

# Bend Aero Modelers



## Flight Report

September, 2016



### Next Meeting



September 28, 2016  
6:30pm At Black Bear Diner  
Food Available  
Come early to visit and eat!

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*By Bob Ingram*

## **September**

Only 2 more issues (after this September issue) for the year of 2016.

*Appreciate the contribution of pictures and articles that I have been getting this year ... so continue to feel free to submit pictures and stories during 2016. Without your contributions the BAM Newsletter would not exist at the level you expect it.*

*So do not be shy, lets see those pictures and stories.*

*Remember the Editor can't be everywhere but someone is usually there to report that CRASH (take pictures, and tell who made it happen) or some other event.*

*MAYBE we finally have the 'cow' problem fixed.*



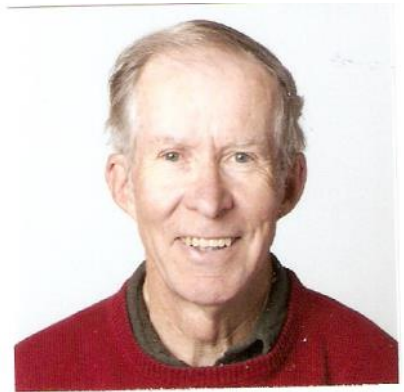
# Welcome to BAM

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Let's give a BIG BAM WELCOME to Jim Stuart who is moving to Bend soon.

In Jim's words ...

I can't remember a time when I didn't have airplanes on my mind. I built my first model airplane at about age five. Between model airplanes, I managed to get through college and went right into the Navy and about a year and half later was a Naval Aviator. In the Navy, I flew the Douglas A-1H Skyraider (the Spad) and accumulated over 300 carrier landings and 150 combat missions in Vietnam. Enough of that, I left the Navy for the airlines but my timing wasn't too good and I ended up flying for three, Pan Am, Transamerica, and finally Delta. between airlines I spent six years flying old airplanes as air tankers on forest fires. My first air tanker was almost as old as I was, a TBM Avenger torpedo bomber built in 1944. I flew other air tankers until a better, and safer, flying job came along and finally retired from Delta. My model airplane interests have included just about every protocol but lately it's been mostly RC water planes because a lake was the best place for me to fly. I'm looking forward to flying off of a real runway! I like all the fun sport airplanes but really like scale. I'm going to enjoy the new flying opportunities and meeting new friends along the way.



In



Welcome to BAM ... all of us look forward to seeing you and your planes at Popp's Field.

## Refresher: Field Safety Guidelines

A few months ago, we revisited our Field Safety Guidelines to consolidate some of the rules and to remove ambiguity as much as possible, but also to accommodate some flexibility and avoid being too restrictive. I encourage all members to occasionally review the Field Safety Guidelines and refresh your understanding of our rules.

What prompted me to write this issue's safety comments was a recent conversation I had with a few members. One of the rules that provides some flexibility and requires good judgement is **Rule 7** under **section C, "Flight Operation."**

***"Aircraft shall not take off from the taxiways south of the safety fence."***

We purposefully phrased this rule this way to allow flexibility when strong cross winds make a normal, down the runway takeoff challenging. Some smaller and lighter airplanes can easily take off across the runway by taking advantage of the taxiway section that lies between the runway and the safety fence.

What caused this discussion was the question whether this is an alternative takeoff option. The answer to this question is "no." The flexibility that the above mentioned rule provides is not a recommended takeoff approach and should only be a last resort. In other words, pilots should not use convenience or complacency as a reason for taking off this way. In fact, it could add to unsafe practices and promote bad habits. The recommended takeoff approach is down the runway.

Should pilots take off under strong crosswinds and decide to use this exception to the recommended takeoff procedure, we highly encourage pilots to apply common sense and take into account overall flight operation, including other pilots and general flight condition. Ask yourself if you have to fly under such wind conditions and whether it makes sense to wait a few minutes for the wind to calm down to have enough time for a safer takeoff.

In summary, don't let complacency encourage unsafe practices. If you have not recently reviewed the Filed Safety Guidelines, please take a look. We post our safety rules within this newsletter (towards the end of the newsletter). Also, you can always download a copy via our website at:

[http://www.bamrc.com/documents/BAM\\_field\\_safety\\_guidelines.pdf](http://www.bamrc.com/documents/BAM_field_safety_guidelines.pdf)

Fly safely!

Waldemar Frank

HUMOR



CONTEST

A BAM member took these pictures ... do you know what they are?

Send your guess to the Editor ... Answer at club meeting



# National Model Aviation Day Fun Fly



## HAND the ENTERTAINER

Friday, Sept. 9 was a sunny day with high wispy clouds and a fickle wind. Members enjoying this weather at Popp's Field were Bill Hand, Tom Rose, Terry McDaniel, Dave Reiss, Tim Peterson and Trouble.

Terry's Conscendo (powered glider) was hampered with loose screws holding the motor. He discovered this on takeoff and aborted the flight. He is now looking for Loctite Blue.

Tim had several good flights and had to leave early.

Tom Rose flew his Spitfire with grace and agility. However, upon landing there was a loud kur-thud as the Spit's wheels met the runway. Tom taxied back to the pits and informed us all was well.

Trouble brought out his F4F Wildcat after hanging in his shop for several years. Installed the battery and realized the control surfaces were not responding, not even the motor. A closer look revealed the Wildcat had no receiver as the original receiver was cannibalized some time back for use in another plane. Dah, preflight check!!!!!!

Dave Reiss did not lose his Apprentice, although he had decorated it with a bright orange accent color for better visibility. He had several good flights.

Then the entertainment began. Bill Hand brought his ten plus year old 'Hanger Queen', a stick and film covered powered glider. Bill hand launched the model which immediately began a steep climb and perform numerous loops and rolls above the pits, causing concern (head for the shade structure) for the onlookers. The plane finally did a nose dive east of the pits, breaking a wing spar and a prop. Bill claims he had no control(?).

The entertainment didn't stop there. Bill launched his Conscendo and was having a good flight while chatting with Dave about battery/flight times. Apparently Bill was in 'safe' mode and decided to switch to 'expert' mode some 75 - 100 feet above terra firma. The plane did an unexpected outside half loop ending in complete destruction. Bill recovered the pieces after spending considerable time searching for a special wheel, which he never found.

By no means does this author suggest nor nominate any of the above for Crash Trophy.

# Show & Tell

Bill Hand brought up how much he and other members are enjoying the Conscendo glider and how easy it is to fly. This sentiment was echoed by a few other members who had recently purchased them as well.. They are available at D's Hobbies in Bend if you are interested in a fun and easy airplay to fly.

# Crash Trophy

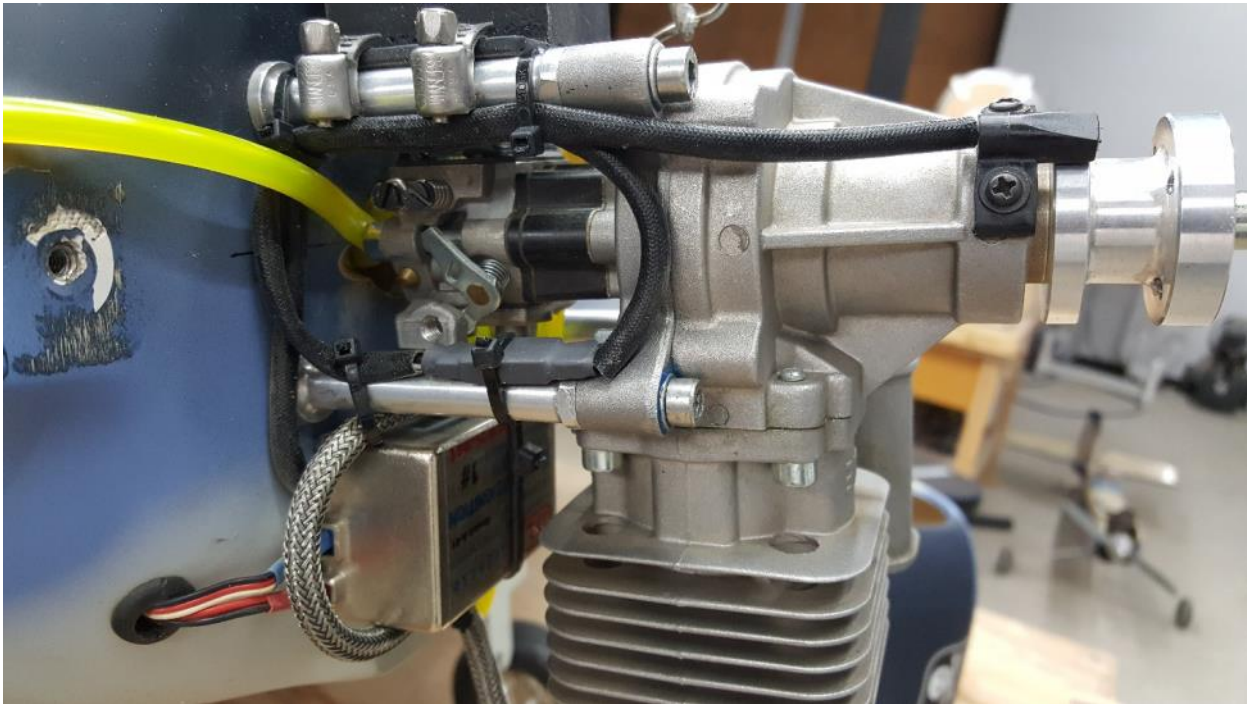
The crash trophy for this month was not straight forward. We thought it was pretty clear cut when we learned that Bill Hand had lost another airplane at the field. Not crashed ... (that we know of) ... just lost as it got caught up in the high winds aloft and headed for the hills. Then ... just as the membership was about to award the trophy to Bill ... Rob Breitbart confessed that he had indeed crashed his U2 spy plane. He refused to discuss the mission the plane was flying when it went down but needless to say it won't be taking any pictures for a while. Congrats Rob!



## A Contribution from Tom Rainwater

### Walbro Carb Mixture Needle Modification

Over the years I have often wondered why most gasoline engine carburetor manufacturers continue to make the mixture needles with a flat blade head. Maybe it is to discourage you from trying to adjust the needles while the motor is running. If so, it is pretty effective because getting the long flat blade screw driver into the slot in the needle while the motor is vibrating is difficult enough much less trying to keep it engaged long enough to make an adjustment. Below is one solution I have used to make adjustments easier while the engine is running. The idea captures a 6-32 socket head cap screw to the needle allowing the user to use a long ball driver to adjust the needle.



Here is a picture of the DLE30 on my ESM Corsair. As you can see the needles are hard to get to and even if you do the flat blade screw driver keeps slipping off.



Remove the needle from the carburetor and get a 6-32 x ¼" socket head cap screw.



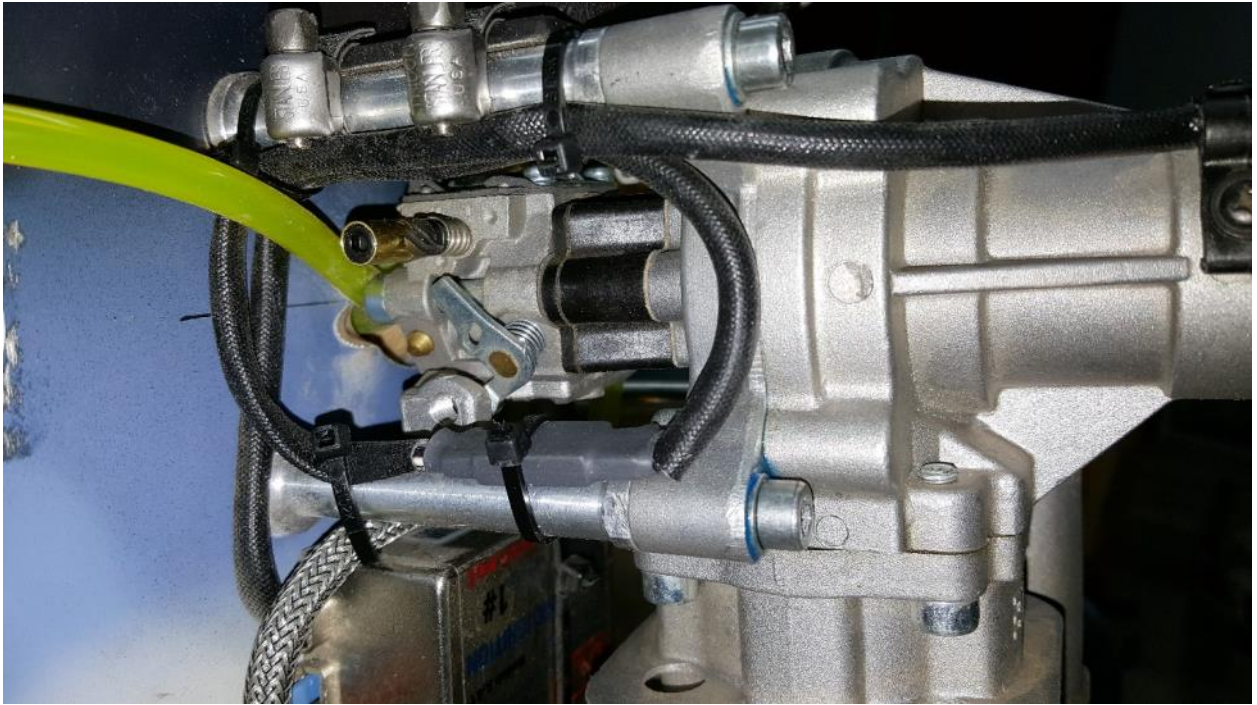
Grind the 6-32 socket head cap screw shank into a blade shape that fits into the needle head.



Fit the cap head screw blade into the needle and measure the length from the top of the socket head to the bottom of the needle head. Cut a piece of  $\frac{1}{4}$ " brass tubing  $\frac{1}{16}$ " longer than the measured length of the two.



Press the brass tube over the socket head cap screw then insert the assembly onto the needle head. Crimp the  $\frac{1}{16}$ " excess length of the brass tubing to hold the assembly to the needle. This modification can be easily removed in the future without any damage to the needle if desired.



Here is a picture with the high speed needle modification in place.

## Simple Plane Storage Mount by Matt Kehr

Another BAM members contributing to the Flight Report

Ceiling or Wall Hanging Instructions for Planes

Parts Needed (Average cost per plane \$7.50 depending on size)

Part#846162 from Home Depot at \$2.87 each. Need at least two per plane depending on size.

<http://www.homedepot.com/p/Everbilt-10-in-Gray-Giant-Storage-Hanger-01239/202305566?keyword=846162>

From any parts store, use 1" Schedule 40 PVC. Schedule 40 required for strength and to secure properly to mount.

### Step One

Start with mount

### Step Two

Remove plastic/rubber cap



### Step Three

Cut PVC to desired length for your plane.

Insert end of hanger into end of PVC

Use a 3/4" self-tapping screw to secure PVC to mount



## Step Four

Mount and hang plane

You may wish to add 1" plumbing



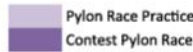
# What else is happening

## Bend Aero Modelers - 2016 Event Calendar

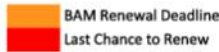
Last Update: 1/24/2016



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.

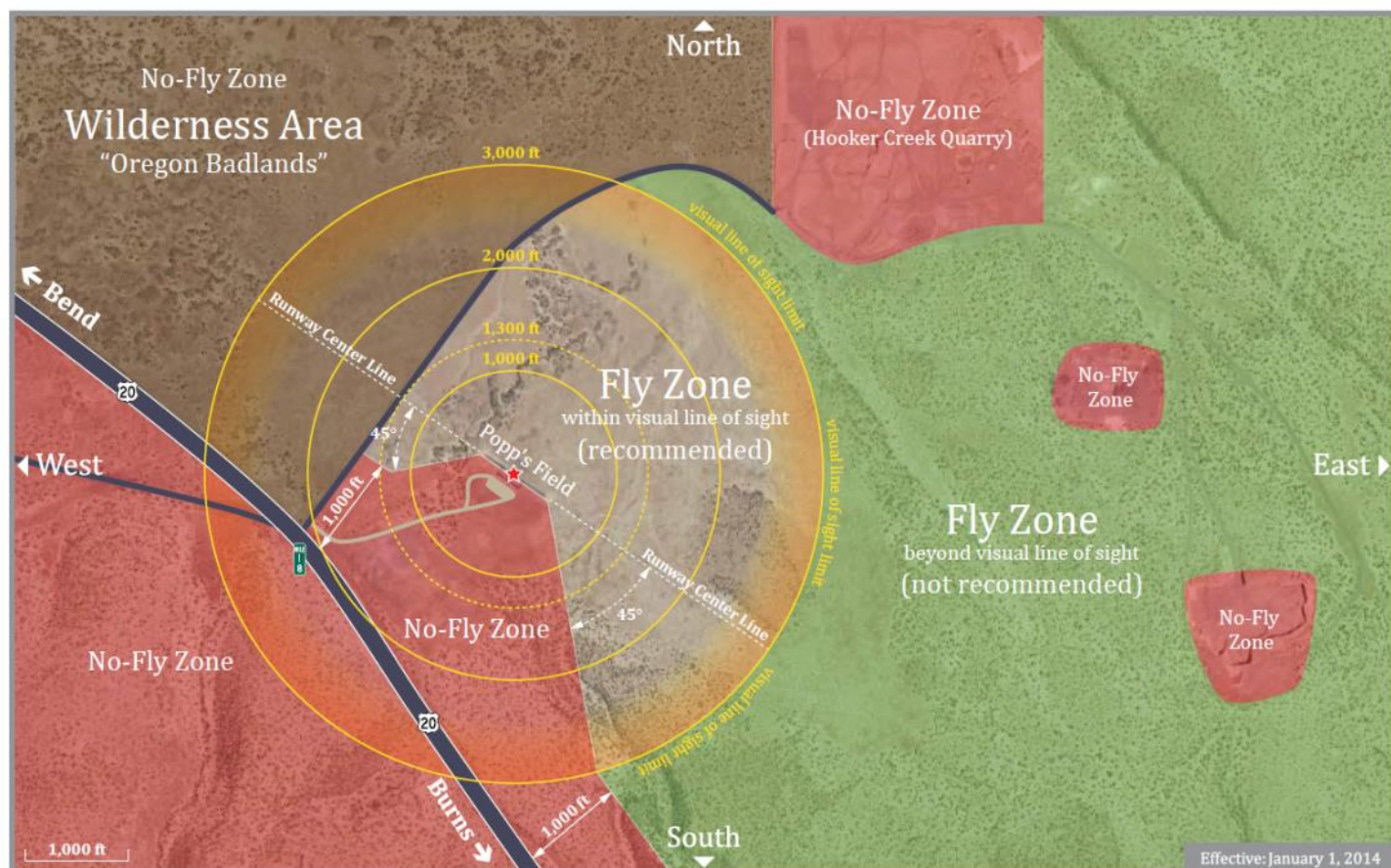
### B. PRE-FLIGHT OPERATION

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.