



# AIRMAIL :: VOLUME 25 :: ISSUE 3 :: MAR :: 2013



Next Meeting

**April 4, 2013**

S. Campbell Library Center  
Story-hour Room

Next Event

**Field Day**

April 20th

Check us out on

**Facebook!**

Springfield  
RC Club

Share in the  
hobby!

### President's Corner

New siding!! Thank Aaron for making the arrangements when you see him!



### Meeting Minutes:

The meeting opened at 7pm with thirteen members, and two visitors, present. One of which joined by meeting's end. Welcome aboard Darrell Wilson! The other visitor, Tony Cocchiara, is new to flying but has his own aircraft and a willingness to be taught. He is well on his way to becoming a member and a welcome addition to our group of pilots.

The February minutes and Treasurer's report were accepted and passed as published.

We voted and accepted a bid from Aaron Pennington's submission. The field house will be metal-clad and maintenance free! This for around \$1600 and well worth it!

### The Runway

George Ashley has volunteered to tackle the always present runway issue. Thanks George!

We have a tentative Float Fun Fly date, at the Lucas Oil Speedway's lake set for April 27th, 2013 for club members only. This will be a bring your own lunch casual event for a slightly cooler time of the year.

We will coordinate a mid-year static display for the speedway, and a second float fly for surrounding clubs in September. Keep an eye out for details. We have Butch Scott to thank for the arrangements!

Bob Thompson donated a Hobbico trainer to the club, to be used by all interested instructors, for the sole purpose of getting new pilots in the air. Thanks Bob!!

The participation opportunity at the Midwest Legends hosted car show, outside of Clever, MO., was announced for member consideration. The event will benefit the American Diabetes Association and is set for March 23rd.

With this business out of the way, the meeting was adjourned at 7:43pm and mingling commenced.



David Sleeth - Owner

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For more information - Officers, Board Members and contacts see the website



## Programmable Radios

An interesting article on the benefits and uses of programmable radios. The first of a two-part article by our own Dan Curtis.

Computer radios...they can be confusing, ignored expensive and exasperating. They can also be very helpful tools for our continuing efforts to enjoy our hobby. They can make a poor flying plane flyable, they can make a good flying plane great, but they can not make a poor flying plane fly great. Over the years I have heard people talking about the good and bad of these fancy radios. As the years have passed, the prices of the radios have dropped and the capabilities have greatly increased, to the point of being able to obtain some pretty powerful performance tools within a moderate budget. I thought I might write a few thoughts on how some of the features of these radios work, and to what purpose they can be used to make our flying easier and more enjoyable. Hopefully some of the info will be of use and not just a re-hash of common knowledge to everyone. So, here goes.

## Rates

One of the first things we notice is that our radios have some dual-rate switches. Most will have two rates for all three primary functions, aileron, elevator and rudder. Some will have three rates. These rates will let a pilot set up his plane for different flying feels and performance. Take some time to watch some planes fly during a busy day at the field. You will notice that a large amount of the planes will be somewhat twitchy in the air. Pilots are constantly over controlling with their ailerons and elevators with the resultant jerky movements around both the pitch and roll axis. Most of the time this is due to way too much control throw. Large throws have their place, and can be a lot of fun, but for general flying or smooth maneuvering, lower throws are much easier and nicer. Dual rates allow a pilot to

go from mild to wild while flying, and better able to control his plane in all situations. Rates are adjusted after a flight to obtain the desired feel and action of a plane.

## Flight Modes

A little more advanced use of the dual rates would be in the Flight Mode set-up. Radios may have from two to five Flight Modes available to the pilot. In their simplest form, they are a way to change one or more flight function rates with a single switch. Many radios have these switches assignable for the pilot's convenience. An example of Flight Mode usage would be in a Snap set-up. Flight mode 1 would have all the rates set for normal flying, mode 2 would increase aileron rate, decrease elevator and increase, or decrease rudder throw as necessary to establish nice controllable snaps. This condition would be achieved by throwing one switch instead of three. Other mode set-ups could be for landing, spins or 3-D flying. Flight Modes are very useful and are limited only by the pilot's wants or needs in each plane he is flying. I use a couple of modes on my current plane to aide in specific portions of the sequence that I fly. I have a mode set for inverted, or negative snaps, and a second mode for positive snaps. My transmitter, and some other's, has a nice little feature that ties into flight modes. When I have a negative snap coming up, I flip my flight mode switch to mode 2, this sets my ailerons higher, my rudder is reduced by 45% and the elevator by about half. However, my actual throws will not change until I have moved the elevator stick past 80% of down elevator, then the flight mode settings kick in. This allows for the snap, and the controls return to normal settings when the snap is finished and the elevator stick is returned to below 80%. Then I can turn the mode off completely by flicking the switch at my convenience. Flight Modes can help you do a lot with very simple single-switch movements. They are not hard to set up and they can help you refine your plane control.

## Coming Next Month:

The article covers mixes, and how they can greatly improve your plane's flight characteristics, or, as Dan puts it: Hide some of its poorer ones. Keep an eye out!

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**Magic Scratch-build Part 2**

Last month we left off ready to prepare the wing ribs for commencement on the wing structures. We will be needing the finished ribs, 12 per wing set, and a selection of 1/4" square stock for the stringers and 1/4"x3/4" stock for the TE, and a preformed LE. Also needed are four lengths of your desired hardwood for the spars (I will be using basswood) and four sheets of balsa 1/16"x3"x36" for sheeting forward of the spars, and the root areas. The scraps of the sheeting will be used for the webbing in the first three rib bays. Lastly, 1/16"x1/4" strips for capping the ribs will be needed.

The plans covered in this build can be obtained upon request and include all revisions used here.

**Ribs Laid Out**

Using the pattern, we mark all notches for the stringers, spars, LE and TE, as well as lightening hole. You can't see in the photo, but the centerline for the joiner tube is also marked accordingly on all ribs. Only the inboard four will be drilled and fitted for the bar socket. This process must be done on each individual rib, not stacked, to ensure accuracy along the wing's length. Take your time and enjoy the results. Rush through it and reap the consequences.



Once all the ribs are notched and lightened, lay them up into a stack to check the alignment of the notches for the stringers, LE, TE and lightly sand where needed to align without oversizing the notches. I use a 1/8" aluminum bar wrapped with sanding bar paper to achieve this.

When they all are identical, you will be ready for the next step in the process: Building a wing. See you next month for the continuation.

**Flying Weather Approaching Fast**

There have been sporadic flights made at the field these first few months of the year, but the days are growing longer and the weather is beginning to warm nicely, so surely the flights will get more frequent. Here's to a great season and plenty of happy pilots!

**American Diabetes Association**

As mentioned at the meeting, the Midwest Legends are putting on a charity car show on the 23rd of this month, just west of Clever, MO., and we have been invited to perform some flying demonstrations for their cause. Come on out and see what's happening with the cars and planes!

The show will be on Hwy 14 just west of P hwy and will start filling spots around 9 am. Weather permitting, the club members who elected to help in this event will be able to put on quite a show for the crowd. Worse-case scenario is that we'll be able to show off some planes and be able to check out all the hot rods and dirt track cars that attend! Hope to see ya there!!

**New Members**

As always, we are glad to welcome new members to the club! There are some really great people out there at any given time, to lend a hand and help get the newbies used to the protocol of the field. Hope to see ya all out and having fun!



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