

Bend Aero Modelers



FLIGHT REPORT

SEPTEMBER 2014

WE HAD IT MADE IN THE SHADE



Thanks to Greg McNutt, the Annual BAM Family BBQ Day was well attended and a big success. Several of the people that normally handle organizing this event were not available so Greg stepped up and did the organizing, shopping and cooking. Everyone who attended had a grand time and stuffed themselves to the max with the great variety of side dishes that were available. Thank you Greg and we look forward to this event next year. More pictures are featured later in this newsletter.

Next Meeting

September 24, 2014
6:30 pm at Jake's Diner

Food available
come early to visit and eat.



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FROM THE EDITOR



by Andy Niedzwiecke

Gosh it's hard to believe that Summer's over and Fall is Tuesday. It will soon be time to be moving into our shops to begin our winter projects and repair whatever we have managed to damage during the flying season. I can tell you that it has been one of the busiest summers that I can remember in a long time both with projects and events but it has been fun and we have accomplished a great deal with the help of a lot of member volunteers and some generous donations. I just got home a while ago after a pleasant flying session with some other members and was just admiring what the BAM facility has evolved to. It is a clean and safe place to go and enjoy our planes.

A reminder that the October meeting is the nomination meeting for new club officers and the November meeting we vote. If you wish to become an officer, please make a point to bring it to the attention of the officers at the October meeting so you can be placed on the ballot. Being an officer takes dedication and selflessness to be able to continue on the path that the club has established. If you don't want to be an officer, then be sure to consider volunteering the next time a project comes up so we don't burn out our already tired volunteer base.

Do come out to the field enjoy the friendly atmosphere that exists there! There is always someone there to help you if you need it and we always enjoy "bench flying" between flights. There is plenty of joking round and just plain fun to partake in, so take advantage of your membership and come join us.

Please note...on our calendar there is a "Competition Fun Fly" scheduled on October 4th. That event was cancelled and was not taken off of the calendar. In addition to the afore mentioned *volunteer burnout*, we have had wall to wall events this year and enough is enough. Casual flying will still continue until the weather takes it's toll on us.

We will soon be buying the propane heater for our clubhouse along with a supply of propane canisters in preparation of colder weather so don't think we won't be out at the field just because the temperatures are going to be dropping. It gets very comfortable in there in a big hurry so we can all sit around and drink some coffee and tell stories.

That's it for this month. See you at the meeting on the 24th at Jake's

Andy

Welcome



NEW MEMBERS

Please extend a warm BAM welcome to our two newest members Eric and Sean Freed. Both Eric (father) and Sean (son) are new to RC flying and came out to our field a few weeks ago. They are interested in electric planes and are working with our flight instructors to learn to fly and solo soon. Welcome to BAM guys!!!

FROM THE PRESIDENT



by Waldemar Frank



Dear Members, Fellow RC Pilots, and Interested Readers:

As you may recall from recent discussions, we have been exploring ways to better reach the public through educational opportunities. Among other events, Greg McNutt, our secretary, and several other members attended the *Innovation Day Bend* event last month, which offered a unique opportunity to mingle with a more targeted audience.

During the event we spoke with numerous attendees, including local educational contacts such as Paul Stennett who is the Program Manager at Central Oregon Community College (COCC) here in Bend. Greg and I met with Paul on September 5 to discuss how we can work with COCC to provide learning opportunities through its community learning program.

The particular program is designed as non-credit course work that is open to the general public who just want to pick and choose selected topics of interest, for example, to improve their PC skills, learn how to garden, etc. Courses can vary in price, but are on average less than \$100 per course. Although COCC would typically pay instructors (about \$18/hour), we indicated to Paul Stennett that we are more interested in a donation to the club in return for our efforts, which he said is possible.

The idea is to initially offer an introductory course on R/C model aviation that could involve three 2-hour sessions (6 hours total). If things go well and interest exists, we could build on it and provide additional course work involving more advanced subjects related to R/C flying. Paul Stennett also mentioned that they have a field available that we could use for flight training and demonstrations as part of the course.

We are still in the definition phase of this opportunity, but the goal is to offer a course this winter. By the time you read this message, Greg and I will have met with Paul Stennett again (9/22) to discuss the proposed course description and general outline.

Our goal is to provide a combination of theory and hands-on learning to ensure that participants are exposed to a balanced mix of needed knowledge about AMA/regulations, safety, etc. and the flying itself. The proposed class size will be around 10 people to allow effective learning and adequate hands-on time. We may change the setup after the first round to ensure that we meet demand and needs.

Overall, this is an amazing opportunity for us and we are hopeful that it will be well received by the community. It is also an excellent way to teach the public about safe practices and raise awareness about our hobby. Depending on how things will go, we are further looking at approaching high schools (similar to what we did with Summit High School) to support existing STEM programs (Science, Technology, Engineering, and Math).

We will provide an update as we get closer and have more information to share.

Stay tuned!

Waldemar

Innovation Day Bend

By Greg McNutt

On Friday, August 22nd, Bend Aero Modelers (BAM) participated in the first annual **Innovation Day Bend** event. Innovation Day is actually a “nationwide competition that brings hobbyists together to help make the world a better place.” The event in Bend brought together local business and educational leaders, students and hobby enthusiasts. This was an all day conference that featured three specific sessions: Business & Education Leaders, Students and Enthusiasts. The conference also included an “**Innovation Lab**” where organizations, like **BAM**, introduced their products, technology and/or service. Similar to our participation in the Wings and Wheels event in Prineville earlier in the month, we setup up a display (in a classroom), where we featured some planes, FPV’s and multi-rotor UAV’s. We also brought our club brochures and information on **AMA** and our hobby in general. Finally, we brought our flight simulator and let young and old alike try their hand at flying virtual RC planes, jets and helicopters.



Tom Rainwater works with a student on the flight simulator

The competition part of the event featured three of the finalists in this year’s national **Innovation Day** competition. The finalists were made up of three teams of people. The goal was to essentially develop aerial robotic **applications** for the betterment of society. The finalists came from Georgia, South Carolina & Oregon (Portland). The group from Portland developed an application to help restore wetlands in the Duck Lake area (north of Portland) by using a hobby multi

rotor drone equipped with a high-definition video camera. The group from North Carolina used a multi rotor drone with a high-definition camera to plot the location of streetlights in Greenville, South Carolina for the purpose of exploring the relationship between nighttime illumination and crime. Finally, the group from Georgia worked with local law enforcement to study the potential use of drones in tactical situations such as bomb disposal.

We were the only “hobby” club to participate in the event and our display was well attended throughout the entire day. As expected, the flight simulator was a big hit. Not only did we get the attention of most of the

attending students, but we were able to connect with several local educators, including teachers and administrators at the elementary, middle and high school levels. We even caught the attention of an administrator at COCC. All of the educational leaders that we spoke with showed a real interest in exploring ways that



More students flying on the Real Flight simulator

we might be able to help them expand interest in aerial robotics among their students. Since this event, I have met with two of the attending administrators. One from the Bend/LaPine School District and one from COCC. Waldemar & I met with the COCC administrator (Paul Stennett) recently. We explored the idea of teaching a class on model aviation in January to a group of students via the **Community Learning** program. Waldemar and I will team up to teach a six hour class (divided into three two hour segments). We plan to limit the number of students to ten so that we can spend some quality time with each student during each two hour class. Waldemar and I are developing the curriculum and will soon present it to Paul Stennett for his review. We hope to cover the basics of flight, an introduction to the hobby and finally, a hands-on segment, where the students will try their hand at virtual (simulator) and actual (park flying) rc flying. We are excited to see how this experience might help us expand the number of people in model aviation in our community.

Our participation in the Innovation Day Bend event would not have been successful if it weren't for the help from some of our BAM members. A big "Thank You" goes out to **Tom Rainwater, Bill Hand, James Fredericks and Tom Royce** for their help throughout the day. We are hoping that we will get the opportunity to participate in this event again next year. The event organizers are very interested in inviting us back again. I have let them know that we would be interested and would even like an opportunity to do some flight demos during the event as well.



Attendees watching the FPV demo by the Roswell Flight Test Group

BAM'S ANNUAL FAMILY DAY

On September 6th, Members and their families and friends gathered at Popp's field for good food, good company, good conversation and good flying.....in other words.....FUN! The weather was great so a lot of flying continued throughout the day. At noon, Greg McNutt and his son, Kurt, barbequed hot dogs, hamburgers and corn and the sides for the pot luck feast were plentiful. There were a lot of canopies available so no one had to sit in the sun. There were some exciting flying moments but no real problems occurred which just made the day better. Below is a collage of the going's on.



CLUB 40 RACING



2014 Racing Season and Outlook for Next Year by Waldemar Frank



It's hard to believe how quickly time goes by. Another racing season came to its end when we held our last race on August 30. Unfortunately the last race had to be cut short because of stronger winds that started picking up during the second heat. In fact, the wind gusts were so strong at times that several of us had problems keeping our planes from rolling over during turns and smashing into the ground.

We decided to abort the racing that day and felt that it was more important to be safe and "live to fight another day." From a scoring perspective, the last race would have not made a difference since many racers had lost their planes in previous races and couldn't

participate because they didn't have another backup plane. So for the top three spots, the final race would have not made a difference. Bruce Burgess, the top racer in 2014, had too much of a lead to have a realistic chance of getting caught. Congratulations to Bruce for a great season (again)!

One of the discussion points that came up during this season is to look into creating a different racing class that allows a broader participation. We have been discussing this idea off and on and I think that it is time to seriously look into an alternative racing opportunity that makes it easier to get involved.

Several ideas have been bounced around, for example, using Parkzone's (electric) T-28 Trojan, which is easier to fly than the current Club-40 racers. However, we are also open to other types of similar electric airplanes. Tom Rainwater recently emailed us an interesting video link featuring his former San Diego club (<http://youtu.be/XnlnOKZlpsk>). The video makes an interesting case for electric racing using "cheaper" foam airplanes.

We will definitely review their experiences and classes in greater detail to determine if we could introduce a similar racing alternative for our 2015 season. Nothing has been decided yet and our racing committee will meet sometime later this year to discuss this further.

I believe that we have an interesting opportunity to make racing even more fun and attract more participants for next year. We have been routinely conducting this club activity for the past 5 years and it would be great to continue racing for many years to come.



CLUB 40 RACING

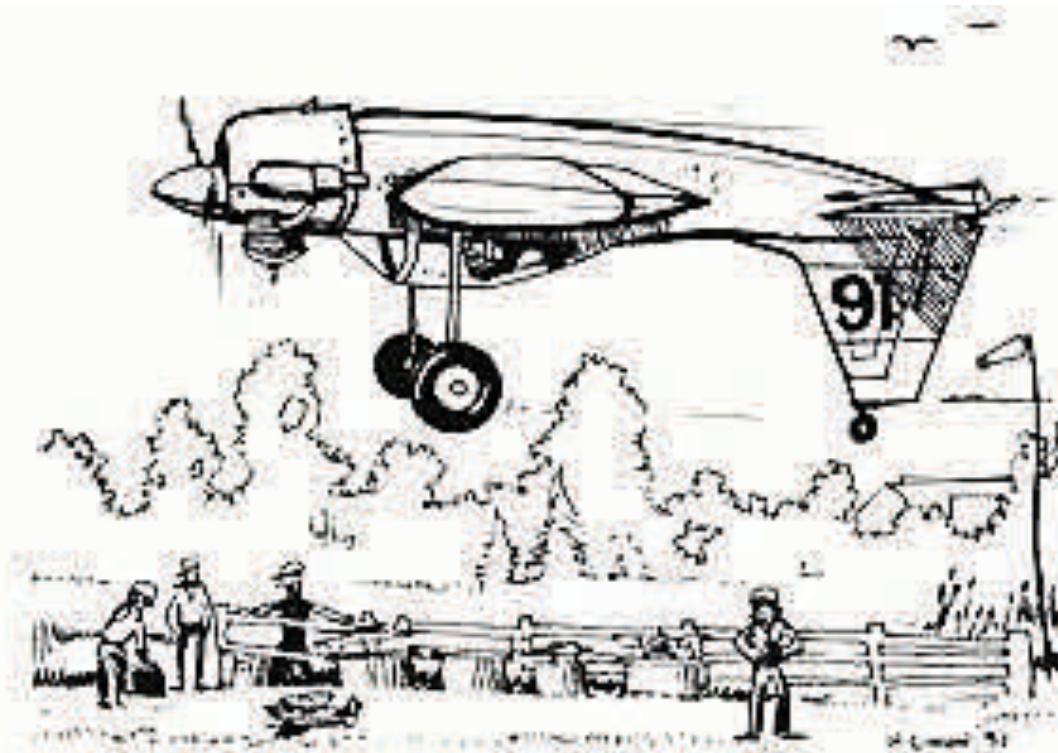


continued

AND THE FINAL RESULTS ARE.....

2014 End-of-Season Standings	Points
Bruce Burgess	53
Waldemar Frank	41
Ron Wallace	28
Darrell Loveland	25
Joe Stone	17
Greg McNutt	15

We will have more details once the racing committee meets and discusses possible options for 2015.
Waldemar

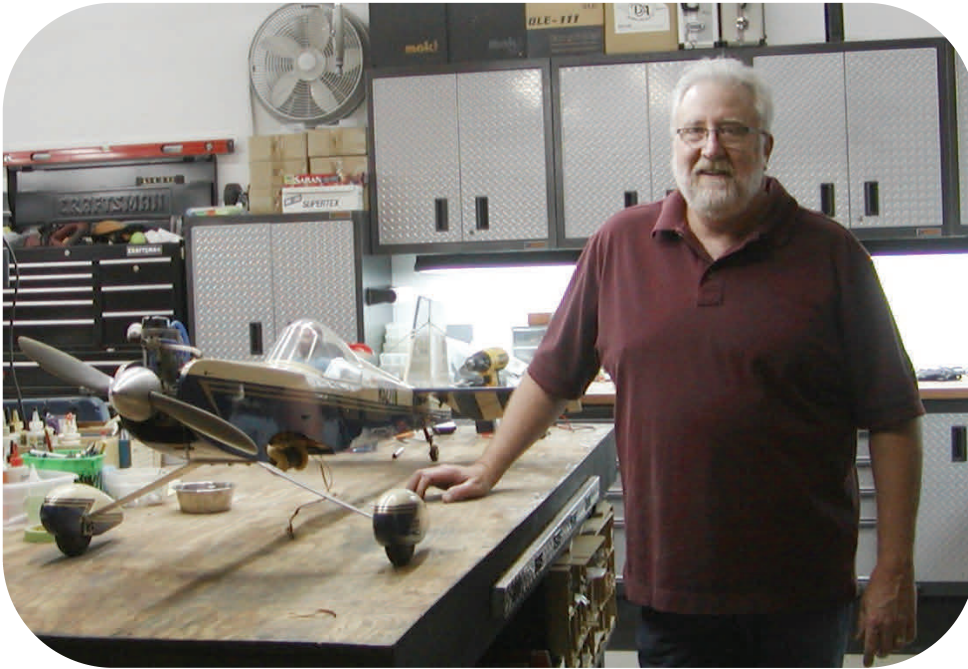


... HE SAYS IT TAKES THE SWEAT
OUT OF FLYING INVERTED ...

LET'S TALK SHOP!

By Andy Niedzwiecke

One of our newer members, Tom Rainwater, is in the process of building his "DREAM SHOP" and it is going to be fantastic when it is done. I recently visited Tom and asked if I could take some pictures of his work in progress and he graciously consented. I hope you all enjoy this mini-tour of Tom's shop....which used to be a horse barn. Beautiful shop Tom.....I'll be back for more pictures when it's done!!!



Here's good picture of Tom getting his SIG Four Star 120 ready to take to the desert for a camping trip. He said he is just getting around to cleaning things up and organizing now that the shop construction is complete....well not really complete but very usable at this time. Tom plans to add a paint booth which is actually a room unto itself plus a welding area.



These two views show the many "niceties" that reside in this mega-shop. I did have to drool a bit!



How's this? A milling machine and a lathe. Nothing to stop him now!

Models, models, models. If you look closely on the bottom shelves there's a Meister scale and a CARF P47.



OBITUARIES

Rest In Pieces



Richard Carlson was awarded the monthly crash trophy for his work at the National Model Aviation Day event. I don't remember the count but it was either two or three planes that he lost that day.

I have received no other reports or pictures of any other miss-haps that have occurred but if you know of any be sure to bring it to our attention at the meeting on the 24th of September. We wouldn't want to leave anyone out!!!

BAM Bulletin Board

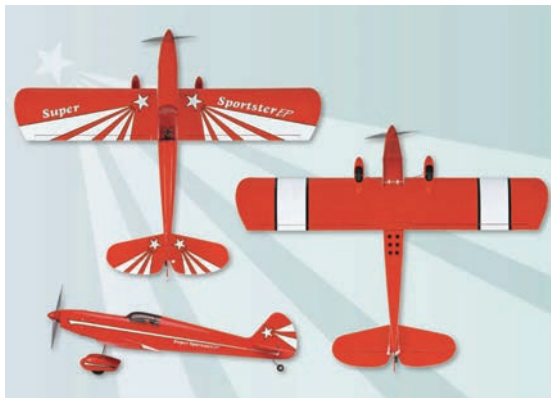
Tom Schramm purchased a bind-n-fly model that is equipped with a SPEKTRUM AR610 DSMX, 6 channel sport receiver. He flies Futaba so he has no use for this receiver. If you are in need of a new, never used SPEKTRUM AR610 receiver, Tom is offering this one for \$40.00. If you are interested, call Tom at 541-388-9292 or email him at tbranch@bendbroadband.com

Bill Hand has a couple of planes he'd like to sell.....let's see what he's offering. Both of these are hanger queens.....meaning they have never been flown! If interested in either or both call Bill at 458-206-9853

Piper L4 Complete 2350mm. Ready to bind with Futaba transmitter. Receiver is Futaba 617FS, servos are full size Hitek HS77BB. Electric set up like a fueler with ESC and flight controls powered by a separate battery with an external switch. GForce 30C 5000mA motor battery. 1000mA LIFE battery for controls. Large 60 series motor. Plane has full controls including flaps, functional scale spring loaded landing gear



He only wants \$300 for this beauty....come on jump on this deal!!!!



Super Sportster 40 complete: with Futaba 617FS receiver ready to bind and fly. \$175

Buy both for only \$425 !!!!!!!



Bend Aero Modelers - 2014 Event Calendar

Last Update: 5/13/2014

 Club Meeting	 Pylon Race Workshop Contest Pylon Race	 BAM Renewal Deadline	 Pine Nursery Park Fun-Fly	 Competition Fun-Fly
 National Holiday	 BAM Christmas Party	 Family BBQ & Scale Fun-Fly	 Annual National Model Aviation Day & Firecracker Fun-Fly	

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

January 1st - New Year's Day

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

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

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

April 20th - Easter Day

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

May 11th - Mother's Day / May 26th - Memorial Day
May 17th - Pylon Race at Popp's Field/BAM

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

June 15th - Father's Day
June 21st - Pylon Race at Dorrance Meadow/La Pine

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

July 4th - Independence Day
July 26th - Pylon Race at FOD/Redmond

August							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	27	28	29	30	31	1	2
32	3	4	5	6	7	8	9
33	10	11	12	13	14	15	16
34	17	18	19	20	21	22	23
35/36	24/31	25	26	27	28	29	30

August 30th - Pylon Race at Popp's Field/BAM
NOTE: Due to a scheduling conflict with Jake's Diner the August meeting is on a TUESDAY.

September							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
36	31	1	2	3	4	5	6
37	7	8	9	10	11	12	13
38	14	15	16	17	18	19	20
39	21	22	23	24	25	26	27
40	28	29	30	1	2	3	4

September 1st - Labor Day

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

November							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
44	26	27	28	29	30	31	1
45	2	3	4	5	6	7	8
46	9	10	11	12	13	14	15
47	16	17	18	19	20	21	22
48/49	23/30	24	25	26	27	28	29

November 27th - Thanksgiving Day
NOTE: Due to Thanksgiving and a scheduling conflict with Jake's Diner the November meeting is a week earlier and on a TUESDAY.

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

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

POPP'S FIELD SAFETY GUIDELINES



POPP'S FIELD SAFETY GUIDELINES

All pilots shall be current members of A.M.A. and B.A.M. Proof of current A.M.A. membership is required prior to flying at B.A.M.

Visiting A.M.A. pilots and new members of B.A.M shall receive a safety orientation prior to their first flight.

Pilots shall ensure safe flight operations in concordance with A.M.A. Safety Rules and these Field safety Guidelines.

Pilots shall ensure safe operation of their aircraft and associated equipment prior to use.

Pilots are encouraged to verbally enforce safe flying practices.

All guests, children, and pets shall be supervised by a B.A.M. member while inside the flying field and are encouraged to remain behind the pit tables.

All pilots shall restrain their aircraft during the start-up/arming process. This includes electrics.

Pilots shall never leave their aircraft unattended while the aircraft is running or armed..

Pilots shall only taxi aircraft in the specified taxi area and use caution while taxiing.

While flying, pilots are encouraged to remain 25 feet behind the closest edge of the runway, preferably behind a pilot station.

Pilots shall verbally communicate their intentions such as landings, take-offs, or aircraft problems while flying.

Pilots shall fly their aircraft north of the centerline of the runway. This is known as the "deadline".

POPP'S FIELD SAFETY GUIDELINES



POPP'S FIELD SAFETY GUIDELINES

continued

Pilots only are permitted beyond the flight line (e.g., to retrieve an aircraft)

Landing aircraft have the right of way. Dead-stick landings shall be announced as such and given full priority.

Pilots shall communicate any aerobatic maneuvers such as, low passes, touch and go's, and hovering directly near or above the runway.

Pilots shall not take-off or land on the taxiways.

A maximum of five (5) aircraft is allowed in the air at one time. This includes helicopters and micros.

Pilots shall call all maiden flights prior to flight. All other aircraft shall be grounded throughout the entirety of the flight.

Hand launches shall be performed approximately 25 feet from the edge of the runway closest to the pilots' station.

Pilots using AM/FM radio equipment shall have the appropriate frequency pin attached to the transmitter antenna whenever the radio is in use.

R/C cars and other surface vehicles are prohibited anywhere inside the flying field.

Smoking is prohibited anywhere inside the flying field and shall be carried out in a safe and respectful manner in the parking lot.

The consumption of alcoholic beverages before or during flight is prohibited.

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.