



KNOX COUNTY RADIO CONTROL

## Newsletter

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## THIS'N THAT

► Trouble in fairy land! Our website is down! Jeff is on vacation but promises to look into it when he returns. Problem with digital domain items; they sometimes lose their will to live and go boom..For that reason, I guess we'll email this issue to you instead of letting you down load it from the website. This brings up another point. All the newsletters from the last 15 years are available to you. If we get the website back up, you can get it there, or from me or Jeff if we don't..

► The AMA sent out a notice that the FAA final ruling is done. Apparently, we members of AMA are safe. Modelers who belong to the AMA and obey the safety and flying rules from that organization can continue as they have in the past. Do they have to register with the FAA; yes. Do they have to display their FAA registration number on their models; yes. Do they have to display their AMA number on their model; yes, as usual.. Otherwise, it's business as usual. Also good news for SAM guys, the 400 ft altitude rule doesn't apply if you're a AMA member and obeying the safety rules...

► Saw Dave Gee's safety column in the latest AMA magazine. He was wondering how kids could possibly build or fly safely without help. I remember when I started, I knew nothing about building a model. I built two sides and a top and a bottom for the fuselage and put it together. I finished the model and, although it looked only a little like the picture on the box, I was proud of it. Proud enough to start another. I was halfway through this one when I realized I didn't need to build a top and bottom. I just needed the sticks to put the two sides together.

I don't know if I would have gotten more out of it if I'd had a mentor. .When I tried to push my son into modeling years later, I think my "help" may have turned him off because he never has shown any interest in modeling.

Dave talked about help keeping a newcomer safe from things like prop cuts but I don't think anything can prevent those. We all got them. I think that's a big part of the learning process.

► I was curious about beginner events in SAM competition and asked L.A. Johnston about the Speed 400 event. This is what he said;

"Jim,,,...,As for the Speed 400 question, yes, the rules for that event limit you to the Speed 400 brushed motor designed for 6 volt power (that's the higher rpm version). The battery power can be any capacity 2 cell lipo battery (most fliers use 850 to 1000 mah packs because of the size and weight) and the model can be any SAM approved "fuel powered" design. The airplane must weigh at least 16 oz ready to fly!! No minimum wing loading requirement. The rules give you a 3 min run time, and a 15 min max flight time.

In trying to set up an electric version of ½ A Texaco, the big problem with the rules as they stand right now is a 3 min motor run. This time puts the airplane out of sight, so, what a lot of the contest directors have started doing is modifying the flight rules for their contests. Last year at our local SAM contest, we used a 90 sec motor run, and a 10 min max for flight time. That worked good and the airplanes didn't get so high that they got out of sight, and no one maxed. Average flight time was about 7 ½ min.

This year at the SAM champs, they are going to use a 2 min run time, and a 10 min max. I suspect with that much run time, there will be several people who will max out, so they will have to have a fly off.

Now, since the "Speed" 400 motors are no longer available, they have had to get replacement motors (because the event is very popular) In the rules on the SAM web site, they list a couple of motors that are approved replacements for the Speed 400 , 6 volt motor.

It is getting to be difficult to find speed controls for brushed motors, so many of the fliers are using radio equipment that will work with a 7.4 volt power source. That allows them to just use an rc switch to control the power to the motor!! Since the Speed 400 motors won't take more than 10 amps for any length of time (the brushes won't take it), there are still brushed type speed controls in the 10 – 18 amp range available but you have to look for them. I would suggest Maxx Products may have some of them, since they have one of the approved motors .

The Speed 400 event was supposed to be a "beginners" type event, (like Foxacoy) but competition always drives development of competition type fliers, so now it is still a good beginners event ( because the

airplanes are inexpensive to build and fly ) but the competition gets fierce very quickly. There is still a luck factor involved, but the cream always rises to the top.

There are 3 guys here in the Nashville area that have made the Speed 400 "their" event, and they fly their Speed 400 airplanes just about every time they come to the field. They are getting to be very good at the event.

That is what it takes to make the event interesting, and fun to fly. Now, those guys are all building new airplanes to take advantage of the new rules allowing airplanes designed up to 1951 to be flown in competition. So far, the Fubar seems to be the design of choice, but I think that is because there are several kit manufacturers making kits of that airplane in a size that is good for several events. Most Speed 400 airplanes run in the 288 – 350 square inch wing size, and that is about the same size as 1/2 A Texaco airplanes, so all you really need to do is look for a good 1/2 A Texaco kit and you will be right in there.....L.A "

► Incidentally. In the last issue I included a short piece by L.A. About " declinage ". Turns out ( thanks to Doc Shackletts information ), the word was both mispronounced and misspelled. The correct word is "decalage". L.A.'s information defining it is correct. A large technical article is included in the June, 2016 SAM chapter 21 ( "The Clipper " ) newsletter.

► I talked in the last issue about the ongoing construction of my latest, the Lanzo Bomber; I thought you might be interested in seeing the results. My latest building effort is a 790 sq in version of a rc controlled free flight model.



The specs are; weight ready to fly minus battery is ~39 ounces, 790 sq in wing area, powered by a Hobby King 3632-1500 outrunner, 10-6 prop and a 30 amp

ESC.. Plan to use a 3 cell 1200mhr LiPo battery. Control is by two Hitec standard size servos. The cheapest that HobbyTown had..Covering is Hobby King film. I really like that film. I paid about \$10 for a 5 meter roll and it goes on good. I'm worried a bit about the CG. Its way back on the wing, about 70% of the chord...

Not too proud of my finish work on it. I seem to get more clumsy and more careless as I age instead of getting better like some guys I know. Still, I think it'll fly since Doc Shacklett says you can't keep a Bomber on the ground..

► There's been some horror stories recently about Lipo fires. L.A. Johnston forwarded me an email from a friend who had one catch fire while charging ( at 1 amp according to the email ) and another sent to me from Phil Spelt about one that caught fire while just lying in storage, It had been charged earlier for flying later on but had been cool to the touch when put into the flight box and burst into flames after several hours. These are just a few examples illustrating the problems associated with the use of these wonderful batteries. The high power density comes with a price. Phil Spelt is planning an article describing the proper care and feeding of these batteries.. In the meantime, L.A. Johnston spent many years in Hobby Lobby selling the chargers and batteries and I asked him for recommendations.. Here's what he said;

“ I am going to tell you two things I have learned about lipo batteries that I don't recall being in any of the articles I have read. First, most of us older modelers grew up using nicad batteries, and as you know, they are pretty much bullet proof. The few safety problems you had with them didn't bother us, but the power density of the Lipo batteries is so much higher that if you don't watch your P's, and Q's you can get into serious trouble.

The type of Lipo charger you use makes a hell of a lot of difference. Each charge system has its advantages, and disadvantages, but the only two items in the charge circuit while you are charging is the battery, and the charger, so you need to really understand how to use them together.

I use different chargers for lipo packs, and nicad packs. Keeps you from making stupid mistakes like trying to charge nicads at a lipo rate, and even worse the other way around. Some Lipo chargers sense the number of cells in the pack, and set the cut off voltage based on what they think the number of cells in the battery is. With the other type you tell the charger how many cells there are in the pack you are charging. The automatic type is nice, and easy to use, but they can make mistakes in their sensing program. The other type requires you to think when you put the pack on charge, and some people get in too much of a

hurry, and don't check to make sure they have programmed the proper number of cells for the pack they are using.

The first thing I learned was, unlike nicad batteries, **don't top off the charge on a lipo battery!** Particularly if you use the automatic type of charger. Occasionally that type of charger will look at the starting voltage of a pack and think it is a pack of a higher cell count that is really well depleted when it is actually a lower cell count pack that is almost fully charged. When that happens, it tries to charge the low cell count pack to the cut off voltage of the higher cell count pack, and that causes the "silver sausage/fire syndrome".

The other type of charger relies on the programmer (you) to set things up properly, and we all know that programmers don't always do things right, so choose your charger wisely, and don't get lazy when you use it.

The early type Lipo packs had no "balance" connectors, and I have several of those type that I am still using, but just like me, they ain't what they used to be!!! When they first started supplying packs with balance connectors you used an external balancer with the charger. Many of the chargers would not allow you to balance the pack at the same time you were charging it, so it greatly extended your charge time. Because of that, people got in the habit of only balancing the pack after a number of charges. That worked most of the time, but was not nearly as good as being able to balance the pack every time you charged it. Now most chargers have a "balance/charge" cycle in their programming options. It is a good idea to use it "every time" if you have the time. As best I can tell, it will extend the life of your pack, particularly the less expensive packs that are not pushed as hard as the ones you use for competition or showing off. The other thing I learned early on was check not only the voltage of the whole pack, but the voltage on each cell! Remember, its over charging a cell that causes it to gas, and the gas is hydrogen, which is highly combustible . Some chargers look at the voltage in each cell during the charge process (particularly if it is in the charge/balance program), but some only look at the voltage of the whole pack and if you have one or more cells in the pack that are discharged more than the others, that can cause the charger to over charge the cells that are at the higher voltage to begin with. So in short,

- 1.. keep the cells in your packs balanced as closely as possible,
- 2..Don't top off the charge in a lipo pack,

**3...Buy the best charger you can afford, and learn how to use it, and last of all, check, check, check check ...L.A "**

► I wish I could recommend a storage container to keep these batteries in but I can't.. Seems like a lot of people are using metal ammo boxes. Maybe the ceramic or clay flower pots would work. I have an idea that sand in the bottom of a clay pot would be good. Anybody out there want to make a recommendation???? ...■

### **KCRC Meeting Minutes July 12, 2016**

President Ralph Holder called the meeting to order at 7:00 pm at the KCRC flying site. There were 25 members in attendance, including 2 new members and 1 prospective member, who were recognized.

Bill Combs and Tristan Alexander are new members, and Louis Crisbow is a prospective member. Welcome to all!

Ralph Holder thanked several people for their service to the club, including Jim Scarbrough for his work on the newsletter, Mike Catlin for his work on the KCRC Facebook page, Jeff Prosize for his work on the KCRC website, Randy Philipps, Jerel Zarestky, & Charles Wilson for their work on the ice cream social event, and John Basalone & John Partridge for their continuing work maintaining the field through grass mowing and weed-eating.

Joel Hebert requested that someone remove the dead skunk at the KCRC entrance and it was done by the time the secretary left the field that evening! Ralph Holder asked for approval or corrections to the May meeting minutes, which were approved by unanimous voice vote.

Joel Hebert gave the treasurer's report which was approved by unanimous voice vote.

Safety officer Rick Thompson had nothing to report.

Secretary Ed Dumas had nothing to report.

**The float fly is scheduled for July 30 at the East Boat Dock in Melton Lake Park, adjacent to KCRC. This event will be open to the public.** Notices have been sent to all area clubs and Phil Spelt reported that several people from the Harriman club plan to be there.

Field Coordinator John Basalone had nothing to report.

The KCRC website is down as of July 12, 2016. Randy Philipps talked to Jeff Prosize and found out that the Internet Service Provider (ISP) is overseas and recovery will be a challenge. Jeff is working on recovering the site. It isn't known at this time if any data will be lost, but it is a possibility.

Bill Dodge followed up with the SPA from the last meeting and found out that the SPA doesn't have a problem with letting people who aren't SPA members or do not have SPA legal airplanes fly in the SPA contest and be judged. They aren't eligible for contest



points or overall SPA points at the end of the season. It was noted that this is different from the Novice class where an SPA membership is required. Bill reported on the Cullman, AL SPA contest where he won 2nd place and David Johnson flew and crashed a Daddy Rabbit.

### **New Business:**

Joel Hebert was nominated for an Emeritus Membership, which was approved by unanimous voice vote.

### **Model of the Month:**

Jimmy Russel won with a Joe Bridi Krafty 25 from a Blue Jay kit. He built it last fall and winter. It is powered by an old/new K&B .28 sport engine and covered with a combination of Ultracoat and Monokote.

### **Crash of the Month:**

Alan Valeo won crash of the month with a ducted-fan Panther.

Frank Allemand described flying a student's Apprentice into a tree that could have been due to radio failure, but he didn't compete for Crash of the Month. He noted that his receiver didn't have a satellite antenna and Frank is replacing all of his receivers with satellite-equipped receivers.

During the discussion for the Crash of the Month, Steve Jones asked if a satellite is disconnected after being bound to a receiver will it still function. The consensus was yes, but this would be an undesirable situation.

Rick Thompson commented that a DSM2 satellite should not be used with a DSMX receiver, or viceversa.

The satellite type must match the receiver type in order to have the satellite work properly. Also, Rick recommended that a diversity receiver be used to achieve the best performance.

**The meeting was adjourned at 7:45 pm.**

**Respectfully submitted, Ed Dumas, KCRC**

**Secretary....**

## **KCRC Treasurer, Joel Hebert**

**KCRC Emeritus member**



On July 12<sup>th</sup>, 2016, Joel was honored by KCRC

for the many years he has invested doing the arduous duty of taking very good care of the financial needs of KCRC. He was awarded Emeritus status by unanimous vote at the meeting. Nominated by President Ralph Holder, Joel received this well deserved honor after serving continuously as club treasurer since being elected in 2002.

No one has ever served so many years being elected to any office in KCRC....

► Secretary Ed Dumas sent a picture of Jimmy Russell's MOM winning model.



► In the minutes, Frank Allemand said that a crash he experienced may have been radio failure. I sure hope that it wasn't! My opinion is that radios are so good nowadays that radio failure should be a thing of the past.

Since the FCC frequency changes in 1990, the radios kept getting better and better. Judging from the way some people fly, they think so too. It's scary watching show flyers hover the really big models close to crowds.,

The industry has to keep coming up with new things to sell in order to stay in business. New names for old processes, new processes, new packaging.. It becomes a PR race to keep the money coming in.

Problem is, the more complicated it becomes, the more connections to be made the more mistakes occur., you could get crashes even with expensive equipment. Simple is good for me because I'm pretty simple minded, and I still trust my old equipment ( if I was doing any flying. )...

**Point of this drivel is that you need to be sure to do the installing and using the radio equipment correctly and it won't fail you. Even the old stuff is pretty good.....Jim**