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Bend Aero Modelers



ACADEMY OF MODEL AERONAUTICS

FAA-RECOGNIZED IDENTIFICATION AREA

A FRIA IS A DEFINED GEOGRAPHIC AREA WHERE DRONES CAN BE FLOWN WITHOUT REMOTE ID EQUIPMENT.

FLIGHT REPORT

JANUARY 2024



NEXT MEETING



January 24, 2024
6:30 pm at Black Bear Diner
Come early to visit and eat.

FROM THE EDITOR



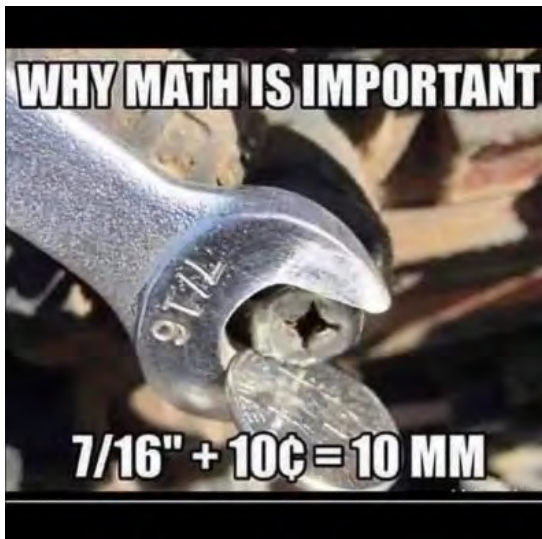
by Andy Niedzwiecke

Hi all and Happy New Year!,

I'm just getting back into the groove with this newsletter but I hope I find enough to keep you entertained. I would normally be showing some pictures of the Christmas party but I was unable to attend and no one submitted any so I'm sorry to all those that attended that you are not in this newsletter. I was going to include a blank page of the party with the captioned "pictured are those who attended" but thought better of it..... 😊

While I'm on the subject of Christmas, If you got goodies for Christmas, or bought a new plane or other goodie during that time, the January meeting would be a good time to bring your plunder to share with us during the "show and tell" portion of the meeting. We have been lacking in this area and all of us would be interested in seeing what you got or bought or are working on.

Gate code changes will be happening sometime during this month so if you haven't paid your dues now would be the time before January 31st so you will be able to have access to the field.



In closing, I got this little tidbit from our remote member Tom Schramm and though I'd share it with you.

Andy

Welcome



NEW MEMBERS

A warm welcome to our new members:

William (DJ) Akins, Patrick Combs, Matt Kehr and Steven Renfrow. We're happy to have you in this great organization and we hope to see you out at the field and at the meetings often. If you have not seen our field, check it out as it is the best field in the area and we have a lot of fun out there. Usually if someone is going out to the field they email the roster so people know that they will not be flying alone. Again, welcome to the club and we hope to see you in person soon!

FROM THE PRESIDENT



by Bill Broich



Greetings for the New Year.

As your new BAM president, I thought I'd take some time to introduce myself and give some background as to why I am so hooked on airplanes. Warning, this may put some of you to sleep.

My dad was military, first as an infantry sergeant in the Army in World War II. He fought in North Africa and up the boot of Italy until he received a massive chest wound. Took 16 quarter inch square skin grafts to close the wound. He was discharged at the end of the war, but soon re-enlisted in the Air Force and stayed in until his retirement in 1963. So I grew up on Air Force bases, which was pretty cool for a kid. Our last posting was Kirkland AFB in Albuquerque, NM. We would go on weekends to observations areas just to watch planes take off and land. To me that was the best. I had dreams of being a pilot, but my eye sight was not up to the task. I built countless plastic model airplanes, and hung them from the ceiling of my bedroom. I probably also built every balsa kit that Guillows made, flew them with rubber band power until they were a busted up mess. Eventually I built and flew glow powered control line planes, and wished for something radio controlled. Alas, that was way out of my price range.

As college and life happened, my plane obsession was put on the back burner. About 20 years ago the bug resurfaced, and I bought a balsa trainer, radio, and a Thunder Tiger 40 glow engine. This was in Eugene, and the club field was right next to the county dump. I learned to fly enough to fly on my own, got my oldest son involved, and spent most Saturday mornings at the field. Then the dump was expanded, we lost our field, and it was several years of no flying. Eventually a club member offered a chunk of his property for a new field, and that is what they have today. If you use Real Flight simulator, the club field is Carl Henson Field.

My job moved me for a brief time to Hood River and I joined the club there. Tough conditions there, with only a short, bumpy fabric runway, no facilities or even run up stands or tables and the wind is constantly blowing hard. Fortunately, I moved back to Bend (I actually am a Bend High Alum, class of 1972) and went out to check out the field. This was in March when COVID was shutting everything down, but I ran into a club member and he showed me around and how to get connected with the club.

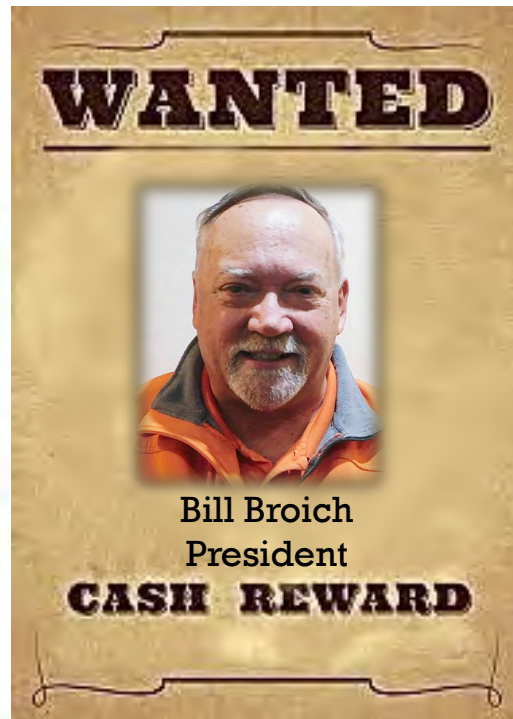
This has been a roundabout way to get to my point. I have been a member of a couple other clubs, and experienced the facilities at many other fields. We truly have a gem of a situation here. The field and facilities are first rate. For the most part our weather is agreeable for flying more often than not. But our real treasure is our members. The next bad guy I meet will be the first. Everyone makes anyone welcome, and everyone is more than willing to offer advice and help to solve a problem. We joke and give each other a hard time, but never in a way that will hurt someone's feelings. It's funny, one of the first things I do when I get to the field is set up my chair to sit around and talk. I may be out there for three or four hours, but I may only get in three or four flights. It is still a perfect day. So that is my story. I may not be good at flying, but I have a good time doing it. I will try hard not to mess up what we have here. I am always open to hearing what you would like to see being done differently, or if you like how things are. A lot of work was done in the past few years, and I don't see anything that screams to be taken care of. Let me know if you see it another way.

Bill Broich

YOUR NEW OFFICERS



Andy Niedzwiecke
Vice-President



Bill Broich
President

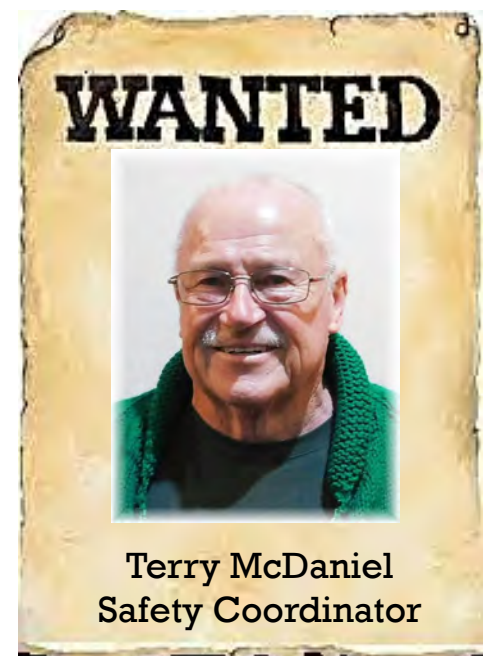
Well folks, you asked for it and you got it! Here are your officers for the year 2024. This scruffy bunch were the only ones that were willing to take on the task of managing this club's affairs so you are stuck with them for the year. Please help them with the task!



Dennis McMahon
Treasurer



Joe Newman
Secretary



Terry McDaniel
Safety Coordinator

SHOP TALK

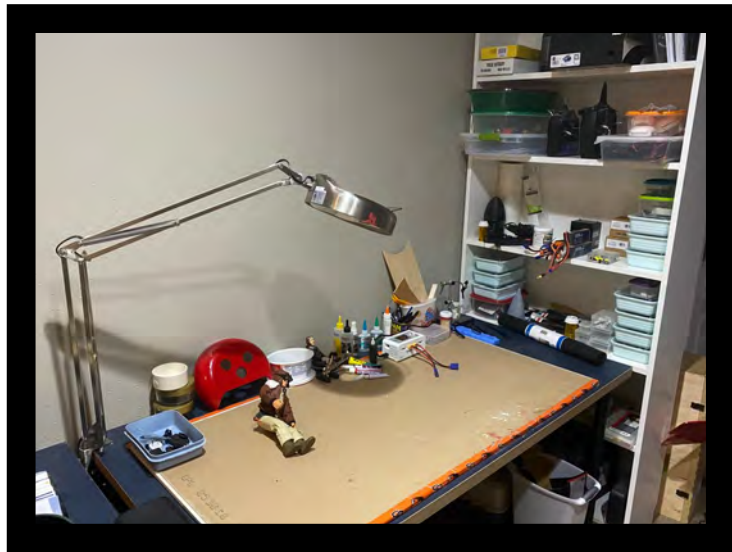


Well, time to take a look at member's shops/work areas. Number one, I thought, would be appropriate to feature our new president, Bill Broich's

submittal. Nice and Organized as you can see. Thanks Bill for submitting this for us to



One is my "power" area in the garage where I have the power tools I use on planes. Combo belt and disk sander, jig saw, hand drill and hand sander, along with a vise. The vise comes in handy to re-bend landing gear after a rough landing. I still need to add a drill press.



The other picture is my main work space. The table and file drawers are from Ikea. Stable, and it was only about \$75. On top of that is the building surface. I use sheet rock. I buy a full sheet, then cut it into 4 pieces of 4 feet by 2 feet. Flat and easy for pins to secure parts. Once one side is beat up, I just flip it over and use the other side. Plenty big enough for anything I would build. It was more than enough to build my Triplane from a kit. I'm including a picture for reference. I have purchased a lot of plastic storage tubs, with lids. I am trying to keep parts sorted for easier availability. And with all of my crashes, I have a lot of servos, wire leads, landing gear, power systems and miscellaneous screws, bolts, and fasteners from previous planes. Makes finding things a lot easier.



None of this is expensive or hard to assemble, but it is very functional. At least for me.

MEMBER PROJECTS

by Bill Broich



As most of you know I have a 70 mm EDF F-16 Falcon in artic camo. It is a fantastic flyer, but I've wished it was bigger. I recently purchased the 90 mm F-16 from Freewing, but it was in a two tone grey configuration. At the same time, I have wanted to try my hand at airbrushing, so the two came together. I purchased a starter kit on Amazon from Master Airbrush. It was complete with a compressor, water trap, and three different "guns". With a little research I determined that Tamiya water based acrylic paints, once diluted with their thinner, should work in my setup. I already had some Tamiya paints from building model tanks so I experimented on some scrap Styrofoam to try and gain some level of skills. Initially it seemed fairly doable for me so I proceeded with transitioning the F-16 to the artic camo.

First step was wiping the all of the parts down with isopropyl alcohol to remove any of the mold release agents still present. I taped off the clear part of the canopy, the installed lights, and the cheater intakes by the EDF unit. I didn't want to get any paint sprayed into that area and potentially impacting the motor or fan. The plane also had some narrow white tape applied as an outline on the upper surface of the wing. I debated whether to leave it and paint over it or removing it first. I decided to remove the tape, and hoped the primer and paint would cover up any sign of it being there.

I also had to decide if I should remove the markings already applied to the plane. I attempted to remove one in an inconspicuous spot, and quickly realized they would not come off easily. I made the decision to leave them and hope the primer and paint would cover them. I had already ordered a set of decals from Callie Graphics that would be very similar to the F-16 I already had.

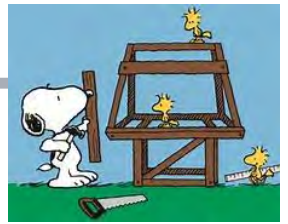
I then gave the whole plane a coat of spray on Tamiya primer, light grey in color. I used one whole can, and it covered the plane well. Once dried, you could not tell where the taped stripes were, so it was the right choice to remove them. The other markings, while still barely visible, I was sure would not be detected once the paint was applied.

I let it sit in this state for a few days while I tried to think of all the things that could go wrong, or what was I forgetting. Well, as Mike Chappell says, don't let fear or common sense stop you.



MEMBER PROJECTS

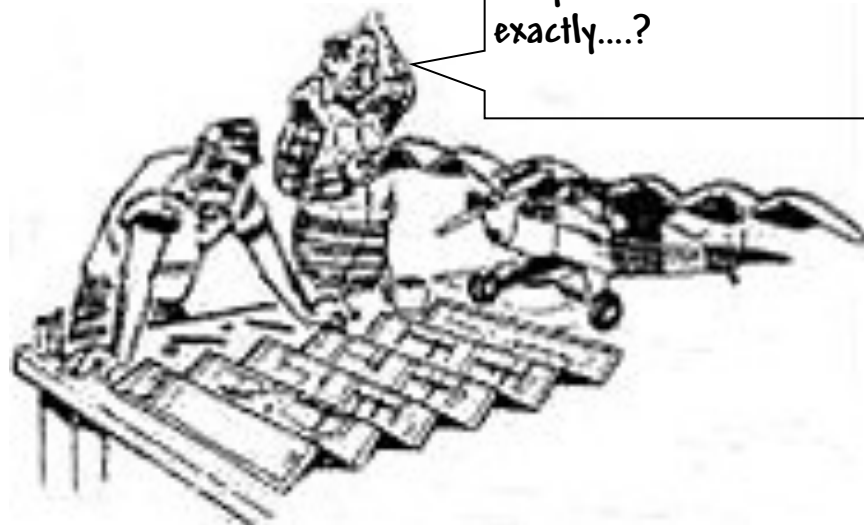
by Bill Broich



I decided to do the white sections first. I also thought it would be a good idea to “cut in” the white sections with a regular brush. This ended up being a mistake, as it took a lot of airbrushing to get the brush marks to go away. I also decided not to use masking tape to separate the sections. I thought it would look too, well, wrong. While my transition from one color to another is not perfect, it looks OK to me. In the air it will be fine, just don’t look too close on the ground.

On the white I used what was the best of the three brush-heads. It was hefty, made out of metal, with a two stage trigger. You pushed the trigger down with your index finger and pulled back to control the paint flow. Sounds great, but it proved difficult for me to keep an even flow. After several coats, I got a passable evenness to the white.

The next episode will be adding the grey and black, putting it all together, applying the decals.



As you can see, I followed the plans exactly....?

MEMBER PROJECTS



Mini Build Review — 800mm Dancing Wings SE-5A

By Dennis McMahon

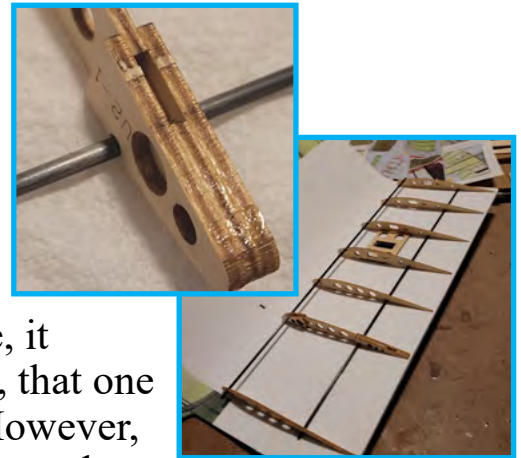
Having had some experience with foamboard construction, I jumped on this kit as soon as it came out. It had its own set of surprises, and I don't think I'd recommend it for a beginner who hasn't had some foamboard time. First, it's a totally different type of foam, being extremely pliable, which is essential in order to pull off the construction steps. As shown in these two pix, it's easy to bend the leading edge down to allow matching the shape of the thin plywood ribs. In fact, you have to get downright ornery with it to get it to adequately conform, and you need to apply a lot of rolling back and forth in your fingers across the entire span to achieve the flexibility to hold the desired shape.



The fuselage consists of a thin plywood skeleton that is laser cut to perfection, facilitating the required precision for the build. I assembled it using CA. Again, prior to applying the pre-colored foam outer skin, work the parts vigorously to enable proper alignment. I used UHU contact cement when applying the skin, enabling the firm adhesion to the first surface that set the baseline for continuing on around, doing about 1/4th of the circumference at a time. Again, DW's precise plywood and foam cuts were manifest as the assembly ensued.

I substituted a wooden dowel in place of the stock foamboard tail skid.

The wing, I felt, was unique in its assembly. First, there is no leading edge, constructed, as would be conventional, of carbon fiber, bamboo, or balsa, etc. Carbon fiber wing spars are used that fit tightly into circular openings in the plywood ribs. At first glance, it looked like, since these openings were partially open, that one could merely snap the carbon fiber spar into them. However, upon closer examination, I determined it best to insert each spar individually through each of the openings to ensure a tight, accurate fit. This requires twisting and coaxing each rib into its exact location along both spars, using the punchouts on the foam wing skin as a guide, one of the more tedious steps. However, it then becomes evident that exact placement allows the rib/spar assembly to firmly lock into place, providing a strong, integrated assembly for each of the four wing halves. Again, I used UHU in order to allow movement of each piece to ensure each tab fit (I'd like to say perfectly, but close enough to provide a sound assembly).



MEMBER PROJECTS



CONTINUED



A word of caution: While assembling doublers to the ribs and adhering the ribs to the foam, ensure that the slots for mounting the wing struts remain clear of adhesive. I ended up having to grind out a couple with dental drill bits mounted in my Dremel to make them fit. Additionally, though they do a pretty good job with the pictorial directions, sparing us the often quirky foreign language construction details, always look ahead, as with any kit, to ensure you don't end up having to tear something out to make a correction. In my case, I wrapped and glued the wing skin around one half of the lower wing to discover I should have installed the servo before finalizing the wrap. Try as I might, I couldn't shake the servo lead through the small holes in the wing ribs, nor could I get in with any combination of forceps, wires, etc., to route the wire. So, I simply cut a tight little Xacto knife slit along the underside and worked the lead through and glued the slit back together.

They provide little paper hinges for the control surfaces, but I opted to use my old standby hinge tape, which is not overly noticeable on the type of foam on this plane. Wing halves slide together over centered carbon fiber rods. Just make sure you make some marks on them to ensure each wing is longitudinally centered on the rods. Sharpie showed up well enough on the black carbon fiber.

Another tip; use care when inserting the small plywood tabs into the wings that will mate up with the wing struts. I had to drill out a couple whose holes became filled with glue. I found it best to drill each one out after mounting them and doing the same to the ends of the struts themselves. They indicate coloring these pieces with a Sharpie, however, I opted to use black acrylic paint. Finally, be ready for another tedious chore when it comes to bolting the struts to their connecting points. I left the struts attached to the fuselage pretty loose and connected them to the top wing's underside and then attached the struts closer to the outer edge of the wings and did a final tightening of everything.

I have high hopes for the maiden, as its light weight should make it agile. The CG turned out as indicated with the battery in the compartment's midrange. I did, by the way, add 2 Duct Tape hinges to the hatch's interior for extra strength.

All in all, a pretty decent product, and I suspect DW will bring forth more kits of similar construction.



SAFETY REPORT



Bend Aero Modelers

Bend Oregon | AMA District XI | AMA Charter 2311



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 Safety Committee members or in the absence of a Safety Committee member, an Executive Committee (EC) member 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 shall ensure proper operation of their aircraft and associated equipment prior to use.
5. Pilots shall show courtesy toward others and apply common sense when flying at BAM.
6. Pilots are encouraged to verbally enforce safe flying practices as appropriate.
7. All guests, spectators, children and pets shall be supervised by a BAM member at all times while in side the flying field fence and are encouraged to remain behind the pit tables.
8. When working on armed electric airplanes in the pit area, pilots shall always secure/restrain the aircraft from moving on the ground or rolling off a pit table. No rotating propellers are allowed.
9. No running fuel airplanes are allowed in the pit area.
10. R/C cars and other surface vehicles are prohibited anywhere inside the flying field fence.
11. Smoking is prohibited anywhere inside the flying field fence and shall be carried out in a safe and respectful manner in the parking lot.
12. Consumption of alcoholic beverages or controlled substances before or during flight is prohibited.

Pre-Flight Operations

1. Pilots shall use the run-up stands when starting fuel-equipped aircraft engines.
2. For larger aircraft, pilots may use the taxiway rather than the run-up stands to start or arm their aircraft while keeping it restrained with the help of another pilot or any reasonable means.
3. For extended engine tuning and troubleshooting, pilots shall use the run-up stand provided for such use at the West end of the field by the porta-potties.
4. Pilots shall never leave their aircraft unattended while the aircraft is running or armed, even if it is restrained.
5. Pilots that use AM/FM radio equipment (50MHz, 53MHz and 72MHz) shall attach the appropriate frequency pin visibly to their transmitter's antenna whenever in use and shall place their AMA card on the respective channel pin on the frequency board in the clubhouse.

SAFETY REPORT continued



POPP'S FIELD SAFETY GUIDELINES

- 1. Pilots shall taxi aircraft only on the taxiways and runway. No taxiing is permitted in the pit area.**
- 2. While flying, pilots must remain behind the safety fence and never block the taxiways.**
- 3. Only pilots or a supervised helper are permitted beyond the safety fence (ie, to retrieve an aircraft).**
- 4. Pilots shall verbally communicate their intentions during takeoffs, landings, flights and emergencies (ie, "taking off right to left", "landing left to right", "on the runway", "dead stick", "low pass" etc.**
- 5. 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).**
- 6. Landing aircraft have the right of way. Dead stick landings shall be called as such and given immediate right of way.**
- 7. Pilots shall not take off from or land on the taxiways. This applies to all aircraft types, including rotary-wing and micro aircraft.**
- 8. No more than five (5) aircraft shall be in the air at one time. This includes rotary wing and micro aircraft.**
- 9. Pilots shall call all maiden flights prior to flight. All other aircraft shall be grounded until the maiden flight has been completed.**
- 10. All hand launches shall be called to alert other pilots. Hand launches shall be performed either from the runway or the area between the runway edge and the safety fence.**
- 11. Hovering craft such as, but not limited to, 3D planes, drones, etc are to hover North, clear of the runway to avoid interference with fixed wing aircraft operations. Whenever 3D planes or drones are flying, it is recommended to do so when fixed wing aircraft are not in the air.**
- 12. FPV (First Person View) flight is only permitted when the pilot has a spotter per AMA regulations.**
- 13. Gas turbine operations are allowed as long as they are in accordance with the AMA Gas Turbine regulations on the AMA website.**
<https://www.modelaircraft.org/content/ama-gas-turbine-program>
- 14. When gas turbine planes are being flown, all other pilots are encouraged to relinquish the airspace to the turbine operations. An agreement between the turbine pilots and all other pilots for this recommendation should be discussed and agreed to.**
- 15. All planes that are reconstructed after a substantial crash incident shall be considered as doing a maiden flight and all considerations for a maiden flight shall be adhered to.**
- 16. If there are any questions that are not addressed here, the AMA Safety Handbook is available for reference at <https://www.modelaircraft.org/safety>**

Updated 12/17/2022 By Safety Officer Andy Niedzwiecke



YOUR PASSION. HOBBY. ONE COMMUNITY.
Academy of Model Aeronautics 5161 E. Memorial Dr. Muncie IN 47302 | (765) 287-1256 | modelaircraft.org

Academy of Model Aeronautics National Model Aircraft Safety Code

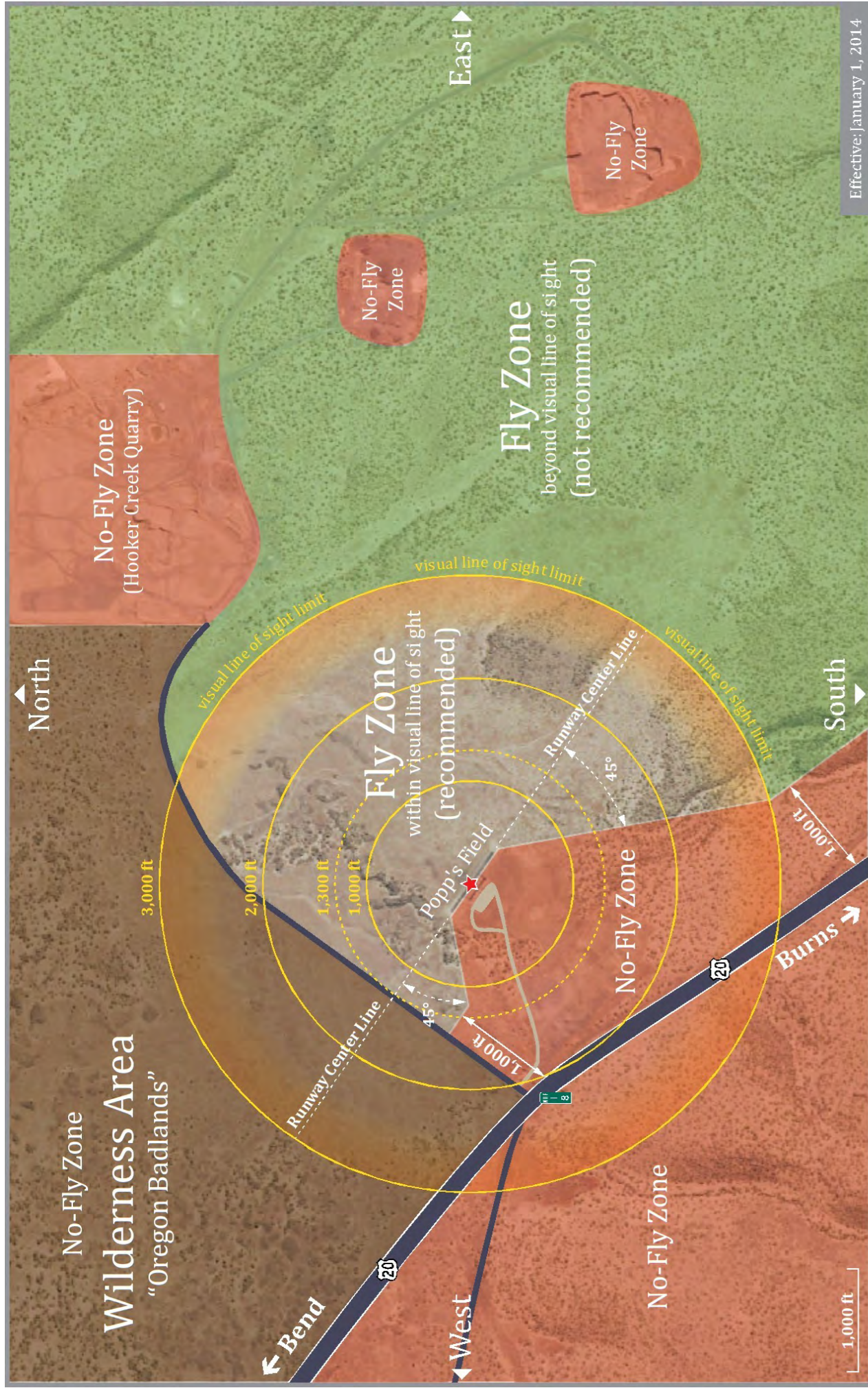
Effective January 1, 2018

A model aircraft is a non-human-carrying device capable of sustained flight within visual line of sight of the pilot or spotter(s). 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 related AMA guidelines, any additional rules specific to the flying site, as well as all applicable laws and regulations.

As an AMA member I agree:

- I will not fly a model aircraft in a careless or reckless manner.
- I will not interfere with and will yield the right of way to all human-carrying aircraft using AMA's See and Avoid Guidance and a spotter when appropriate.
- I will not operate any model aircraft while I am under the influence of alcohol or any drug that could adversely affect my ability to safely control the model.
- I will avoid flying directly over unprotected people, moving vehicles, and occupied structures.
- I will fly Free Flight (FF) and Control Line (CL) models in compliance with AMA's safety programming.
- I will maintain visual contact of an RC model aircraft without enhancement other than corrective lenses prescribed to me. When using an advanced flight system, such as an autopilot, or flying First-Person View (FPV), I will comply with AMA's Advanced Flight System programming.
- I will only fly models weighing more than 55 pounds, including fuel, if certified through AMA's Large Model Airplane Program.
- I will only fly a turbine-powered model aircraft in compliance with AMA's Gas Turbine Program.
- I will not fly a powered model outdoors closer than 25 feet to any individual, except for myself or my helper(s) located at the flightline, unless I am taking off and landing, or as otherwise provided in AMA's Competition Regulation.
- I will use an established safety line to separate all model aircraft operations from spectators and bystanders.

For a complete copy of AMA's Safety Handbook please visit:
modelaircraft.org/files/100.pdf



Effective: January 1, 2014

No-Fly Zone

Wilderness Area (No-Fly Zone)

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