PRESIDENT
Waldemar Frank
541-330-8165
rcbonanza@gmail.com

VICE PRESIDENT
Rick Burgess
541-504-5999
rickb@bendbroadband.com

SECRETARY
Greg McNutt
541-550-7898
gregmcnut@aol.com

TREASURER
Tom Schramm
541-388-9292
dranch@bendbroadband.com

Safety
Bruce Burgess
541-279-1486
ke6gkc@ykwc.net

Flight Instructors
Bruce Burgess
541-279-1486
Rick Burgess
541-504-5999
James Fredericks
541-350-5564

AMA District XI VP Mike Mosbrooker 360-679-9139 nosbrookerdxi@comcast.ne

FLIGHT REPORT Editor
Andy Niedzwiecke
541-389-6012
andynez@q.com

Bend Aero Modelers



FLIGHT REPORT

FEBRUARY 2014

QUARTERLY OUTSTANDING MEMBER AWARD



The Quarterly Outstanding Member Award, was presented to Tim Peterson at the January meeting by BAM President Waldemar Frank. Tim and his wife Cheryl hosted the BAM Christmas party last December and Tim has participated in most all projects at the field using his personal heavy equipment. Thanks Tim for your friendship and help!

Next Meeting



February 26, 2014 6:30 pm at Jake's Diner

Food available come early to visit and eat.

FROM THE EDITOR



by Andy Niedzwiecke

Hello everyone! I hope you are enjoying the beautiful Central Oregon Winter. It is this time of year that I am thankful that we are driven into the house for some much needed rest. It is also a time when we can repair equipment and planes or do those builds or projects that we talked about all last summer. I have been in touch with several members that have some great projects going on and you will see a couple of them in this month's issue.

I was talking to Waldemar the other day and the conversation turned to people participating more and more in club activities. We get close to 50% of the membership at our monthly meetings and the activity at the field is bigger and better than it has ever been before and at a consistent rate. There is an atmosphere of fellowship that prevails at all of our activities that we should cherish. I've been involved with other clubs that did not have near the welcoming attitude that our members put forth.

That brings me to another point we discussed. In order to have an informative and interesting newsletter, we need to have input from all areas of expertise and interest. I don't care if you are just starting or have been in the hobby for 50 years. It doesn't matter if you are a scale pilot, a sport pilot, a racer, a 3Der or a builder or an ARFer, you have something to share with us and we would like to hear from you. I will publish what you send in, hopefully with pictures so we can get to know you better.

We are getting ready for a busy and fun flying season so don't forget to get your planes in shape. If you are inclined to do some competition, you might want to contact someone about the Club 40 Pylon racing. A workshop for Club 40 racing will be held on April12 at the field and this would be a good time for you to explore that possibility. We are even talking about doing Foamie T28 pylon racing if we have enough interest to follow that through. Let us know! See you at the meeting on the 26th!

TECHNICAL INFO

The other day, I was pondering what to do if I ran out of model memory in my Futaba 10CAG transmitter. I have had this discussion before and wanted to revisit it. I called the Futaba Service Center and asked if you could fly from the Compac module if you had planes stored on it. The "official" recommendation from Futaba is to **not** fly from the Compac module but just to use it as storage. They advised that the way most people use the module is to leave one slot open on your radio and just copy the particular model you want to fly from the module to the radio. Some disagree with this but this is straight from the manufacturer. If you want to take the chance, that is up to you.

Futaba makes two Compac modules. The 16K version is compatible with the 8U, 9C and 9CS radios. It adds 8 model storage to the 8U and 6 model storage to the 9C and 9CS radios. The 128K version is compatible with the 10C and 10CAG radios and adds a 33 model capacity to those radios.

I can tell you that I have experienced problems with trying to fly one of my planes that was on a Campac module. Our president had to help me get the plane down as it was not responsive to the normal controls. When this plane was copied onto the radio itself, it flew fine. I just wanted to share this with you to possibly ward off any difficulties you might incur using a Campac.

Cheers from your humble correspondent, Andy

FROM THE PRESIDENT



Message from the President

by Waldemar Frank





When was the last time you have visited AMA's website in search of information or read the online blog posts, looked up AMA documents, subscribed to electronic newsletters, etc.? Do you even consider AMA's website a valuable information source? I am just curious whether folks regularly visit the website for other reasons than renewing their AMA membership?

Many of you probably receive AMA's Model Aviation magazine, which has a great mix of articles and district-related updates. However, there is a lot more information that you can access, view, or even contribute via AMA's website.

You may have seen a recent communication that I forwarded to all BAM members, which included a snapshot of AMA's 2013 accomplishments. It's easy to take AMA for granted and not see all the things that AMA does for different clubs, members, and communities through their programs and services. These are programs and services provided by many dedicated volunteers.

We, too, have benefited from AMA as some of you may recall. In 2012 we experienced wind damage at our field, which required us to replace some sections of the geotextile fabric in the pit area. We were able to fund the repair work through AMA's Club Disaster Relief Program. More recently, we received a grant through AMA's Club Recognition and Reward Program by submitting the video clip that KBNZ shot at our field last October. And this month, we will be applying for a grant through AMA's Flying Site Grant Program to (hopefully) receive partial funding for our 2013 field improvements.

These are just some examples that illustrate how valuable AMA and its services are for clubs like BAM. At an individual level, it is easy to overlook AMA's contributions and not immediately recognize the difference AMA can make for us, our hobby, and entire communities. We are extensions of AMA and should not forget that we too can make differences for AMA, other clubs, and communities.

It does not always have to involve donations (although these are helpful). It could involve volunteering, supporting AMA programs, contributing articles, sharing information that can benefit other clubs, attending club events (our and other clubs), and so much more. For instance, after our lengthy (successful) renewal process with BLM, I decided to prepare a "How-To" write up that I submitted to Tony Stillman, AMA's Flying Site Assistance Coordinator. By sharing our experience, we can help other clubs secure a flying site or help them keep their flying site on public land.

One of AMA's biggest challenges over the past years has been a declining membership. The last two years showed a slight increase, but maintaining a sufficiently large membership is essential for AMA to enable the mentioned programs and services. So in a way, our ability to recruit new members is not just a win for us, but also for AMA and our hobby.

We can easily get sidetracked and only see our club's small world. So think of it next time when you renew your AMA membership. Do you know of any friends or relatives (young and old) who would enjoy our hobby and club?

Keep flying, keep supporting AMA, and don't forget to have fun!

Sincerely, Waldemar Frank BAM President

FIELD TLC AND ETIQUETTE

Well, not too much to cover here because we don't want to get into the habit of harping. But.....

Recently at the field there have been pilots that have called

"landing" and have met with someone who was taking off anyway. If you are at the field and are taking off or going out to the runway, please make sure you are not going to interfere with someone who has called that they are landing. They may have a problem or they may just be landing but they have the right-of-way and a take-off at that time could cause a real problem.

Also, if you are going to do a maiden flight, wait until the sky is clear and everyone is aware that you are doing a maiden.

HANDY TIPS AND INFO

Tom Schramm offers this tip:

Need to secure a wheel to the axle of your favorite electric or small nitro plane, only to find you do not have enough wheel collars to do both sides of the wheel? You can solder a flat washer to the axle (wheel backside) or use a washer and JB Weld. Be sure to roughen and clean the axle and washer face, mix a small amount of JB Weld and apply to form a fillet. Let cure and you have it. Also works to secure the wheel instead of wheel collars.

MARCH FIRST
is the last day to re-new your
membership! If you have not
renewed, this is your last
newsletter!!!



AT THE FIELD



Even with the weather in the Wintertime here in Central Oregon, our members find openings to go out and enjoy the field. It is encouraged that if you want to go out, to send an email to members to let them Know that you will be at the field. This works well and most times includes meeting for breakfast and enjoying each other's company and stories.





















Just Havin'







A RADAR GUN FOR LESS THAN TWO DOLLARS!



by Waldemar Frank

While flying at our field recently, James Fredericks asked me if I wanted to check out a cool App that he got for his Android phone. I asked him what it does, and he replied: "It uses the Doppler Effect to calculate the speed of moving objects."

As you may already know, the Doppler Effect is named after Austrian physicist Christian Doppler who explained why the frequency of sound emitted from a moving object changes relative to a fixed observer. In other words, the frequency of waves increases as the object approaches the observer and decreases as it moves away. And this, in a nutshell, is what this nifty App appropriately called "HK Doppler" measures to calculate the traveling speed of a moving object.



The App has been developed for HobbyKing (thus the "HK Doppler" designation). You can either go to your preferred App store and download it to your phone, or you can go directly to the below website for more information, including user manual and video clips: www.hkdoppler.com

Needless to say, it caught my attention. James demonstrated it with one of his flying wings as he was performing multiple fly-bys while I was holding his phone in "listen mode" to acquire the traveling sound of the flying wing as it passed by. We measured several passes, all between 100 and 104 mph. It was so easy to use and just took 2-3 seconds per recording ("listening") to calculate the speed. A friendly female voice announced the recording and result. Very cool!

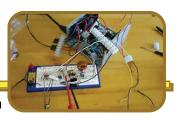
Since then, I purchased this neat App for my iPhone—it was only \$1.99 via the Apple App Store. As I mentioned, the App is also available for Android-based phones (or touch pads). Considering how much a radar gun costs and how tricky it can be to point it perfectly in the direction of the moving airplane, this App makes it extremely easy to measure speed. You do not need to hold it directly in the direction of the airplane; you just need to make sure that no other noise interferes with the sound of the object that you are trying to measure.



To make certain that measurements are accurate, the App uses your phone's location services (GPS) to use the correct atmospheric parameters needed for a precise calculation. I have not tested how the App results compare against an actual radar gun, but it would be an interesting experiment. They claim that it is as accurate as any consumer radar gun with an error range of \pm 0 mph for speeds up to 100 mph and \pm 0 mph for speeds between 100-200 mph.

Have fun! Waldemar

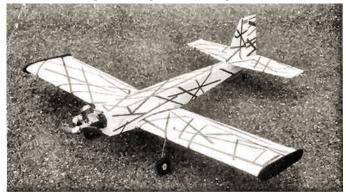
R ELECTRIC POW



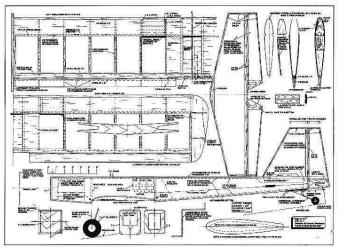
by Jon Putnam

Member, Jon Putnam, is our "official" education contributing editor. He has tried, on several occasions to do some training at the meetings but finds it a bit distracting with all the conversation and restaurant back-ground noises so he prefers to do his presentations in the newsletter. Here is the first installment of an endeavor called BEEP: modifying a sport design for electric power.

Beep: Modifying a Sport Design for Electric Power Part 1: Finishing the Wing and Landing Gear.



Beep is a low-wing sport or pattern-capable trainer designed by Derek Woodward. Some think it looks a lot like a Quickie Racer. It is a tail dragger built mainly out of 1/4" foam board with 1/32" plywood fuselage doublers, foam board ribs with balsa cap strips, and spruce spars.



Plans for Beep were first published in the 4/96 Flying Models Magazine. I copied the plans from the magazine and using the grid method enlarged them to full size for my own use. Originally I planned to power it with a fuel motor ... the original had a .25 -.32 mill in it and as Derek said, "it could drill holes in the sky." This is not really my flying style so with the advent of electric power and the fact that the plane sat unfinished on my bench for about 6 years I decided to modify it for electric power as a low wing trainer. Some of you may have heard the club meeting talk I did last Spring on choosing electric motors. Beep was used as the subject for that talk.

Stats on Beep are: Channels: 4

Power:

Engine: OS.25FP – OS .32 SF ABC

Motor: 300-350 Watts **Wingspan:** 44-50" Wing Area: 352 in² @Weight: 35.30 Oz.

Wing Loading: 14.47 Ounces /Ft²

Initial Construction: As I said, I had finished most of the construction of Beep a few years ago. A combination of my own procrastination combined with my move to Bend, meant it was still not finished it this year. My goal was to get this in the air but first two areas I had really procrastinated on awaited me, landing gear and wing mounting. Here are some aspects of Beef and its construction.

Wing: The wing is foam board ribs and inter-rib webbing, spruce

spars, and balsa cap strips, sheeting, LE and TE.



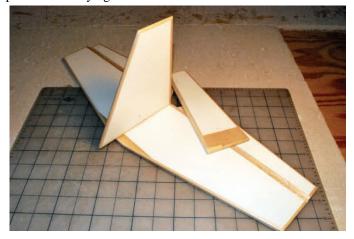
The original Beep tips were all balsa. I decided to build them out of foam board with 3 laminations of 1/16" balsa laminated to provide a durable outer edge.



Tail Feathers: The tail feathers are built up from foam board blanks with LE and TE of balsa. All locations for control horns are reinforced with balsa and will have a 1/64 skin on both sides for compression.



One thing you can see in the photo above is I like to use "keyed" devices to securely align my fin to the stab. The key is sticking up out of the stab and there is a balsa reinforced notch cut into the fin. Below is the tail assembled on the stab showing how positive this keying is.



Fuselage: The fuse is ½ foam board with 1/8" balsa edging inside. 1/32" ply doublers give it strength up front to past the wing saddle. I don't think I have ever built an easier fuselage than the one for Beep.



The shot above shows the plywood doublers. Also notice the fact that it is recessed down from the top to allow for the top decking. Above-right is the fuselage looking aft showing the termination of the doublers.



Sanding Dihedral: For some reason I really put off cutting the dihedral into this wing. The way I do it is to build a ¾" ply temporary top that sits on top of my work bench. On the front of it is a piece of 1 x 3 or 1 x 4 that is nailed and glued at a perfect 90 degree angle to the top. The wing panel center line is pinned to the front edge of the bench hook and the rear is blocked up to the right height. Run a sanding block along the 1 x 3 and voila you have the dihedral angle sanded in.



In the above photo look closely and you can see a plastic draftsman's triangle I used to ensure that the wing webbing was at a 90 degree angle. You can also spot some blocking at the front on the TE to hold that angle as I sand it.

The dihedral brace, shown below is 1/8" ply and fits into a pocket in each wing built into the first two bays of the main spar. My pattern for it is the yellow card stock.



Aileron Tubes: I decided to install mini servos outboard in each wing rather than the torque tube arrangement with one servo in the middle. Of course I decided this after the wing halves were built so now I had to cut holes accurately and make tubes to route the aileron extension wires through.

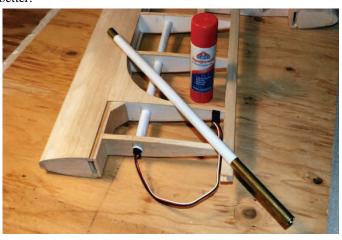


I made up a card stock pattern and a tool to cut the holes with.

The hole cutter is a 13/32" brass tube with 90 degree teeth cut into it with a triangular file. It worked great, so well I used it on the next plane I started work on.



A 3/8" brass tube slides inside a 13/32" tube perfectly. I used that as the mandrel for paper tubes. In the photo I show repositionable glue stick but later I switched to a regular UHU type glue stick and found it worked better.



Wing Mounts: The LE of Beep sticks down too far to just drill into the LE, stuff in a ¼" dowel and drill a hole in some plywood for it to mount to up front. I had to make a front wing mount out of balsa blocks as show below, shape it to fit the wing dihedral angle, and then drill it and the plywood fuselage former the ¼" dowel fit into. To do this you have to sand or cut the dihedral angle again into that block and then glue it back together as I did in the photo below.



Here you can see the finished wing saddle block, the dowel and the hole in the plywood former.



The rear wing mounts were two ¼" nylon bolts (Ace Hardware). The surface of the wing has 1/64" ply reinforcements. Before drilling the two mounting holes I inserted the front dowel into its mounting hole and then measured very carefully from each wing tip back to a point at the base of the fin where I inserted a pin on the CL of the fuselage. This is called trammeling a wing and insures the wing will be on straight.



I then drilled through the wing, into a ¼ ply block under each wing bolt with a tap drill and then tapped the holes for ¼" NC threads. This is a tricky operation and one you need to take infinite care with.

Landing Gear: I hate bending landing gear, especially a plane like Beep with two separate struts as they never seem to come out quite the same. Beep's gear is 1/8" music wire and as usual, as I do not own a bender, I used the beat on the wire in a vice method. This time I came up with a method that is almost fool proof. I cut the two wire pieces to length plus some extra at each end. I taped the two pieces of wire together. This is key. It means they won't rotate as much in the vice when being bent, and for better or worse will both turn out the same. The downside is you have to bend two pieces at once which take a heavier hammer. First, I did a scale drawing of the gear and marked the middle bend. I then made that bend and then followed with the remaining bend.



Here are the gear blanks taped together in the vice, the big hammer awaiting them.

Here they are mounted on the jig to check for accuracy of the bends. Let's be realistic here. They may not be perfect but they will be the same and that beats two imperfect gear legs that you then have beat the @#\$%\$ out of to make "similar" to each other. I cut the ends after I finished the bending procedure.



Will this guy ever get these babies mounted on the wing? Well, here is proof that if you try hard enough you will succeed. Notice that I did all this before I actually glued the dihedral together. That allowed me to more easily lay each wing half down flat and use a square to determine how far out in advance of the LE the gear protruded.



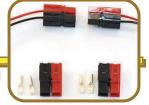
To remove the gear slip a straight slot screwdriver under the gear wire where it nests in its plywood reinforcing plates and gently pry up until you can twist the entire gear leg out. Try not to enlarge the hold drilled for the gear.



In the next installment, I hope to have the motor, esc, battery and servos installed. Til then, ciao....or should I say "Beep, beep!"

USING ANDERSON POWER POLE CONNECTORS

by Bill Hand



Member, Bill Hand, gave a presentation at the January meeting about using "solderless" connectors for our electric applications. I didn't get very good pictures of his demo so he kindly furnished this verbage and pictures outlining the process for making solderless connections.

Using Anderson Powerpoles

This is a solution for creating a single connection for all batteries. It is relatively inexpensive, is easy to use, and does not require soldering.

What you will need for tools are the following:

A small pair of needle nose pliers.

A wire stripping tool

A wire crimping tool.

There is a dedicated crimping tool (*GS88 Gardener Bending tool*), but you can use any standard crimping tool that provides a *center wire crimp*.

If you are concerned with the quality of your crimp, you can solder the contacts.

First, cut off the old connector. Next, strip the wire (1/4in is adequate)

To avoid accidentally shorting bare wires, strip and assemble the connector one lead at a time.

Slide the metal contact on to the bare wire, and crimp.
Using the needle nose pliers, slide the contact in to the plastic connector.
When it is seated it will "click".

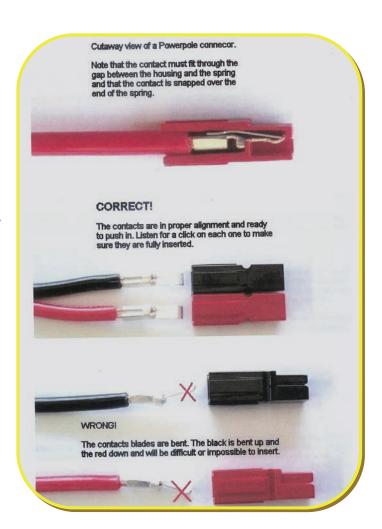
Repeat the process with the remaining wire.

Slide the two halves of the completed lead/connector together and you have a finished connector.

Align the poles so that the battery and ESC lead match. This may require separating the two halves of the connector, and reversing the sides then sliding them back together.

The following illustration provides the basic assembly information.





SHOW & TELL



January Meeting



Rick Burgess showed his new Eagle Tree Flight Stabilization module.



Jerry Burgess showed his new Valley View 40cc Twin Gas Engine



Jon Putnam brought in this old A-Ray model that he is re-furbishing



Greg McNutt brought in some LiPo charge/balance boards that are used to charge several LiPo's at once



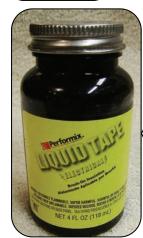
Greg also brought in one of his many battery boxes to show how to neatly and safely transport and store LiPo batteries. He also showed the multi-layered foam that he uses.



Tom Rainwater brought in his 5-cylinder Moki 250 Radial engine. What a beautiful engine!



Andy Niedzwiecke brought in this electrically conductive adhesive which is handy instead soldering to difficult areas.



Andy Niedzwiecke brought in this liquid insulating material that can be used instead of electrical tape. It is perfect for wire repair or isolating electrical things in small areas.



New E-Flite "servoless" payload release....AKA bomb drop.

BOB'S BIG AD-VENTURE 60



continued

Ok, when we left member Bob Ingram last month, he had received his Venture 60 kit, had set up a work area, bought an engine, taken an inventory and started on his first wing panel. Well, a month has passed so let's see what Bob has gotten done. Remember, this is Bob's first ever kit build!



Ok, proper dihedral set, wings joined and taped. Notice the tubes in the wings for servo wire routing.



Wing tips glued in place.



Now for the fuselage! Doublers in place and sides and top and bottom glued together. Good job Bob! You didn't make two of the same side!



Fuselage is really taking shape. Look at that craftsmanship will you!



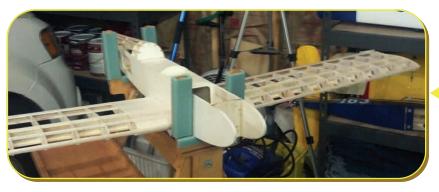
Glueing in the landing gear and wing hold-down plates.



Fuselage forward top deck in place. This takes a bit of patience to get the curve right.



Test fit of wing to fuselage.





OBITUARIES

Rest In Pieces









Tom Staffeld earned the coveted "crash trophy" with this spectacular showing.





Here we have Steve Younger showing off his handi-work on two different occasions. He says that his new transmitter did it!



Here we have Bob Ingrahm after an unsuccessful takeoff.





Waldemar Frank bought this beautiful plane and flew it once!

Remember, if you are at the field and would like to enter to win the coveted "Crash Trophy", please send photos of your "incident" to me and I will be sure to publish them in the next newsletter.

Bend Aero Modelers - 2014 Event Calendar



			Janı	ıary			
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
1				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	

January	1st-	New	Year	's	Day

	February												
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat						
5							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							

			Ma	rch			
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
9							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			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							

April 20th - Easter Day

	May											
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat					
18					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		2	a								

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

	July											
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat					
27			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							

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

	October												
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat						
40				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							

August											
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat				
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.

	November											
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat					
44							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.

		S	epte	mbe	r		
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				

September 1st - Labor Day

December							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
49		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		

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

- 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 intensions 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".

SAFETY REPORT



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, 2011

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 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 man carrying aircraft.
 - (b) See and avoid all aircraft and a spotter must be used when appropriate. (AMA Document #540-D-See and Avoid Guidance.)
 - (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 Aircraft 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 which could adversely affect the pilot's ability to safely control the model.
 - (i) Not operate model aircraft carrying pyrotechnic devices which 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-Recommended Field Layout):
 - (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 operate within three (3) miles of any pre-existing flying site without a frequency-management agreement (AMA Documents #922-Testing for RF Interference; #923- Frequency Management Agreement)
- 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 flight line.
- 7. Under no circumstances may a pilot or other person touch a model aircraft in flight while it is still under power, except to divert it from striking an individual. This does not apply to model aircraft flown indoors.
- 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.
- 9. The pilot of a 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.