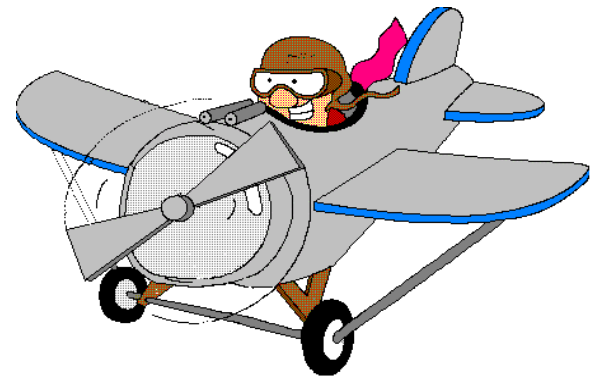


Model-Builders Workshop

Serving Model Aviation Enthusiasts in the Wiregrass
Volume 12, Issue 2 Mar 2010



WGRC CONTACTS

Pres: Pete Veneziano - 820 Tartan Way - Enterprise (334) 347-2550
VP: Mike Coopridger - 126 Palisades Dr. - Enterprise (334) 239-2728
Sec / NL Editor: Jim Kale - 401 Candlewood Dr. - Enterprise - (334) 393-7918
Treasurer: Charles Veneziano - 112 Blake Drive, Ozark - (334) 774-1616
Please contact one of these people to conduct business with the WGRC
WGRC Flies Weekends at Hunt Air Field on Dale Co 18, S of Highway 231 S of Ozark and Brown Stagefield on Coffee County 515 W of New Brocton.

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WGRC ANNUAL DINNER MEETING

It was a hit on January 25, at Ryan's Restaurant at Enterprise. Read all about it in the meeting minutes. Many thanks to Alex Perez for the First Class Magic Show Entertainment after the meeting.

BUDDY BOX TRANSMITTERS -- FOR SALE

The WGRC members decided to sell our BUDDY BOX transmitters. Anyone wanting one please let me know and I can arrange the sale. If we don't sell them locally, we will take them to Perry in March.

POSSIBLE PROBLEMS FOR 2.4 Ghz. Spread Spectrum

Ken Blackwell has studied the new Spread Spectrum radios and offers some insight into what may cause some heretofore unexplained failures. Read about it inside

CLEANING UP GUNKY ENGINES

I was just reading Joe Wagner's **ENGINE SHOP** column in the Feb, 2010 Model Aviation Magazine. He recommends using **DAWN POWER DISOLVER** dishwashing soap to dissolve gunk on your engines when you clean them up. I plan on buying some of this stuff and giving it a try. He recommends using it along with **COMET** cleaner and a stiff brush, like an old tooth brush. He also recommends **EVAPO-RUST**, available from **AUTO ZONE** to take off rust and corrosion. He then recommends **MARVEL MYSTERY OIL** as a gunk preventative oil and after run oil. However do not use MMO or any other petroleum based oil as an after-run oil on any engine that has silicon parts in the fuel system (such as the popular YS engines.) You will sincerely regret this.

www.wiregrassrc.org

COMING EVENTS

WGRC MEETING

Larry's BBQ Daleville
March 1, 2010
Dining at 6 p.m.
Meeting at 7 p.m.
Everybody Come

PERRY, GA SWAP SHOP The Southeast Model Show Will be held on 5 & 6 March

Most of us drive up on Friday morning and stay the night.

WGRC SPRING FUN-FLY

April 3 at HUNT FIELD
Registration at 8, Flying at 9 a.m.

**Southeast Electric
Flight Festival
Hodges Hobbies
22 thru 25 March, 2010**

President's Message

by *Pete Veneziano*

WGRC EXECUTIVE COMMITTEE MEETING: The next meeting will be on March 1, 2010, at Larry's BBQ in Daleville.

Most of us go to eat at 6 p.m. and the meeting will be at 7 p.m. Come out and join us to see what is happening in the WGRC. Members, guests, and RC enthusiasts are welcome.

SPRING FUN FLY: April 3, primary date, April 10 rain date. Hunt field Registration at 8 a.m. Flying at 9 a.m. I hope to see everyone there.

THE SOUTHEASTERN MODEL SHOW: At Perry Georgia on March 5th and 6th. Jim has reserved tables as usual. Drive safe and enjoy.

WGRC ANNUAL DINNER MEETING MINUTES

Acting President Mike Hipwell called the meeting to order at 7.p.m. January 25, at Ryan's Restaurant in Enterprise, AL. , A total of 32 members and guests were in attendance.

Minutes of the March meeting were not read due to the secretary forgetting to bring them, however mention was made they are on the WGRC web site for any who want to read them.

Old Business:

Pete Veneziano had been nominated for President, to fill the vacant office. Since there were no other nominations, a motion was made and seconded that Pete be elected by acclamation. Approved.

Brian Arsenault had turned in his resignation as WGRC Treasurer for personal reasons to the Executive Committee. The bylaws allow the President to appoint a replacement; however, since this is the brand new year, the EC thought it would be better to have nominations and an election at the Annual Dinner Meeting. Charles Veneziano and KC were nominated. Ballots were passed out and Charles Veneziano was elected. Incoming WGRC Officers take office at the close of the meeting IAW WGRC bylaws.

Mike Coopriider had already been elected as the new incoming VP.

KC had requested that we publish some updated flying guidelines so that when a turbine power airplane is in the air that other airplanes will be on the ground due to the high speed characteristics of the turbine and the increased possibilities of an airborne collision. Jim Kale realized that this was a good suggestion and some other changes were also needed for the flying guidelines. An updated version was circulated and some questions were raised. Since guests were in attendance, Acting President Mike Hipwell tabled the discussion to the next meeting so the guests would not be subjected to a long discussion.

Mike mentioned that the WGRC supported the Alabama School Aviation/Space program at Landmark park.

New Business:

Mike mentioned that the WG RC normally hosted 3 Fun-Flies and a Fly-In each year and asked if the club wanted to continue this. The result was very positive and we selected April 3, as the primary date and April 10, as the rain date for the spring Fun-Fly with the normal budget for expenses. Charles Veneziano volunteered to be the CD.

Mike mentioned the EC decision to sell the clubs buddy boxes and advised anyone interested to see Jim Kale. If they are not sold we will take them to Perry, GA, to sell at the swap meet.

Mike announced the decision made at the November meeting to go to all electronic newsletter distribution. Everyone has a computer or has a friend who does so everyone should be able to read them. They will be sent to all who give me their email addresses; I already have many of them. The NL is also posted on the WGRC web site at www.wiregrassrc.org .

Mike announced that Jim Kale had some LASER cut WGRC hat pins for sale at 6 bucks each. However, the latest order did not arrive in time so they will be available by the end of the week.

Mike thanked Charles Veneziano for fixing the loose roof on the Hunt storage shed.

Mike brought up a proposal to change the bylaws from the EC voting on all club issues to meeting attendees voting on club business. The motion was made, seconded and approved by the membership. Jim Kale will make needed changes to the bylaws.

Charlie Dicey announced that the Alabama Aerospace/Aviation Day would be on February 25 and 26 this year. The WGRC will be asking for flying volunteers to support this.

Charlie Dicey made a motion to confer emeritus status for Brian Arsenault in honor of his 24 years of Treasurer service to the WGRC. Motion seconded and approved.

Door prizes were awarded.

Meeting was adjourned at 8 p.m.

WGRC member Alex Perez put on a professionally done MAGIC SHOW for our entertainment. Thanks Alex.

PHIL'S PHOLIES

This column was initiated with the idea of adding some humor to the newsletter. Phil seems to be the humor extraordinaire around the WGRC so the column was named to commemorate his talent. Apparently last month I inadvertently explained an intended humor point with words that gave the impression that Phil had come out on the short end of an airplane swap with Bob. That was strictly unintentional. Phil mentioned to me that Bob had gone to great length to correct any problems with the airplane. I am sorry and will watch the wording in future columns more closely. Just remember, **this column is just for fun.**

I was writing real good stories about Phil's goofs, and then I went to test out my (recently converted to electric power) Sig Kadet. I got some larger lithium battery packs and wanted get some flights in. I wondered why the airplane had a very loud whine when I took off and seemed to have less power than with the smaller battery packs. Looked like it was flying thru Jello. Finally I figured it out at about 200 feet (I had put the propeller on backwards.) I quickly landed and fixed the problem. Phil's laughter echoed for at least a mile.

A couple of weeks ago, Phil found out one disadvantage to high speed, high angle of attack takeoffs. If the engine quits and an unexpected gust of wind comes along and pushes the nose even higher, the airplane comes down vertically on the concrete on its nose. And like an old proverb says "IT IS NOT THE FALL THAT HURTS, IT IS THE SUDDEN STOP. Of course phil's Ultra Stick has seen punishment before and if Phil's FIX-IT skills are up to the repair, it will fly again.

Phil has found out twice in the last year that airplanes fly much better if both ailerons are working. First his new electric powered glider had an aileron plug that liked to come loose during the flight. Phil had wondered why the ailerons were unresponsive. When the problem was fixed the glider flew much better. Then Phil's new GeeBee Y had one of the aileron linkages come off on its second flight. Phil had a hard landing because he was having control problems at low airspeeds on final approach. This is one of those rare problems. The aileron clevis had a spring wire keeper on it, but when the servo arm turned far enough it pushed the spring back and allowed the clevis to snap off of the servo arm. Well, we can all be glad that we have Phil to check out all of these rare happenings and report back to the rest of us so we can avoid these problems

Problems with the 2.4 Ghz Radios

Ken Blackwell read the report of the 2 airplanes that crashed with 2.4 spread spectrum radio's at the Nov Fly-In. Based on his experience and what he has read, he believes many of the problems related to 2.4 GHz radios are battery related. Ken is using 4 cell Nickel Metal Hydride (NiMh) batteries - 2,000 mah. He is planning on going to the 5 cell 2,000 mah pack. **You must INITIALLY slow charge them at about the 1 C rating for 17 hours to apply a "FORMING CHARGE". If you fast charge them the first time, you won't get a complete charge and you may CRASH.** Of course one can go the Lithium battery packs with a voltage regulator to power the receiver/servos. However that is one more piece of equipment that could fail, and the lithium battery pack and charger is another cost for you. A good high quality Voltage regulator, Lithium battery pack, and charger could run between 100 and 200 dollars.

RC Flying these days for larger aircraft often includes 3D flying, or hotdog flying that involves lots of jerking the control sticks around. This causes large, fast, servo movements putting lots of control loading on the servos. The larger the airplane, the larger the load and the more current required. The high servo loading – especially if more than one servo is loaded at one time (multiple servos for elevator and ailerons, etc) causes high current spikes on the battery. Digital servos get very current hungry with high loading and make the current spikes even higher. The older Nickel Cadmium (Nicad) battery packs had very low internal resistance and could handle high current spikes better than the newer and more popular NiMi batteries. NiMi packs have much higher energy storage than Nicad, but they also have higher internal resistance and cannot supply very high current spikes without the voltage dipping significantly. Then we add in a new 2.4 spread spectrum (SS) receivers with computer circuits that will go into (low voltage lock-out) at somewhere between 3.5 and 4 volts. The older analog receivers did not have this problem. I looked at paper work that came with my newest JR equipment and it warned about this problem

You can see we have a problem in the making: Large airplanes, high servo loads, digital servos, and NiMi battery packs, and computer circuit radios. These all add up to a probable low voltage situation, even for just a few micro-seconds, and a high probability for a crash. The voltage will recover when the loading is reduced, however, when the voltage comes back up, the computer circuit receiver must re-boot, much like your desk top computer and it takes a few seconds. Your model can crash in that few seconds.

I will test my 2.4 SS receivers to see just where they go into low voltage lock-out. I don't do 3D flying and my airplanes don't have large digital servos, however, I may go to 5 cell battery packs if I am nervous about the results of my tests.

Going to 5 cell battery packs means that you **may need a different charger than your radio came with**. Some radios come with chargers that will charge 4 or 5 cell packs, some won't. So a test of your charger will be required if you do this. The best way to do this is to charge and then cycle with a cycle tester to see how much charge the batteries really got. A couple of years ago I wrote an article for the newsletter recommending against going to 5 cell battery packs. However, that was before the newer NiMi batteries and SS radios came along. I now feel 5 cell packs are the way to go if you have this equipment and do hotdog or 3D flying with digital servos.

There is one other option I can think of for avoiding low voltage lock-out. That is using one battery pack for the receiver and another battery pack for the servos. However, this involves knowing how to wire up the connections. Do not try this unless you really know what you are doing and you evaluate the risks involved.

To use this new (and probably) more reliable 2.4 Ghz technology requires buying some new equipment and learning new techniques. It also may involve discarding some of the old equipment that has served you well. Ole Billy Pearce was right. You make your choices, you pay your money, and you take your chances. Most of the story on this new spread spectrum equipment is known, however, a few details and techniques probably remain to be discovered. If you fly large airplanes with spread-spectrum radios using NiMi battery packs, you should seriously consider some voltage insurance.

DON'T FORGET TO GET YOUR SUPPLIES AT **HODGES HOBBIES**. PRICES ARE COMPETITIVE WITH THE ONLINE SOURCES AND YOU GET IT QUICK WHEN YOU CALL at **866 924-9505**. Shipping is normally within 2 days.

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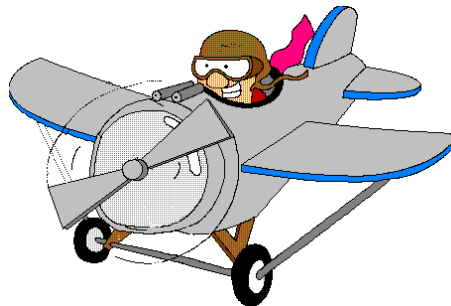
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