



## March Meeting Minutes

by Lanora Campbell, Secretary

Quorum was called and counted and the meeting was called to order by President David Campbell at 7:00 PM. There were 21 members present.

The minutes were approved as published in the March newsletter. A treasurer's report was made by Bob Schwandt. The report was accepted.

A membership report was given showing 64 paid members.

### Old Business:

The Gate combination will be changed as of the publishing of this newsletter. The new combination is 3006.

Officer's patches were given out to the 2008 officers by our President.

### New Business:

1. Scott Causey spoke to the group regarding a pylon event this summer. A motion was made and passed that the club would have a Sport Pylon event. We will need a CD and 8 to 12 volunteers for the event. See Scott! Date TBD

2. The float fly date is set for August 2 and 3<sup>rd</sup> pending Park Board approval.

3. Justin Heath set the night fly for March 22<sup>nd</sup> and April 20<sup>th</sup> as an alternate. Justin says we will be out there every full moon as well. (Electric only)

4. Field work party is set for April 12<sup>th</sup> at 10:00am. We need weed eaters and painters for painting our

building. Ralph Todd is getting the paint and rollers!

5. Bob Schwandt reported on the static display at the Hulston Cancer Center. It was held by the Nixa South field but we were invited to participate. Bob said they had a great time! Our club wants to do a static display this summer as well. Tim Hankins will announce the time and location as details are available. This will be put on the TV community calendars. Flyers will be made for the event by Bob Schwandt. (Paper provided by Scott Causey)

6. Club open house event is still alive. We just need to determine who is going to carry the ball on this one!

With no other business to come before the club the meeting was adjourned at 7:40 PM.

The show and tell was a huge success! Justin Heath showed us his night light set and told us how to make one for ourselves. Jeff Schmidt did a great job with his Lithium battery demonstration. The club loved it. Dave Campbell brought his work in progress JR Vibe 90 Helicopter and went over some of its features.

David said the oatmeal raisin cookies were a big hit as well.

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## UFO Sightings

This is something new that I am trying out to (hopefully) generate a little more interest in the website and make it more than something our members know we have, but can't for the life of them remember what the address is.

Every month I will post a picture or two of an aircraft. Most will be little known or unusual in some way. Then I will create a thread for the aircraft in the forums of the website with a little more information and leave it open for discussion.

Who knows? Maybe one day YOUR favorite aircraft will grace the pages of the newsletter and lead you to the website and maybe you'll find out that someone else in the club likes it as well.

If you know what this month's "UFO" is, login to the website and let us know why you like it. Give us some background on it. Have plans to build one? Awesome! Let us hear about it.

If you have any suggestions of an aircraft that you want to see discussed, just drop me a line and I will be more than happy to profile it in the newsletter!



## President's Corner

by David Campbell, President

Greetings again fellow fliers! Our March meeting moved along very quickly and we got to the show and tell part as promised. I had a lot of good feedback from club members

saying that we should be doing something like this at more meetings. I agree! Sharing what you have learned from your experiences is a good way to help promote the sport of flying. Russ is going to do a presentation on Spectrum radios at the April meeting but we could also use some other presentations if

anyone has any ideas. I would also like to get some more volunteers for future meetings as well. If you have anything you would like to share with the rest of the club I would encourage you to let me know and I will get you on the agenda.

Here are some ideas that members have asked for.

1. How to trim out a plane for the best flight characteristics. (Wing angle of attack and all those details that make a plane fly well)

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## Choosing the Right ESC For Your Electric RC Airplane

Choosing the right Electronic Speed Controller (ESC) for your radio control electric aircraft can be made quite simple. ESCs are available with many different features, limits, and price ranges. Sorting through the list of ESCs can be done by identifying what you need, and eliminating the rest.

The general procedure is to narrow the list down to ESCs that will get the job done, and then make your final selection based on price and preference. First, select ESCs based on their most fundamental features.

### Brushed or Brushless?

R/C speed controllers are separated by the type of motor they work with, either brushed or brushless. If your motor has two wires, it is brushed, and you need a brushed speed control. If it has three wires, it is brushless motor, and you require a brushless speed control. An exception to these rules are ESCs that can work with both types of motor, however this feature is not commonly available. Castle Creations and Hacker Brushless are two manufacturers of brushless motors and ESCs.

### Current Rating

An ESC will have a power limit. To handle more power, the ESC needs to be larger, heavier, and is more expensive. It's important to know the peak current your motor is going to pull at full throttle. This determines the current rating you should look for in an ESC. Always choose an ESC with a current rating that is higher than what you need. If the motor is going to pull 12A, a 25A-rated ESC is a

### President's Corner (From Page 1)

2. How to set up proper linkages on control surfaces.
3. Proper exponential and rate usage.
4. Adding lead weights verses adding battery weight for balance.
5. How to cut a cowl that actually fits over the engine.
6. How to cover using Monocoat.
7. Battery care and storage

These are just some topics that have been mentioned to me. Your topic can be anything that deals with the flying sport. It doesn't have

much better choice than a 10A-rated one. The 10A ESC will probably overheat and cook, even if you only fly at half throttle. ESCs are relatively light and maintain great resale value, so this is one item in your power system where skimping isn't worth while.

Choosing the correct type and identifying the minimum current rating are the two big steps. The next choices depend on your preferences. Here are some of the features and limits that can affect your selection.

### Voltage Rating

All ESCs have voltage limits. Some even have more than one! What is your battery voltage? Choose an ESC that is designed to work with an equal or higher voltage. Some ESCs are designed for low voltages (below 13V), some for medium voltages (below 25V), and some for high voltages (above 25V). You shouldn't connect a high voltage battery to a low voltage ESC, but it is also wasteful to use a high voltage ESC with a low voltage battery. The second voltage rating that some ESCs have is based on their Battery Eliminator Circuit (BEC). For an ESC to provide power to your receiver and servos, it has to drop battery voltage down to 5V. This becomes difficult once battery voltage is above 13V, so usually a separate receiver battery or voltage regulator is required. Consider what is going to be powering your receiver and servos.

to be a long presentation or complex. Just share something that you think would be interesting to others in the club.

I have to tell a funny story on myself. I built a new Great Plains Revolver this winter and put my OS 46FX 2 stroke in it with a Pitts style muffler. I took it out March the 10<sup>th</sup> and got it ready to fly. I did remember to preflight the plane and in doing so realized that I had set the ailerons up backwards. I reversed the servo and finished my preflight check. No one was at the field yet so I decided to put the plane in the air. I did, trimmed it and flew it about five times. I thought it was a little sensitive but did not think to check my Exponential

## Calendar of Events

April 2008						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			
April 3rd - Monthly Club Meeting, Main Library Room A						

### Low Voltage Cutoff (LVC)

To protect your lithium polymer battery pack from being discharged too much, most ESCs can shut down when they sense battery voltage has become too low. This is almost always a useful feature, as it can save your li poly battery from being permanently damaged.

### Price

ESCs with the same current and voltage rating can vary in price. Investigate this large market, and put prices on the features that you want.

### Programmability

Some ESCs simply work out of the bag, like a servo. Others can be fine-tuned and set up with exotic throttle profiles. The most advanced can be configured via a computer program and cable.

settings until I got home. I found that I had set the rudder and ailerons Exponential settings backward. Boy did that make it sensitive in the middle stick position.

Lesson learned. I had was in no hurry to build the plane over the winter but in starting and stopping the process I had forgotten what I had and had not done or checked. I bet it will fly a little easier with the Expo set correctly! (I thought it was a little hard to taxi)

Well good luck and keep 'em flying. Hope to see everyone at the April meeting.

# Springfield R/C Club

(Black Sheep Squadron)

Springfield, Missouri

Name: \_\_\_\_\_

Name of significant other: \_\_\_\_\_

(Optional)

Mailing Address: \_\_\_\_\_

\_\_\_\_\_

**City:** \_\_\_\_\_

State: \_\_\_\_\_

**Zip:** \_\_\_\_\_

**Telephone: Home** \_\_\_\_\_

(Optional) Office or Cell: \_\_\_\_\_

Radio Frequencies You Will Broadcast On: \_\_\_\_ \_

E-Mail Address: \_\_\_\_\_

**AMA Membership Number:** \_\_\_\_\_

***Note: Proof of membership in the AMA is required for membership in the Blacksheep Squadron.***

All members are to complete and sign this form, mail a copy of your AMA card along with this form and include a check payable to SPRINGFIELD R/C CLUB to:

William "Bob" Schwandt, Treasurer

Phone: 417-268-0088

3638 W Driftwood St

Email: [treasurer@mchsi.com](mailto:treasurer@mchsi.com)

Springfield, MO 65807

***I agree to abide by the club's constitution and bylaws, club field rules and the rules and regulations of the Academy of Model Aeronautics.***

\_\_\_\_\_ Date: \_\_\_\_\_

Member Signature

## 2008 Officers

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