



Newsletter for the Sentral Illinois Radio Society, Bloomington, IL

A.M.A. Chapter 621

May, 2006

## Fund Raiser for Leukemia being Held at the Field

Member Wayne Geffon is planning a fundraising event the Weekend of May 20th at the flying field.

Wayne's wife is training now for the Chicago Marathon. She is running with Team in Training on behalf of the Leukemia Lymphoma Society.

[www.teamintraining.org/il](http://www.teamintraining.org/il)

Some of you may know their niece was diagnosed with Leukemia in 2004 at the age of 6. She is now in remission and has a little over a year of treatments left.

They are planning on having lunch and a raffle to help generate some funds for her run.

All the money gets donated to blood cancer research.

This event is open to any and everyone wishing to come out and help in this worthy cause or those just wanting to have a fun day of flying.

See you there.



I was into 1/4 Scale for a while and then I figured "why not go the other way..."

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**Club Meetings**

Club meetings are held on the second Saturday of each month at the flying field in Covell, IL. Meetings begin at 7:00pm during the winter (CST) and 8:00pm during the summer (CDT).

**SIRS Inc Meeting**

**April 8th, 2006**

**CALL TO ORDER:**

President Tom Kirk called meeting to order at 8:00. There were 15 members present.

**PREVIOUS MINUTES:**

Mike Wilson read the previous minutes from the March meeting.

**TREASURE'S REPORT:**

Treasure Jim Danforth gave the treasure's report. Motion passed.

**OLD BUSINESS:**

Todd is still reviewing the club bi-laws and constitution. The officers are reviewing the Information provided.

**NEW BUSINESS:**

A discussion of a Helicopter Fun Fly at the SIRS club sometime this year.

Saturday May 13<sup>th</sup> the Prairie Aviation Museum. They would like to have us do a static show. We need to have some volunteers. Hours are from 10:00AM to 3:00PM.

June 28<sup>th</sup> will be the SIRS Aviation camp this year. We need to have 3 trainer planes available that day. Also, we need to have some instructors available to help the kids.

**SHOW & TELL:**

Tom Kirk told us about how he has designed a jig for some gremlin planes.

Please contact Tom if you have any interest in obtaining one.

**50/50**

# Carburetor Adjusting 101

by Tim Mills,

Indianapolis Westside RIC Modelers, Johnson County RIC Modelers

Here's a scenario: Pilot takes off, plane's engine sounds great. After several minutes of flying, engine seems to lose power, sounds kinda "thin", pilot keeps flying. Engine continues to sag, now full throttle is very weak, pilot now understands that maybe this isn't gonna clear up. Engine dies (what a shock! ), pilot calls for deadstick landing overshoots, tears off landing gear, etc. Never seen this at your field, right?

Here's the way that **I** set mixture on non-airbleed carb'd engines (90% of the engines out there fit this category, but the theory is similar for air-bleed carbs). First of all, understand that the high speed needle has its main effect from 3/4 to full throttle, and the low speed needle controls everything from idle up to 3/4 throttle. It thus makes sense to me to spend the biggest majority of my tuning time adjusting the needle that controls the largest portion of engine running, right? Also, remember that there is a proper air to fuel ratio (mixture) that allows the engine to run properly. Too much fuel is rich, and too little fuel is lean. We "richen" the mixture by adding more fuel (turning the needle out, or counter-clockwise), and we "lean the mixture out" by decreasing the fuel (turning the needle valve in, or clockwise).

I start the engine give it full throttle, and lean it to it's highest rpm (peak), then richen it by maybe a quarter turn. Then with the glow plug igniter still attached, I slowly close the throttle to an idle rpm. At the lowest rpm that the engine will still reliably run, I then remove the glow igniter. If the engine dies immediately, I know it's too rich, and I then lean out the LOW SPEED NEEDLE by 1/8th of a turn (don't touch the high speed needle). Start the engine again, (and this is important) give FULL throttle briefly to clear out excess fuel, then slowly close the throttle again. Remove the glow igniter, and this time it may run a little longer before it dies, so lean the low speed another 1/8th turn. Re-fire the engine,

give a burst of full throttle to clear it out, and slowly close the throttle again. remove the glow igniter and now notice that the rpm DROPPED a bit when you removed the glow igniter, but the engine kept running. We're getting there. It's still too rich, and you'll prove that by opening up the throttle and hearing the engine "blubber" then die. That's because excess fuel has collected in the crankcase during the rich idle, and when you opened up the throttle, the excess was pulled into the cylinder, making it WAY too rich. Supposed you were on a landing approach, and decided to go around, you throttle up but the engine "blubbers" and then dies (another thing we haven't seen, right?). Yep, the LOW SPEED needle was still too rich, allowing excess fuel to collect in the crankcase, just WAITING on you to try to go around so it could "LOAD UP", blubber, and die!

Keep leaning the low speed needle down until it idles well, but now, when you open up the throttle, it HESITATES instead of BLUBBERS. When this happens, you've lean it down too far, so richen it up 1/16th of a turn and try again. You know you've got the LOW SPEED needle right when you can fire it up, remove the glow igniter, and the rpm doesn't change AT ALL, and you can open the throttle up, and it doesn't blubber or hesitate, it just runs!

The final thing you do is re-adjust the HIGH SPEED NEEDLE, leaning it to it's highest rpm (peak) and then richening it up maybe 1/8th turn to give it a slightly rich mixture. We also know that the fuel mixture will change in flight when you point the nose up (harder for fuel to travel uphill) and also as the fuel level in the tank changes. In both cases, a leaner mixture results, so we actually need to set the mixture a bit further on the rich side to account for this. While the engine is running at full throttle, CAREFULLY pick the model up and raise the nose to at least a 45 degree angle while listen-

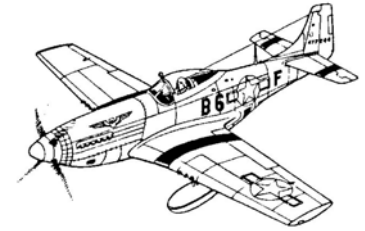
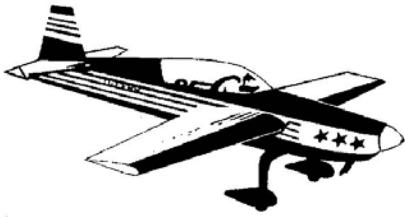
ing to the engine. If the engine sags a bit, then you'll need to richen up the high speed needle 1/16th turn. Try it again, and when you can point the nose up and the engine doesn't sag, but maybe shows a slight GAIN in rpm, you know you've got it right.

Now the engine will be happy, and chances are will reward you with reliable running. If you've got one of the few engines with an air bleed adjustment for low speed adjustment, the theory is the same, just refer to your manual to see how to richen and lean the low speed mixture.



Note from Editor:

This article was published in the SIRS newsletter originally in February 2004. I have found it quite useful over the past two years when setting up my new motors. I thought I would republish it for those that are new to the hobby.



# **SIRS BIG BIRD MIDWEST FLY IN SATURDAY JUNE 10, 2006**

**150x600ft crew cut grass runway with unlimited over fly.  
Primitive camping at the SIRS field. Motor Homes Welcome  
Awning setup and open flying after 2:00pm Friday.**

**Pilot requirement: AMA & IMAA Membership # Current!  
Pilot meeting: 9:30am – No Landing Fee  
Concessions at field ---- 50/50 Raffle**

**Plane Requirements  
80 inches Mono --- 60 inches Bi-Plane  
True 1/4 scale**

**Web Site: [www.sirs-rc.com](http://www.sirs-rc.com)**

## **Directions to SIRS Field:**

**Interstate 55&74 west side of Bloomington  
Exit 160 west on Rt 9 - 3 1/2 Miles to Covell Rd  
4 Miles to SIRS field**

**Contest Director: Mike Wilson  
Ph: 309-662-7455 (evenings)  
Email: [mmpjs.wilson@insightbb.com](mailto:mmpjs.wilson@insightbb.com)**

**Sponsors: SIRS RC Club & Chapter 664**

From the Editor:

I need your help. I've been doing the newsletter for two years now, and am in need of some help filling the voids , look at all the space left on this page. With your help I could fill it up with your stories, ideas, or thoughts. Take a couple of minutes and think of something that has happened to you in the hobby or something you want to share with your fellow club members. Put it into words and send it to me and I'll gladly put it in the newsletter. Remember this is your newsletter and the more you help the better it can be. Send your ideas to

[cogs99@verizon.net](mailto:cogs99@verizon.net) or mail them to me: Andy Cogswell  
302 S. Washington  
Farmer City, Il 61842

Many Thanks,  
Andy Cogswell  
Newsletter Editor



**SIRS**  
**Classifieds**

**FOR SALE**

\*\*\*\* YOUR AD HERE \*\*\*\*

Submit your classified ads to the SIRS Newsletter Editor at:  
[Sirsnewsletter@verizon.net](mailto:Sirsnewsletter@verizon.net)

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# May 2006

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>7</b>	<div style="background-color: yellow; border: 1px solid black; padding: 5px;"> <p>In the coming months....</p> <p>Leukemia Fun fly event • May 20, 21</p> <p>Sirs Big Bird • June 10</p> </div>					<b>13</b> meeting
<b>14</b>						<b>20</b>
<b>21</b>						<b>27</b>
<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>			