



KNOX COUNTY RADIO CONTROL

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The meeting for September will be on Tuesday, September 13th, 2005, at KCRC Field at 7:00 PM.

Watts Up

By Scott Anderson

Well, we covered the different motors and how many watts does it take to fly a model, now lets look at the battery end of the system next. The Lipo battery has moved electric flight into the next stage mostly due to its size and amount of current it can deliver, which brings use to all those C ratings you hear everyone talking about.

Think of electricity like water. Volts = pressure and Amps = flow.

Volts is like pounds per square inch, psi. Says nothing about how much water is flowing, just how hard it is being pushed. You can have 100 psi with zero water flow.

Amps is flow, Like gallons per hour. You can have flow at low pressure and you can have flow at high pressure.

Amp hours is how much flow can be sustained for how long. It is used as a way of measuring how much electricity is in the battery. Like how many gallons of gas in your tank. It is a capacity number. Says nothing about flow or pressure. It is capacity.

Amps and mili amps? We are just moving the decimal point around.

1 amp (short for ampere) - 1000 milliamps (mili means 1/1000)

Examples

The motor will draw electricity from the pack at a certain flow rate, or amps.

If you have a have a 650 mili amp hour pack, it can deliver a flow of .650 amps (650 milliamps) for one hour. If you draw it out faster, it does not last as long. Therefore, your motor might pull 6.5 amps for 1/10 of an hour, or about 6 minutes.

An 1100 mah pack has double the capacity of the 650-mah pack, so it should last about

twice as long.

What is C in relation to batteries?

C ratings are simply a way of talking about charge and discharge rates for batteries.

1C, = 1 times the rated mah capacity of the battery. So if you charge your 650-mah pack at 1C, you charge it a 650 milliamps, or .650 amp 1C on a 1100 pack would be 1.1 amps.

2 C on your 1100 pack would be 2.2 amps Motor batteries are often rated in Discharge C and charge C. So that a 1100 mah pack (1.1-amp hour) might be rated for 10C discharge, so you can pull 11 amps (flow) without damaging the battery.

Then it might be rated at 2C charge rate (flow), so you charge it at 2.2 amps (2200 mah) If you have a 500-mah pack and it is rated at 16C that means it can deliver 8 amps. If you have a 1000 mah pack and it is rated at 8C that means it can deliver 8 amps. If you have a 1000 mah and it is rated at 12C that means it can deliver 12 amps If you have a 1500 mah pack and it is rate at 8C that means it can deliver 12 amps If you have a 1500 mah and it is rated at 20 C that means it can deliver 30 amps. If you have a 3000 mah pack and it is rated at 10 C that means it can deliver 30 amps.

Therefore, with my pack at 4200 mah with a 15c, it is good for 63 amps continuous draw and a burst of 20c makes it 84 amps. With my plane, I draw 69 amps wide open and less at my cruise speed.....Scott

Well, next month we will get into the Lipo battery safety issue and the speed controllers.

Until then happy landings.....Scott

AT THE FIELD

Lots of pretty airplanes at the field lately. Doll

chose the "Evergreen" model, whatever that is. It is also ~66 inch span with a built up fuse and wing. It comes with a fiberglass cowl, which is painted to match the fuse and does it very well. The covering is iron on film (feels like Monocote) and they did an outstanding job. I didn't find a single wrinkle to get out! It claims to come with preinstalled mechanical retracts, but they are not



Thompson has an electric jet that looks to be an awesome flyer. He says it is unbelievably stable and it flies very fast. Loops and rolls look excellent. It sells as a complete unit, radio, motor and model, or you can get the model and fanjet unit alone. Check at Hobby Lobby.



Charles Wilson also is sporting a new one. His is one of the P-51 ARFs sold by RaidenTech. The fuse is fiberglass and the wings and tail structure is built up. The model is a good sized one with a wingspan of ~ 66 inches.

installed. You have to assemble the units and then install them. Therein lies the big problem. I guess it's true you get what you pay for. It looks like the whole model is built using CA glue. The landing gear blocks seem flimsy and not very strong. Some of the glue joints in the gear mounts came loose in the gear installation. What I did was to cut a panel out of the top wing sheeting over the gear mount so I could stick some epoxy glue into the mount. It's not going to add a lot of strength to the mount but it might help.

I am very impressed with the looks and the weight (a little over six pounds), but I fear for the future of the model! Especially with the way I land one....

Got a picture of Bud Weisser's RaidenTech model of the Cessna 182. Fiberglass fuse and a very slick job for a very cheap price. Also, it flies like a dream.....



The real one has a span of 37 feet, so 66" span gets in at close to 15% scale, or a little over 1/7 full size. The fuse comes with molded in wing fillets and panel lines. Looks pretty impressive for the price.

I, myself, splurged after hearing about RaidenTech and got one of the P-51 kits they sell. I



AUGUST MINUTES

The August 9, 2005 meeting of the Knox County Radio Control Society was held at KCRC field. The meeting was called to order at 6:58pm by President Phil Spelt. The meeting minutes were passed as read in the last newsletter. Joel Hebert presented the Treasury Report. There were no other reports given by the other Club officers, other than to report that Denny Evans had knee surgery and John Gluck had to have a stint put in, both were on the road to recovery. We all wish Denny and John a speedy recovery. There were 27 members present at the meeting

The first order of business was a discussion about resealing the surface on the runway. The Club has the money allocated to reseal the runway, and some of the members had been checking around to see who could do the job for us. It was estimated that it would cost \$1500 to do it. After a short discussion, it was decided to close the field for 2 days and have it done. Skip Dishner said he knew of a company that would do it, and do it right.

Next was a rather spirited discussion about the upcoming mud run in September, sponsored by the Marines. A request was made to Knox County Parks and Recreation to let them, the Marines, put in a mud pit below our field. They would clear out some of the trees between us and the park and create a mud pit just for the event. There was a lot of worry from Club members that this would attract ATV's to the area, and they would destroy our site. However, we were reassured by the Parks and Recreation Dept. that signs would be put up and they (the ATV's) would not be able to access the field

There was a short report by Dennis Hunt about the Pattern Contest that is coming up August 27~28, 2005. It's open to all classes. He said that it looked like we were going to have good attendance for the event, but he still needed some helpers during the event. If you would like to volunteer, please contact Dennis

Gary Lindner reported that the broken fence posts were being taken up and replaced with new ones. And new rope is being put up as well. And thanks to Les Smith, Don Eiler and Karl Gerth for digging up the old posts.

MODEL OF THE MONTH

Winner Mike Miller brought out a Goldberg Sky Tiger which was built from a kit (Mike said it took 13 years to build), and it was all dressed up in yellow and blue. The insignias were all hand cut. Features include JR flight equipment and powered by an OS 46AX two stroke.

George Campbell brought out a beautiful SIG J-3 Cub kit covered with yellow silk, powered by a Thunder Tiger 36 Pro and has the flight gear out of his Avistar. The wingspan on the plane is 6 foot. A very nice plane George.

Bill Dodge brought out a Great Planes 40 sized Corsair that was built from a kit and modified extensively. The plane is powered by an OS 70 four stroke and has Hobbico rotating retracts. Bill said he bought the kit and it was a profile plane, which he said he didn't care for, so the sparred the sides of the plane to make the fuselage round and took some of the bend out of the wings that formed the gull. He said the plane looks good in the air and flies very smooth

CRASH OF THE MONTH

Jeff Procise lost 2 aircraft pretty much back to back. First the Mustang, which was caused by a "dumb thumb", and then the Corsair, which was caused by a possible rudder linkage problem.

On another note, George Campbell brought out some Club emblems and handed them out to members that were present at the meeting. They are very nice, laser cut and need to be assembled. Thank you George...

The meeting was adjourned at 7:45pm.
Michael J. Foley, KCRC Secretary



The Model of the Month contestants were giving the voters a hard time because all the models were deserving of the honor.

Bill Dodge did a very good job on his GP Corsair. He'd rounded normally flat sides and created a more scale appearance.

George Campbell worked

hard on making his Sig Cub look like the real one and succeeded. Even had a silk and dope cover job the way we used to do it!

Winner Mike Miller had a gorgeous Goldberg Sky Tiger, the original version of the kit. He took a very long time to get around to finishing it. He also did a lot of work on



making the decals. The finished model showed up very nicely.

A nice note was that all the entries were built from kits. The ARF is showing up most of the time now, so it was nice to see we still have some craftsmen in the club.

Seems ridiculous that a kit costs about as much as a pretty well built ARF at most hobby shops now a days.....



This'n That

The crash bug is still hanging around at KCRC field. Jeff Procise sent me an e-mail the other day saying he had pranged his Gold Edition Corsair. This one was caused (possibly) by the rudder hanging up in a hard right position. The plane started a death spiral and Jeff says he didn't even think about his left stick. If he was pulling up elevator with the rudder hard over, that's a spin control setting. He says that, with the big P-51 last week, that he was out a wad of dough! Stuff happens, I guess!

Good friend Roy Pritchard, who I don't get to see all that much any more, also had his problems the other



day. Roy only flies electric, and mostly he flies his own designs. This is one of his efforts that went home in a basket. He's smiling because he's too old to cry....

I had my old electric Slo Flyer out on the same day and let it get out of range. I am amazed how they can find the only tree in the area to land in! Good ole Bill Dodge is athletic enough to get high enough in the tree to reach it with a stick. Thanks, Bill....

Jess Walker was out there on the same day and he had his big .90 size Funtana. Flys like a dream. Jess



says he is building a really big Extra that he will probably take to Harriman to try it out. Sounds like a good idea to me cause there's a lot of room to fly in over there...

The runway has been sealed with a couple of coats of sealer and it looks really marvelous!!! You can't see any of the old patchwork or cracks, and with all the work Bill Dodge put in filling cracks, it looks outstanding. Now if we can just keep some of the more daredevil pilots from knocking holes in it!!

The Annual Ben Oliver Memorial SPA contest was held at KCRC field on August 27th,28th. This may have been the best contest we ever put on. CD Dennis Hunt was very pleased with the help he got from the club members who did not compete. This is always a hard sell for members with no interest in pattern, and a lot of them just make themselves scarce when contests roll around.

Mike Miller took on the monumental task of running the flight line. This requires that he constantly keep somebody competing in the air on two flight stations, plus four ready boxes occupied. He did a great job both days. His job also called for him to assign judges from among the competitors to each flight station. Joel Hebert took his station behind the computer and did all the scoring compilations. The contestants acted as judges, so the only club requirement there was having runners to carry the score sheets to Joel and several KCRC members helped out here. Harry Hogan and Jim Scarbrough handled the registration, and Harry and Hal Travis took care of the complicated food ordering duties. Gary Lindner was a jack of all trades running from place to place doing what needed to be done. Paul Funk, with the help of Denny Evans, was the difference between a good contest and a great contest. He set up charcoal grills and we had an old fashioned cookout; Grilled steaks and potatoes, after the flying was completed on Saturday. The cookout was well attended and everyone had a ball!

I heard many nice things said about the contest, the field and the members working the contest. I think KCRC really outdid themselves this time.

A full write up can be found on the SPA website. I am posting some pictures on the next page also.

As this is the last meeting at KCRC field until next May, you might want to come out and visit. Since the days are considerably shorter, and Daylight Saving Time is due to end, we will return to Deane Hill Recreation Center for the October meeting. Also a note to all members; in November we will have a nominating committee looking for candidates for club officers for the 2006 season. If you have any interest in keeping the club strong for another year, please attend these meetings....

