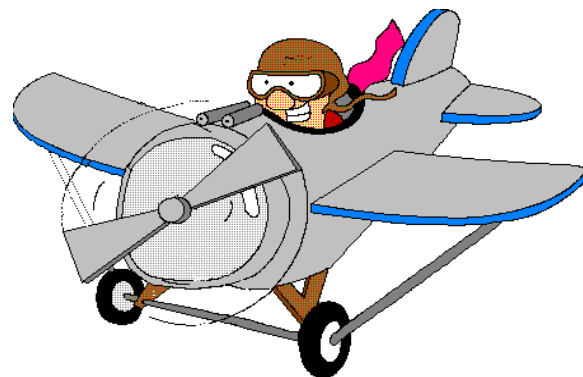


Model-Builders Workshop

Serving Model Aviation Enthusiasts in the Wiregrass
Volume 12, Issue 3
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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 Brockton.

WGRC SPONSOR

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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.

WGRC event dates for 2010

May 10, EC Meeting Larry's BBQ
Jun 19, Summer Fun-Fly...June 26, rain date
July 12, EC Meeting...July 5, is holiday weekend
Sep 11, Fall Fun-Fly...Sep 18 rain date
Sep 13, EC Meeting...Sep 6 is holiday weekend
Nov 1, EC Meeting
Nov 6, WGRC Fly-In

Southeast Model Show, Perry GA.

Great show and well attended. All of the 1,000 tables were sold out. The WGRC was well represented with 14 tables. Phil is still wishing he had lowered the price a little more on the models he did not sell, and he is still wishing he had haggled a little harder on the ones he bought. I have noticed in these economic times that less money is changing hands at Perry. Charlie Dicey was selling quite a bit as was Dave Fulford. I really marked the prices down on my old new-in-box stuff that I took and I sold most of it

The April Fun Fly.

The weather was about as good as you could ask for. I believe we had about 8 flyers. Alan Bourland took first, followed closely by Mike Coopriider, with Charlie Dicey coming in third. Phil set a new record, see the write-up in Phil's Pholies.

www.wiregrassrc.org

COMING EVENTS

WGRC MEETING
Larry's BBQ Daleville
May 3, 2010
Dining at 6 p.m.
Meeting at 7 p.m.
Everybody Come

WGRC SUMMER-FLY
June 19 at HUNT FIELD
Registration at 7, Flying at 8 a.m.

President's Message

by *Pete Veneziano*

WGRC EXECUTIVE COMMITTEE MEETING: The next meeting will be on May 10, 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.

SUMMER FUN FLY: June 19 with June 26 10 as the rain date.

WGRC MARCH MEETING MINUTES

President Pete Veneziano called the meeting to order at 7.p.m. March 1, at Larry's BBQ in Daleville, AL. Several members and guests were in attendance.

Minutes of the January Dinner Meeting were read and approved....after the secretary finally arrived. Treasurer's report was read and approved.

Old Business:

Pete addressed the issue of the revised flying guidelines that had been tabled from the January Dinner Meeting.

KC suggested that we simplify the wording to read that any aircraft that weighed more than 55 lbs. only be allowed to fly if it had an air worthiness certificate issued by the AMA. He also recommended wording to indicate that turbine powered aircraft only be operated IAW AMA rules that require a waiver from the AMA for operation by the specified pilot. This was discussed and the membership voted to simplify the wording to indicate that **CURRENT** AMA rules must be complied with to operate turbine powered aircraft or any aircraft operating at more than 55 lb. gross weight.

A discussion at a previous meeting that missed getting into the January minutes involved requiring that the CD of all WGRC Fun-Flies to buy prizes from Hodges Hobbies was discussed. The current Fun-Fly guidelines give the CD authority to get the prizes for the Fun-Flies. The membership voted to change the guidelines to recommend that the CD support Hodges Hobbies to the maximum extent possible, however, it is not mandatory that all prizes be purchased from Hodges Hobbies.

Phil brought up a topic that had been discussed at a previous meeting of buying a portable shade device to be kept at Hunt Field for the WGRC. Phil recommended a 250 dollar max price and he will do the shopping. The membership approved this. Phil will report back to the EC when he is ready to make his recommendation for purchase.

Al Bourland mentioned that the Alabama Air Space week demos were conducted at Landmark Park.

Jim Kale reviewed the tables at Perry Georgia for the swap shop.

Athol Foster reminded the members of the WGRC web site at www.wiregrassrc.org

New Business:

Pete brought up the subject of WGRC events for 2010. A discussion ensued and the dates selected are: April 3, April 10, rain date, June 19, June 26, rain date, September 11, September 18, rain date for Fun-Fly's and November 6, for the WGRC Fly-In.

Meeting was adjourned at 7:45 p.m.

The new flying guidelines are at the end of this NL'

PHIL'S PHOLIES

Caution: Anything you read in this column is here just for fun

Phil is working hard to keep himself the topic of conversation at the WGRC flying sites. At the April 3 Fun-Fly, he managed to break his landing gear off of his Ultra Stick on 3 occasions. He did not have any spare nylon bolts, and Alan saw a real chance to clean up on his overstock of Nylon bolts. I believe he priced them to Phil at about 5 bucks each. I heard comments from some of the flyers that since we only allow one restart for each event that we should now only allow one landing gear repair for each event.

Mike Coopridner brought his profile 3D model to use for competition and forgot to take the control switches out of the super high rate position. He crashed on the first event and broke the fuselage in half from over controlling. This did not slow Mike down at all. He simply borrowed some high speed glue, glued the fuselage back together, used some assorted junk he collected to reinforce it and taped the whole mess together with clear tape. He was ready to go in time for the next event. This gives new meaning to the expression **FIELD REPAIR**. I believe I heard him calling out to Phil **"TRY TO TOP THAT PHIL"**. He was able to fly the hastily repaired bird to second place. When he took off after the repair, some of the contestants had side bets with each other on whether the repair would hold up. I now believe it may be permanent as the model seemed to fly much better after the field repair.

At Perry, as usual, Phil provided some interesting observations at the Perry Model Show. Phil is a wheeler-dealer who has some interesting techniques. He bought 3 models that were real steal's and resold one of them at a profit on his table. However even his best sales pitch's failed to net him much in the way of selling his models he had brought to sell. I had to take a couple of them home with me because his trailer was running over.

Problems with the 2.4 Ghz Radios

In the last WGRC NL, I was explaining about the problems that may be encountered with hot-dog flying, large digital servos, NiMh battery packs, and spread spectrum 2.4 radios. The high current spikes that can be developed with this equipment can cause low voltage lock-out for the computer receivers. Then the receiver must reboot when the voltage comes back above 3.5 volts. This reboot takes a few seconds and your airplane is out of control during this few seconds. Some discussions I had with other modelers at the Perry, GA, swap shop seemed to confirm that other modelers were coming to the same conclusion.

Even though I won't be doing any hot-dog flying with my new, very large, J-3 model, it does have some large servos and I have decided to go to 5 cell battery packs for it. I will also be using 2 battery packs with a BAT/SHARE circuit for redundant power supplies.

I called Pete and asked for his opinion and he told me about SMART FLY battery share circuits. Their circuit is somewhat like one I had read about many years ago. What the circuit does is put both batteries in parallel and force the highest voltage battery to provide most of the current. If that battery goes to lower voltage, the circuit then forces the other battery to provide most of the current. There is no switch over so there will be no instantaneous switching off and on of the batteries. Also, the circuit is fairly reasonably priced at about 25 dollars and is available from Hodges Hobbies. One drawback to the circuit is that it lowers the battery pack output voltage about 6/10 of a volt. So, 5 cell battery packs must be used to keep the voltage high enough to avoid low voltage lock-out. Then when you use 5 cell battery packs, you must use a charger that will charge them properly.

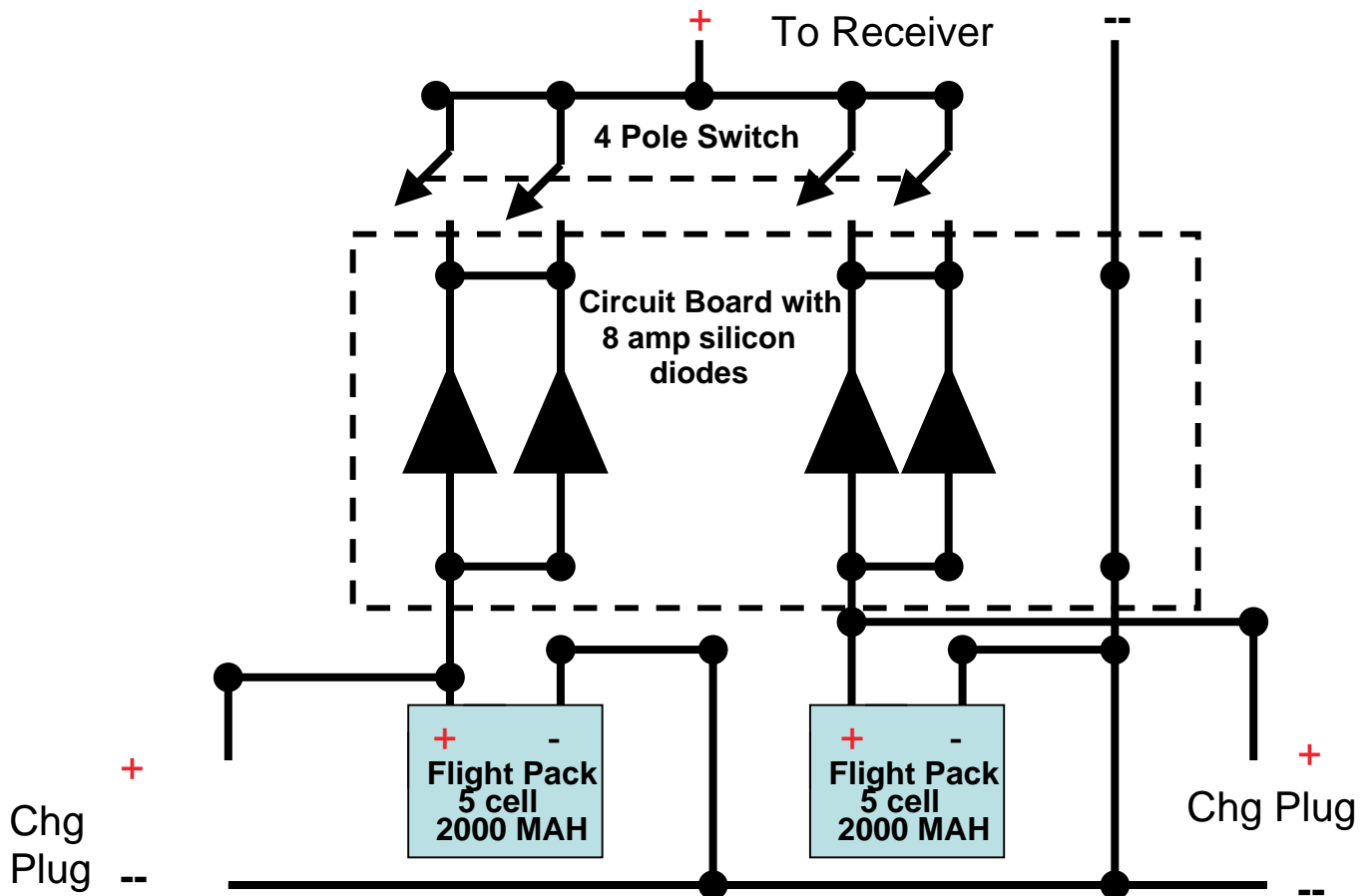
But then my electronics training started kicking in. I began looking for that circuit I read about many years ago and found it. I believe I know what the SMART FLY circuit consists of and why it is so low cost. I decided to test my theory again on the bench and I believe I was right. The circuit simply adds a high current diode to the output of each battery. When the switch is turned on, the diode protected batteries are connected in parallel to power the flight pack. The diodes also add some resistance to the circuit so the batteries tend to keep their voltage balanced while in use. That means the highest voltage battery provides more current to the flight pack. In case either battery shorts out and fails, the diode prevents the other battery from seeing the short circuit so the other battery continues to power the flight pack. The .6 volt loss across the circuit is due to the silicon diode being forward biased. It is just a characteristic of silicon diodes. So now I will not buy the SMART FLY circuit but will build my own for about 4 dollars. In case any of you guys have an inquiring mind and want to know what it looks like, I am putting a circuit diagram in this NL.

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.

**WGRC members use MORGAN's COOL POWER fuel
And buy their Modeling Supplies at HODGES HOBBIES
Andersonville, Georgia**

THE BATTERY SHARE DEVICE

This circuit uses 2 each 5 cell battery packs and connects them (thru forward biased diodes) in parallel. This circuit caused the highest voltage battery to provide more current to the flight pack and helps keep the batteries balanced. In case either battery shorts out and fails, the diode prevents the good battery from shorting thru the bad one. The good battery continues powering the flight pack. Heavy duty 8 amp silicon diodes are used in tandem for redundancy in case one diode should fail. A 4 pole switch is also used for redundancy. The diodes decrease the voltage from the 5 cell packs by .6 volts from 6 volts down to 5.4 volts which in my view is better for the receiver anyway. I normally don't like adding complex circuits to my airplane, but this circuit is not really complex and there is redundancy in every part of it.



WIREGRASS RADIO CONTROL CLUB FLYING FIELD GUIDELINES

March 1, 2010

1. **NO MODEL FLYING IS ALLOWED IF FULL SIZE AIRCRAFT ARE OPERATING OR PARKED ANYWHERE ON THE FIELD.** This rule dictated by Ft. Rucker regulation 95-2.
2. You should perform a preflight check of your aircraft prior to each flying session. Mufflers of some type should be used on all 2-stroke engines over .09 CID. (1.5 CC) Open exhausts may damage hearing.
3. When starting and running your engine, it is your responsibility to clear the immediate area to each side and in front of your propeller to minimize the chance of a broken propeller striking someone. Engine run-ups should be run at least 10 feet in front of the model pit area. **Always be cognizant of your prop wash and it's effect on other models and personnel on the flight line.** If engine work and subsequent run-ups are required, make these well away from the pit area. Major engine work and long run-ups, or engine break-in should not be performed at the flying site.
4. Any time more than three flyers are present; **FREQUENCY CONTROL** should be used.
5. **All pilots are responsible for using frequency control prior to turning on their transmitters. Any pilot who causes damage to another model by not observing this rule will be financially responsible for damages to the other model. Frequency pins (Except 2.4 Ghz.) should be returned after 20 minutes to allow other members to fly.** Guest flyers use the WGRC guest flyer pin.
6. **Model aircraft that weigh over 55 lbs, or are powered by turbine engines must be flown in accordance with all current AMA regulations applying to these models. A fire extinguisher should be available for turbine engine operation. Very Fast, Very Slow, Non RC Aircraft, Flight Instruction, or aircraft making maintenance test flights,** may need special attention to be flown safely with more typical type RC aircraft. If a pilot wants to fly a turbine powered aircraft, non RC aircraft, non flying RC device, or any extremely fast or very slow type aircraft the pilot should coordinate with other pilots to have exclusive use of the flying airspace, **OR** coordinate with other pilots to exclusively use the opposite side of the parking area for separation. Please do not request excessive time when no one else can fly. Dividing the field on each side of the parking area may be used for flying very different types of aircraft. Flying will normally be up and down the runway, however, when the wind is unfavorable for that, and pilots agree, the direction may be moved to anything that is agreeable. If making low, high speed passes, plan on keeping the model over or beyond the runway centerline. **All aircraft should not be flown at low altitudes (below 500 feet) over the tower, classrooms, Fire Station, Pit Area. All takeoffs and landings must be in a direction not pointed at the pit area or parking area. If the wind changes and takeoff direction needs reversed, all pilots flying should be notified that the takeoff and landing direction is being changed.**
7. Each pilot for RC aircraft is requested to stand so that there is about 20 feet between operational transmitters. Runway markers or plastic cones may be used as visual pilot separators
8. **In accordance with AMA rules, spectators not involved with flight operations must stay behind the area where any aircraft are flying.** Pre-painted lines or concrete expansion joints may be designated, briefed and used for this purpose if a visual reference is needed.
9. A maximum of 5 flyers should be in the air at one time on each side of the parking area. Proper use of FREQUENCY CONTROL for all frequencies except 2.4 Ghz. is paramount for safety.
10. All pilots must observe air traffic priority. 1. Any non-powered aircraft or aircraft with a dead engine, 2. Powered airplanes, 3. Helicopters. The pilot of any aircraft that has had an engine failure is responsible for loudly announcing **"ENGINE FAILURE"** or **"DEAD STICK"** to establish traffic priority.
11. **SPECTATORS:** Any club member who notices visiting spectators should insure that they are aware of flight line operations and safety procedure
12. **VISITING PILOTS MUST BE AMA MEMBERS OR SPONSORED GUEST IAW CURRENT BYLAWS, TO USE THIS FIELD.** Pilots planning on flying for more than three (3) weekends should see a club member about temporary membership in the club. **EVERY CLUB MEMBER IS CONSIDERED A SAFETY OFFICER AND SHOULD MAKE REASONABLE REQUEST TO OTHER MEMBERS TO COMPLY WITH THESE GUIDELINES. Any damage to the flying site must be reported to a club officer as soon as possible.**

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