latitude 43° 56' 42.34" N / Longitude 121° 1' 16.21" W

■ No-Fly Zone ■ Wilderness Area (No-Fly Zone)

# 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.