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Bend Aero Modelers



FLIGHT REPORT

OCTOBER 2023



WELL, THE LAST TRIP FOR THE SEASON TO SCHAUB LAKE HAS COME AND GONE. THERE WERE FEW PARTICIPANTS BUT THOSE THAT DID TRAVEL TO THE LAKE BED HAD A GOOD TIME. IN COMING TO THE END OF THE SEASON BE SURE TO REMEMBER THAT THERE WILL BE DAYS WHEN WE CAN GET OUT TO THE FIELD FOR A QUICK FLIGHT SO DON'T PUT ALL OF YOUR PLANES AWAY FOR THE WINTER. REMEMBER WE HAVE A CHRISTMAS PARTY COMING UP AND AN EMAIL HAS ALREADY BEEN SENT OUT WITH SOME DETAILS SO PLEASE RESPOND TO BILL BROICH WITH YOUR PLANS FOR THIS EVENT. DON'T FORGET TO PAY YOUR DUES! DON'T FORGET TO LOOK AT THE BULLETIN BOARD IN THIS ISSUE FOR THINGS THAT ARE FOR SALE OR TRADE!

Next Meeting

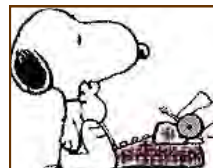


October 25, 2023

6:00 At Black Bear Diner

Food available
come early to visit and eat.

FROM THE EDITOR



by Andy Niedzwiecke

Just a heads up to all members, membership renewals are just around the corner and per the by-laws the dues are due no later than December 31, 2023. If dues are not paid at that point you will not receive the gate combo until you renew. If you do not renew by January 31, 2024, you will have to submit a new membership application and pay the new member price of \$75.00. A soft reminder is always a good way to keep things from getting expensive and letting your membership expire. Another reminder will be in next month's newsletter.

The place for the Christmas party will be at Tim and Cheryl Peterson's home, as they have graciously offered to host BAM. The party will occur on December 9, 2023 and will be a pot luck affair. In order to have a variety of dishes, look for an email from BAM in which you can sign up for a dish you would like to bring. BAM will furnish sodas, water and ice and if you want something else, bring your own.

That's it, see you at the Black Bear Diner on Oct 25 at 5:00 for dinner and 6:00 for the meeting.

Adult Membership	
New	\$75.00
Renewal	\$50.00 (if renewed before January 1st) \$75.00 (if renewed between January 1st - 31st)
Super Senior Membership	
New	\$35.00
Renewal	\$25.00 (if renewed before January 1st) \$35.00 (if renewed between January 1st - 31st)
Youth Membership	
New	\$35.00
Renewal	\$25.00 (if renewed before January 1st) \$35.00 (if renewed between January 1st - 31st)
Family Membership	
New	\$90.00
Renewal	\$65.00 (if renewed before January 1st) \$90.00 (if renewed between January 1st - 31st)

2023 OFFICER NOMINATIONS

Remember, nominations for 2024 officers close at the October meeting so if you are interested be sure to nominate yourself or someone by then or at the meeting.

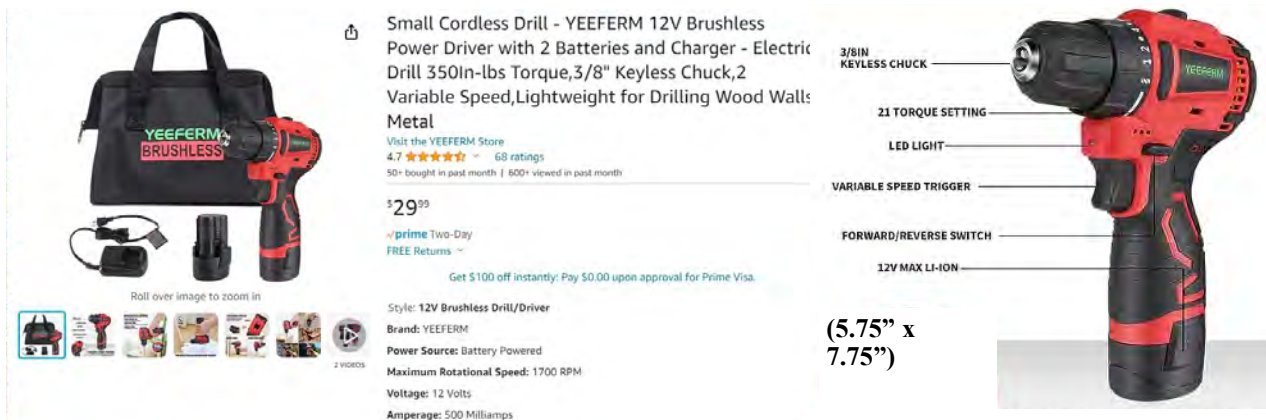
Current Nominees are: President - Bill Broich, Vice-President - Andy Niedzwiecke, Secretary - Open, Treasurer - Dennis McMahon, Safety Coordinator - Terry McDaniel, Newsletter Editor— Andy Niedzwiecke

GENERAL INFORMATION

Provided by our roving contributor Dennis McMahon

Another Nice Little Present To Give Yourself:

A few months ago, I did an article on some nice things to have for this hobby. I recently ordered and received another handy little item for my workbench. I have some pin vises with several sizes of drill bits, but often, I need to make a hole in harder or thicker materials, and always quicker. This baby jumped off the page at Amazon and arrived 5 days later. Cordless with 2 batteries, it's a great little addition. *Dennis McMahon*



Small Cordless Drill - YEEFERM 12V Brushless Power Driver with 2 Batteries and Charger - Electric Drill 350In-lbs Torque, 3/8" Keyless Chuck, 2 Variable Speed, Lightweight for Drilling Wood Walls: Metal

Visit the YEEFERM Store
4.7 ★★★★★ 68 ratings
50+ bought in past month | 600+ viewed in past month

\$29.99
prime Two-Day
FREE Returns

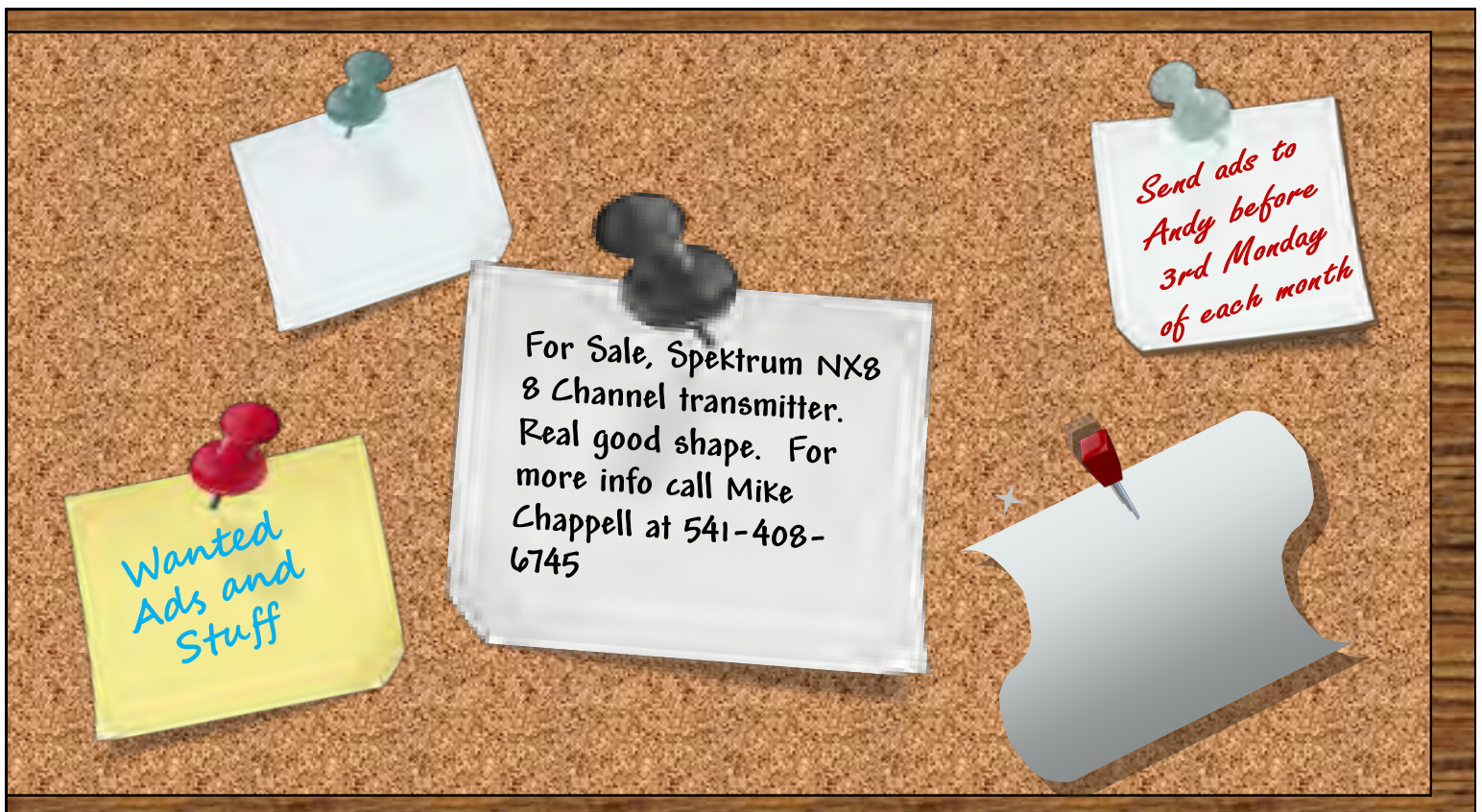
Get \$100 off instantly: Pay \$0.00 upon approval for Prime Visa.

Style: 12V Brushless Drill/Driver
Brand: YEEFERM
Power Source: Battery Powered
Maximum Rotational Speed: 1700 RPM
Voltage: 12 Volts
Amperage: 500 Milliamps

3/8" KEYLESS CHUCK
21 TORQUE SETTING
LED LIGHT
VARIABLE SPEED TRIGGER
FORWARD/REVERSE SWITCH
12V MAX LI-ION

(5.75" x 7.75")

BAM Bulletin Board



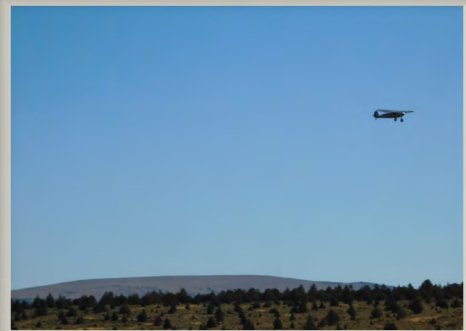
AT THE FIELD



Alan Shrum brought out his Carl Goldberg Chipmunk to fly. Yes it's glow powered but we can allow some noise once in awhile. He built this plane and did all the covering and painting. His flight went well, so it lives to fly another day!



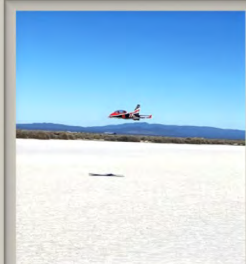
Here's member Dennis McMahon proudly showing off his scratch built Spirit of Sr Louis. He's done many articles on this plane and finally he got to maiden it. The flight went well and we were all amazed at how well it flew. Good going Dennis!!



Waldemar Frank Maidening his Sig Something Extra with an OS 55FX engine. All went well!



Here is new member Jeremy Flaxel with his beautiful BAE Hawk not at our field but at the recent Schaub Lake outing. It boasts a 120mm fan and is driven by a 12S battery system. Beautiful plane and flying Jeremy!





Nothing!



There was absolutely nothing to show or share at the September meeting! Come on Guys, there has to be something out there that some of you are working on or products you have discovered that the rest of us can benefit from. Bring something!



MEMBER CONTRIBUTIONS



Here's an interesting contribution from our trusty Idaho reporter, Tom Schramm.....aka Trouble

Lockheed's L-133 was the first conceptual jet aircraft under consideration in the United States beginning in 1939.

Power was to be a new design axial flow jet engine (2) that included an afterburner (original engine on display at Planes of Fame, Chino, CA). Military never bought into the design as they pursued prop power.

Link below shows a commercial resin model that was available a few years back.

<http://www.fantastic-plastic.com/LockheedL-133Page.htm>

Google Lockheed L-133 for more info.



(c) 2004 by Allen B. Ury



(c) 2004 by Allen B. Ury



(c) 2004 by Allen B. Ury



(c) 2004 by Allen B. Ury



(c) 2004 by Allen B. Ury

As early as the late 1930s, engineers at Lockheed Aircraft saw the potential of jet propulsion and began preliminary work on designs for a jet-powered combat aircraft. By 1942, they had laid the groundwork for the L-133, a single-seat canard-style fighter to be powered by two L-1000 axial-flow jet engines -- also of Lockheed design. However, the Army Air Corps saw little potential for jet propulsion and, without U.S. Government funding, the project collapsed. It wasn't until several years later, when word of Germany's success on jet propulsion began to make its way to the Allies, that Lockheed had enough funding to get back into the jet-fighter business.

This resin kit of the rare and beautiful L-133 was released by Sharkit of France in early 2004. The kit is still available at <http://perso.club-internet.fr/renax/sharkit/sharkit.htm>.

MEMBER'S ARTICLES



OH NO! HE'S STILL INUNDATING US WITH THE SPIRIT OF ST LOUIS!

By: *Guess Who! — Get a Life, Dude!*

So, some of you who were at Aug 23 meeting at Popp's may have heard me mention my Spirit of St. Louis maidening attempt the 21st. Motor seemed to have plenty of power, crosswind wasn't too strong, but I couldn't make it track straight enough to barrel on down the runway, so I doubted it would be able to make its trip from New York to Paris. Like the real Spirit, I had used a tail skid, with misgivings, as I like steerables and have created several such contraptions. So, I tore into the Spirit and removed the vertical stabilizer and rudder with a little denatured alcohol which, with care, works great for debonding hot glue from foam. Use a syringe with a very narrow tube to apply it and let it set awhile.

So, with the old components on my table, I cut out new foamboard pieces. However, I really desired more rudder authority for the next attempt, so I enlarged the new assembly a bit. One serendipitous surprise was that realizing I wouldn't be able to neatly remove and reuse the Callie Graphics "NX 211 and RYAN NYP" decals, I dug into my stuff and retrieved another set of Spirit graphics. (By the way, the NYP stands for New York to Paris.) I originally thought I was building to a roughly 1/10th scale; ended up having to send in another order for 1/12, so I had the original 1/10 graphics still available. Glad I hadn't returned them, and being a bit larger than those on the removed components, the enlarged scale seemed to work out OK.

Now, to the tailwheel. I've built some pretty hefty assemblies of these, strong but heavier than they should be. A natural thought is to just glue a small diameter shaft up through the foamboard rudder, but this obviously doesn't meet the strength, durability and operability requirements. So, what to do?

I removed the foamboard paper from the adjoining pieces down the common center of the vertical stabilizer and the rudder, hollowing out the necessary foam.

Now, my secret weapon: BAMBOO STICKS. These are so strong, but so light weight they're a construction material we should all have on hand. Here's the bundle I bought on Amazon. Straight sticks with straight grain, far, far stronger than balsa; capable of accommodating drilling lengthwise, yet retaining strength as long as it's done fairly precisely. I had used it on other projects and to create the Spirit's four wing supports, so I already had an appreciation for it.

Brand: CZWESTC 4.5 ★★★★★ 12
CZWESTC 150 Pieces Natural Bamboo Sticks, Craft Rods, Extra Long 15.7 Inch Wooden Crafts Sticks Stakes for Crafting Arts Projects



\$13⁹⁹

MEMBER'S ARTICLES *continued*



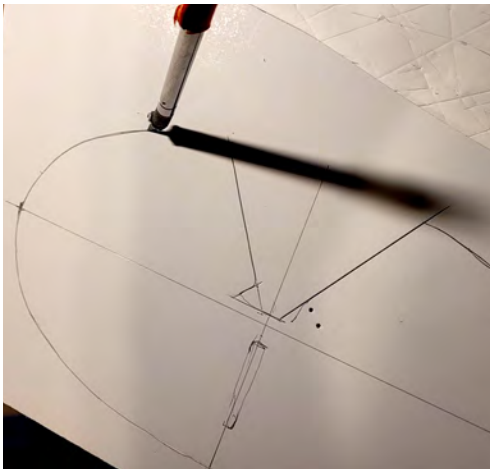
Cutting the bamboo sticks to the desired shapes for insertion between the foam-board's removed paper, I also formed a piece of plywood to strengthen the rudder's lowest portion and took one of my fly-tying bobbins loaded with thread and tightly wrapped the tailwheel wire to the bamboo stick and secured the whole works with CA. I cut slots with my Dremel and added a couple DuBro hinges and epoxied them in place. On this bamboo, my trusty DuBro hinge slot cutters were left in my stash; tremendous for balsa, but no match for the Oriental miracle sticks.



Then it was just a matter of gluing the pieces together . . . But which adhesive? Hot glue can be problematic, thicker than some others. CA is great, but it's a one-shot deal, no chance for error. I finally settled on good old Titebond wood glue some of us used by applying it to both surfaces in yesteryear when we weren't using Ambroid or others. It gave me time to work and clamp things together to dry and created strong bonds, so here's the finished re-make, ready for some more of that cheap Hobby Lobby silver acrylic. As one final touch, I put a wire keeper between the tailskid and the tailwheel shaft for at least a marginal strength improvement. Here's hoping it will stay the course and enable the Spirit to once again, from the pen of John Gillespie Magee, Jr. " . . . Slip the surly bonds of Earth, and dance the skies on laughter-silvered wings . . . "



OK, fine and good, at least on paper, but I was still longing for that maiden flight. I slipped out to Popp's where the "Shakerankin" phenomenon was in full force. The Chrises told me Bill and Andy had been out earlier, but didn't fly due to the wind, so I cooled it, but then it got calm and Mr. Shaker said "hey, wind's down, might want to try that maiden." I grabbed the silver contraption and put it on the table and was



fooling with the transmitter and out of nowhere a giant gust of wind picked it up for a premature airborne adventure and scrunched it forcefully on the pavement right on its tail feathers. The rudder was OK, so at home I grabbed the foamboard and cut out a new horizontal stabilizer and elevator. Also discovered that my elevator servo was loose, so I reinstalled it and was again anxious to turn the maiden flight into history, regardless of the outcome!

MEMBER'S ARTICLES *continued*



Well, well, well! September 16 arrives and tragically, I'm out of excuses for not maidenning. I've often liked to sneak out all by myself for this, but today, Andy, Bill, Alan, Darrell, Terry and Mike were out; beautiful day, wind settled down a bit and it was time to fish or cut bait. Made a few tweaks on the controls and finally ventured out; tried out the new non-scale steerable tail wheel and found it a little too responsive. Andy suggested upping the Expo, which helped. As it headed down the runway, it charged onward, but resisted going airborne for awhile, so I just kept it firewalled and steered it. Still a little slow in lifting off, I somehow had the presence of mind to quickly switch to high rates and up she went, New York to Paris. The gang was pitching for me, and one of my goals was to get a picture of it airborne, so everyone with a camera did their best to capture the moment. I only made a few laps, but, in my unbiased opinion, it flew beautifully, a sentiment echoed by the other BAMers there. Thanks, my friends! And, the real shocker, bringing it in for its first landing at LeBourget Airport, France in the guise of Popp's Field! Miracle! I even kept it over the pavement and settled it into a surprisingly nice landing. At almost the end of its ground travel, it did tip up a slight bit on its nose due to a crack in the runway, but I felt great with its first flight and a decent landing. My Dad would have been proud, since when he was 7 years old, Lind-

bergh achieved that historic New York to Paris flight. Gotta say the new old bird looked nice and comfortable in the air; I was thoroughly pleased with its performance giving me a



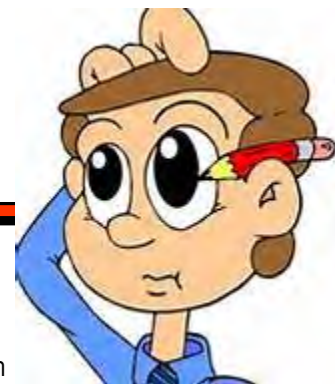
*Photos thanks
to Bill Broich*

good feeling, with it being totally scratch, 100% my concept, design, and build. Once my legs stopped shaking, I realized that the day had been a success. Nice to feel this way now and then!



DO YOU KNOW YOUR SPEED CONTROL?

by Waldemar Frank



Last month, I provided a basic summary about LiPo batteries and the general precautions associated with using them. In this issue, I would like to focus on Electronic Speed Controllers—or “ESC” for short.

The first thing I would like to point out is that ESCs for brushed and brushless electric motors are different, and that an ESC for a brushless motor cannot be used on a brushed motor and vice versa. Although it is not the main subject of this article, but brushless motors are generally more efficient and powerful compared to equivalent brushed motors.

This is one reason why the price for brushless motors has historically been much higher and why brushless motors have been less commonly used by the average hobbyist. With more powerful and cheaper batteries, brushless motors have also dropped in price over the years and are now the standard electric motor choice. Thus, I will focus on ESCs designed for brushless motors.

In simple terms, the Electronic Speed Control adjusts the revolutions of the motor depending on the position of the throttle stick on your transmitter. However, a typical ESC can do more than that. Most ESCs can be programmed to control specific settings such as the startup and shutoff of the motor, low-voltage alert and behavior, and other useful settings that a particular application requires.

For example, an electric glider with a folding propeller should use an electronic brake to allow the folding of the propeller blades when not in operation. If the free-spinning of the propeller would not be inhibited, the blades would not fully fold, resulting in unnecessary drag during gliding. An electronic brake that kicks in whenever the motor is shut off prevents a free-spinning propeller. My recommendation is to always review the features that a specific ESC offers before committing to a particular product. In general, the ESC should be suitable for the application at hand, including the power requirements of the airplane.

When selecting an ESC, one critical design parameter is the current rating of the ESC. Most ESC classifications use the current rating in their product title to make it easy to identify the right current without having to review the entire set of specifications. The current rating usually refers to the maximum continuous current that the ESC can sustain without damage. In order to determine the required ESC current rating, you need to know the design specifications of the motor, including the possible battery types and propellers used together with the motor for a particular airplane type.

Unfortunately, not all motor manufacturers provide sufficient details about different propeller-battery configurations to easily select the right design current for your application. However, at a minimum, manufacturers indicate the design current and the maximum current a motor will draw. If no additional information is supplied, you can simply use the maximum current and add about 20%-25% to the specified current value to determine the current for a suitable ESC.

For instance, if the maximum motor current is 45A, then the ESC current rating should be around 56A ($45A \times 1.25 = 56.25A$). ESCs are often provided at 5A or 10A increments for ESCs rated at or above 20A. So the next highest available value would be a 60A ESC. In cases where you do not have access to actual current values for different battery-propeller configurations for your electric motor, this simple calculation is appropriate. The disadvantage is that you will likely end up with an overrated ESC current and buy a bigger ESC than needed.

In cases where you have access to the specific current draw for a particular battery cell count (voltage) and propeller (diameter and pitch), you can use that current as your design input parameter for calculating the needed ESC current. Another option would be to use a wattmeter to measure the current draw, which would provide the most accurate value for the selected configuration. However, please note that it would only give you the current draw for static conditions, meaning the current the motor would draw when the plane is not actually moving. The current draw during flight can be larger. This is why you should add 20%-25% to the measured value when calculating the needed ESC current rating.

DO YOU KNOW YOUR SPEED CONTROL?

by Waldemar Frank

continued



Selecting an ESC based on the amperage rating alone is not advisable. You should always review the programmable features as well. There are other design elements that should also be considered, such as the number of cells (for LiPos) that the ESC can support. Not all ESCs can support any number of LiPo cells (voltages). Thus, also check the minimum and maximum number of LiPo cells that the ESC of interest can support. This is particularly critical if you reuse an ESC for another plane. For example, if your ESC is designed for 2S-3S LiPos, but you fly the plane on a 4S battery, you might damage the ESC and potentially lose the plane.

Moreover, compared to combustion-based power systems, electric airplanes also have the advantage that the same power source (battery) can be used for both the motor and the receiver/servos. In order to ensure that the receiver and servos don't get damaged, some ESCs have a separate, dedicated circuit built in that regulates the power needed for the receiver and servos. This separate circuit is called *Battery Eliminator Circuit* or "BEC" for short. The BEC ensures that the battery voltage is adjusted to an acceptable operating range for receivers and servos (around 5.5V). This allows the use of batteries with higher cell counts (higher voltages) without damaging the receivers and servos.

In addition to adjusting the battery voltage, the BEC regulates the current supplied to the receiver and servos since the current draw is significantly lower than that of the motor itself. The typical range is from 1A to 5A. This should not be confused with the amperage rating for the ESC, which usually refers to the maximum continuous current draw as previously described.

Another important safety feature that an ESC with BEC provides is the cut-off voltage setting, which controls the cutoff of the battery power to the motor to prevent the voltage from dropping to a level that could cause signal loss to your plane (receiver). Some ESCs allow the adjustment of the cut-off voltage while other ESCs come with a pre-configured fixed setting.

For example, the voltage of LiPo batteries drops rapidly when the individual cell voltage reaches 3.3V (which is at about 20% of the battery capacity). The default cut-off value is typically somewhere between 3.0V and 3.3V. When the battery voltage reaches the cut-off voltage of the ESC, the ESC either fully cuts off the power to the motor and just powers the receiver and servos to allow a dead-stick landing or the ESC switches to a pulsed power setting that provides short, pulsating power bursts to the motor to allow limited-powered flight for a safe landing.

The BEC can come in two configurations: (1) a Switching BEC (SBEC) or (2) a Universal BEC (UBEC). To keep it simple, ESCs with a switching BEC (SBEC) are usually more compact. Some pilots prefer ESCs with a UBEC for its simplicity and more robust design (and lower price).

ESCs with a BEC are suited for most small and medium-sized electric planes (e.g., <100A current rating) because the BEC provides adequate power to support the current requirements of the receiver and typical size and number of servos used on such airplanes.

However, if you want to fly larger electric planes, or in general planes with higher voltages and current draws, you could use an ESC with OPTO capability (Optocoupler). An OPTO ESC isolates the receiver and servos from the battery power used for the motor. As a result, you will need to connect a separate (dedicated) battery for powering the receiver and servos. Please note though, that some manufactures use marketing terms that can be confusing and ESCs that contain the term "Opto" may not truly OPTO ESCs. The best way to confirm the ESC capabilities is to review the actual specs sheet and available features before buying.

Hopefully this short introduction to ESCs will help you with your next project and ESC selection.

Bend Aero Modelers - 2023 Club Calendar



Club Meeting



Club Event



BAM Membership Renewal Deadline



BAM Christmas Party

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

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

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

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

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

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

June 17th - Schaub Lake Fly in

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

July 15th - Family BBQ & Fun Fly

July 26th - Night Flying (after club meeting)

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

September							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
35	27	28	29	30	31	1	2
36	3	4	5	6	7	8	9
37	10	11	12	13	14	15	16
38	17	18	19	20	21	22	23
39	24	25	26	27	28	29	30

September 30th - Schaub Lake Fly in

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

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

NOTE: November club meeting is a week earlier due to Thanksgiving.

December							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
48	26	27	28	29	30	1	2
49	3	4	5	6	7	8	9
50	10	11	12	13	14	15	16
51	17	18	19	20	21	22	23
52	24/31	25	26	27	28	29	30

December 31st - Membership renewal deadline

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



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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

