

KCRC



KNOX COUNTY RADIO CONTROL

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The meeting for December will be on Tuesday, Dec 13th, 2005, at Deane Hills Rec Center at 7:00 PM. Please attend.

*Happy
Holidays...*



*From the 2005 officers of KCRC, Merry Christmas and a Happy New Year.
From myself and all contributors to KCRC newsletter, we wish you to have the
best Holiday Season ever.....Jim Scarbrough*

The Three Deadly Sins of R/C Flying

by Jeff Procise. AMA# 774375

In the three years that I've belonged to KCRC, I've witnessed my share of crashes and even thrilled my buddies with a few of my own. One of the things that amazes me about this hobby is how *often* we crash. On any given weekend, one or two members will probably lose a plane. What's more amazing is that the vast majority of these crashes are entirely preventable. Dumb thumbs notwithstanding, most crashes are caused by simple errors that we make before a plane leaves the ground. Eliminate these errors and you'll have a far better chance of bringing a plane home in one piece.

Here are the three most common mistakes that lead to crashes—and simple steps for avoiding them.

Wrong Model Number

Programmable radios make the sport more fun and arguably safer, too. One of the primary benefits of a programmable radio is that it can store settings for several models. With the click of a button, you can call up the settings for your favorite plane, complete with trim settings, end-point adjustments, servo directions, dual rates, exponentials, and more.

But programmable radios have a dark side, too. If you fail to select the right model number before taking off, you may find yourself flying with reversed ailerons, a reversed elevator, improper trims or throws, or other ailments. Rare is the plane that lands safely when the radio is set to the wrong model number.

The solution is twofold. One, remember to check the model number the moment you switch on your transmitter and make sure it matches the plane you're about to fly. Two, *always* check the movement of the control surfaces before flying. Even if you forget to check the model number, you'll almost always catch the error if you check the control surfaces before every flight.

Having a radio set to the wrong model number is the most common cause of reversed servos, but it's not the *only* cause. Occasionally we simply forget to program in the servo directions before flying a new plane. Again: make it a habit to check the control surfaces before every flight and you'll head disasters off before they happen. Before flying a new plane for the first time, get a second pair of eyes to go over the plane with you. If the ailerons are reversed and you overlooked it once, you'll probably miss it again.

Improperly Located C.G.

There's an old saying in this hobby that says "A nose-heavy plane flies poorly; a tail-heavy plane flies once." Most beginners fail to appreciate how important a role balance plays in the performance of a plane. Balance is important in full-scale planes. It's even more important in R/C aircraft, where an inch or so can make the difference between a plane that flies well and one that's unmanageable in the air.

Most construction manuals specify where a plane's center-of-gravity (C.G.) should be located, and a plane shouldn't be considered complete until you've ensured that the C.G. is at or near the recommended location. If necessary, you

can add a few ounces of lead to the nose or tail to achieve the recommended C.G. Very often, adding lead isn't necessary; you can achieve the desired C.G. by moving the receiver battery backward or forward.

Be certain to check a plane's C.G. before flying it for the first time. I usually mark the location of the manufacturer's recommended C.G. with short pieces of trim tape so I can check the C.G. even if I don't remember precisely where it's supposed to be. Assuming your aircraft's fuel tank is on or forward of the C.G., be sure to check the C.G. with the tank empty. Finally, if your plane has retracts that fold backward (like the F4U Corsair), check the C.G. with the wheels up. Deploying the gear prior to landing will move the C.G. forward, but it's better to be nose-heavy during landing than tail-heavy during flight.

Inadequately Charged Batteries

If you crave excitement, try flying your favorite plane without charging the receiver battery. To double the fun, don't charge the transmitter, either. Then you can take bets on which will fail first.

Joking aside, charge those batteries before flying, and check them at the field if you're not sure whether they're charged. Most transmitters have built-in voltage meters; I don't fly if the voltage is less than 10.0V, just to be safe. You can check receiver batteries with an inexpensive voltmeter (which should be part of every flight box), or you can install an onboard voltage indicator like the Hobbico VoltWatch. Remember: low batteries lead to dead planes. This is one case where an ounce of prevention is worth a pound of cure.

The above article was written by KCRC member Jeff Procise. I will welcome any and all contributions to the newsletter. I'm hoping Jeff will find the time to write more (like one a month?).



The pictures are of a couple of new members. The first is Prof. Chang Hyun Sohn. He is progressing rapidly in flying the electrics. The glider he's holding looks like a winner. The next picture is of William Shaw. He

attends UT when he's not flying. I don't think William is new to RC as he does very well flying the Balsa USA kit built model.

Both were at the field Friday, November 10th.



MINUTES FROM NOVEMBER, 2005

Meeting was called to order at 7:00 PM on November 8, 2005 by President Phil Spelt. There were 21 members present.

Phil opened the meeting with a report on Ed Hartley. Ed (who had a knee replaced) is doing well and is expected to go home from the Therapy Center on Saturday. Phil Cope gave a report on Denny Evans who is also improving, although he is still wearing a body cast from all his injuries suffered when a deer tried to get on his motorcycle while Denny was speeding down the road.

There were other noticable absences as well. Mike Foley, KCRC secretary, had to work, and VP Gary Lindner was out sick with some sort of bug which he didn't want to pass around to other members. (Thank you, Gary).

Treasure's report was given and approved.

Minutes from the October meeting were approved, although there was some question brought up by Karl Gerth about the instructor program discussed last month. The program described by Phil in his column on page 1 stated that the club strongly urged new members to take advantage of the certified instructors whose names will be listed on the freq board at the field. Mike wrote in the minutes that ONLY certified instructors would be used and noted that no other club member could teach somebody to fly unless they became certified. This was stated at the meeting. After some discussion, it was noted that there was no way this could be enforced. That if a new member wanted a friend or some one else to instruct him, the club could not enforce its rule. The upshot was that the rule as stated by Phil in his column was the correct interpretation. The club encourages the use of certified instructors , but if a new member wants to take the chance with someone else, then it's on his head.

OLD BUSINESS

Along the same line, Doll Thompson said he had heard of an instructor (not a KCRC member) charging students at the field for his time. There was a good deal of discussion of this. One point is that if he is flying at the field, he must be a member of KCRC or a guest, who is allowed no more than six visits. There was some question about how a non member, or a non certified instructor, would affect our AMA insurance. Pres. Phil will check on this. Some members suggested that a new member might want to insure (by paying for his time) that an instructor would be there for him. Some felt this should be OK. There was no resolution to this and will be discussed further at the December meeting.

Also from the October meeting, the rule about NO ADS being posted on the boards at the field was brought up. Someone suggested that the Executive Board should bring a rule such as this before the membership for a vote. A discussion was held about furnishing another board for the purpose of posting ads for selling items. Bob Helsel said that he had cork boards that might be used. Phil Cope said they would need a frame to protect them

from the weather.

There was no resolution to this and it will be discussed further at the December meeting.

NEW BUSINESS

The December meeting will be used to set dues for 2006.

Also the place for the January banquet will be set. Doll Thompson will check on the availability of the Mandarin House, and Bud Weisser will check on the new Gondeliers in Farragut. Both have meeting rooms. The New China Super Buffet in Oak Ridge is where the last few banquets were held and will probably be considered also.

Also new officers for 2006 will be elected. At present, candidates are needed for the offices of secretary and president in order to have at least two candidates for each office.

New members were introduced. Prof. Chang Hyun Sohn was present and made welcome. William Shaw was not able to be at the meeting, but said at the field that he planned to be at the next. President Phil Spelt's daughter, Sharon, visited the meeting. Sharon is also a flyer. Another visitor, Tommy Neubaur, is a prospective member.

CRASH OF THE MONTH

No entries for crash of the month

MODEL OF THE MONTH

Doll Thompson suggested that we make a change in the format of the Model Of The Month contest. He suggested that we make two categories instead of the one category we now have. His idea was that scratch or kit built models might have a better chance against ARFs if they didn't compete directly. No action was taken at this time. It was pointed out that usually the kit or scratch built model won out over an ARF.

There were three entries this month;

Jeff Procise entered a beautiful B-25. It was a KMP Models ARF complete with Saito .82 engines, 15 servos, retracts, and Robostruts.

Jerel Zarestky entered his discus launch glider called The Fling. I've seen this one fly and it is a good one. Jerel gets about 80 feet altitude with his launch.

Carl " Bud " Weisser made an impassioned speech promoting his entry that he named The Dollfly in honor of the influence an unnamed friend had on his life. I saw tears (from laughing) in the eyes of several members in attendance. The model itself defies description! Suffice to say that it consisted of a lot of aluminum angle, Coroplast and a wing borrowed from a Sky Raider. Bud said it flew very well.

Jeff won the fuel..

Meeting was adjourned at 8:12

Minutes taken by Jim Scarbrough
for Mike Foley, KCRC Secretary.

Unfortunately, I forgot my camera , so there is no pictures of the models. However, Jeff sent some good pics of his B-25, which I will put in next months edition.

This'n That

This is the third article that Scott has done for us on electric flying. This one is on batteries and there is enough information to make two articles.

Watts Up

By Scott Anderson, AMA 227026

Well now, let us look at Lithium cell technology, I found some good info on some different forums and from Tanicpack.com. Lithium polymer (Li-poly or LiPo) and lithium ion (Li-ion) is quite different from the more commonly used NiCd and NiMH. There are many things to consider before using lithium cells for e-flight. Nevertheless, none is more important than safety. While all cells must be treated with respect due to the energy they contain when fully charged, lithium cells have the highest energy density. They also have some unique qualities that require special safety considerations. Before discussing other aspects of lithium cells, it is important to first understand these special safety considerations.

1. Charging/Safety IMPORTANT!

If you are new to flying, DO NOT use lithium polymer batteries. NO EXCEPTIONS Read on to find out why.

Lithium cells must be charged very differently than NiCad or NiMH. They require a special charger specifically designed to charge lithium cells. In general, any charger that can charge lithium ion can charge lithium Polymer assuming that the cell count is correct. You must NEVER charge lithium cells with a NiCad or NiMH only battery charger. This is dangerous. Charging cells is the most hazardous part of using lithium batteries. EXTREME care must be taken when charging them. It is important to set your charger to the correct voltage or cell count. Failure to do this can cause the battery to spew violent flames. There have been many fires directly caused by lithium batteries. PLEASE BE RESPONSIBLE when charging lithium batteries.

Here are a few MANDATORY guidelines for charging/using LiPos.

1. Use only a charger approved for lithium batteries. The charger may be designed for Li-Ion or Li-Poly. Both batteries are charged in exactly the same way.
2. Make certain that the correct cell count is set on your charger. If you do not know how to do that, get a charger that you do know how or do not charge the batteries.
3. Before you charge a new Lithium pack, check the voltage of each cell individually. I do after each flight prior to charging and after each flight. This is critical in that an unbalanced pack can explode while charging even if the correct cell count is chosen. If the cells are not within 0.1 to 0.4 volts of each other then charge each cell individually to 4.2 volts so that they are all equal. If after

every discharge the pack is unbalanced, you have a faulty cell and that pack must be replaced.

4. NEVER charge the batteries unattended. This is the number one reason for houses and cars being burned to a crisp by lithium fires.

I would like to see some fire extinguishers placed at the field for this reason, at least a 5-pound ABC unit.

5. Use a safe surface to charge your batteries on so that if they burst into flame no damage will occur. Vented fire safes, Pyrex dishes with sand in the bottom, fireplaces are all good options.

6. DO NOT CHARGE AT MORE THAN 1C.

7. If a cell balloons while charging DO NOT puncture the cell while it is still hot. Put the cell/pack in salt water and wait until the cell has cooled. Once it is cool gently puncture the pack's outer casing and put it back in the salt water. After this the cell is safe to throw in the garbage.

8. VERY IMPORTANT: If you crash with your lithium cells they may be damaged such that they are shorted inside. The cells may look just fine. If you crash in ANY way carefully remove the battery pack from the airplane and watch it carefully for at least the next 20 min. Several fires have been caused by damaged cells being thrown in the car and then the cells catch fire later and burn the car completely.

9. Charge your batteries in a open ventilated area. If a battery does rupture or explode hazardous fumes and material will spew from the battery.

10. Keep a bucket of sand nearby when you are flying or charging batteries. This is a cost effective way to extinguish fires. This is very cheap and necessary. (Maybe we should get some at KCRC field?)

11. Realize that these batteries are dangerous, do not think to yourself that "it won't happen to me ". As soon as you do that it will happen to you and you'll be trying to rescue your kids from your burning house or car.

(continued next month)

Here is a picture of a future Model of the Month contestant as proposed by Charles Wilson, Doll Thompson and Jeff Procise. Builder unknown.....



KCRC Ballot: Election of Officers

December 13, 2005

If you can't attend the Dec meeting, fill out the ballot and mail to
Phil Spelt, 730 Poplar Creek Rd, Oliver Springs, TN 37840
Must be received before the meeting on Dec 13th

Please circle your choice for each office, and print you name & AMA number, then sign at the bottom.

President: * Phil Spelt _____
write-in

Vice President: * Gary Lindner Paul Funk _____
write-in

Secretary: Jin Scarbrough Kevin Giles _____
write-in

Treasurer * Joel Hebert Bill Dodge _____
write-in

Safety Officer: * Bill Walters Scott Anderson _____
write-in

Board (2): *Ed Hartley Mike Foley *Dennis Hunt Gene Waters
_____ write in

Please print your name _____ AMA Number _____

Signature

* --Presently serving