



## Newsletter

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**Hello KCRC, My name is Denny Evans and I'm the new safety officer at KCRC.** Some of you may know me and some may not, but I'm a long time member that had to get out of the sport for a little over 13 years ago when my mother got sick and now I've been back in the hobby for about 3 years.

What I noticed about this hobby when I returned to it was all the changes that had taken place in my absence, all the 2.4GHz Transmitter and receiver technology and the battery technology was so overwhelming. I really had to relearn everything I thought I knew, especially the LIPO battery technology..

When I was at the last club meeting we had a father, son and grandfather with a new (in the box) electric airplane and a DX6 transmitter. They were new members to KCRC ( and new to the sport as well ). Now you may ask, " What does this have to do with safety? ". Well, after the meeting I began to talk to them and realized they also had very limited knowledge about the sport and especially about the maintenance of LIPO battery's. When we see, and/or know. about someone who needs help in this area, we should take the time to tell them about the charging, storage, and safe handling of LIPO battery. You might think that people know all about this by now, but the fact is, a lot of people that are new to the sport do not. As I talked with this family, I noticed Rick Thompson was also taking to them about this same subject, I would like to thank him for his efforts in taking these people under his wing and looking out for their safety. Thanks to all the club members that takes the time to help out with safety. Remember, what we do everyday becomes second nature, but to people who don't know, it can be dangerous and costly.

Your Safety Officer..... Denny

**Welcome back, Denny.** Haven't been to the field to welcome you but I remember those big models you and Jamie flew and the deep fried turkey you did at a FunFly...

### 2018 Elected officers

Pres.....Ed Dumas.....[ed@eddumas.com](mailto:ed@eddumas.com)  
Vpres.....Paul Funk.....[paulfunk24@gmail.com](mailto:paulfunk24@gmail.com)  
Secretary.. Rick Thompson.....[jrt1953@gmail.com](mailto:jrt1953@gmail.com)  
Treasurer..Joel Hebert.....[hebertjj@gmail.com](mailto:hebertjj@gmail.com)

### EXECUTIVE BOARD

Randy Philipps..... [randy@accesssolutionsinc.com](mailto:randy@accesssolutionsinc.com)  
John Baselone.....[jrbfarm@yahoo.com](mailto:jrbfarm@yahoo.com)  
Rick Thompson.....[jrt1953@gmail.com](mailto:jrt1953@gmail.com)  
Safety Officer

Denny Evans..... [evans9633@bellsouth.net](mailto:evans9633@bellsouth.net)

## THIS'N THAT

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► Got a note from innovative and prolific builder Michael Catlin;

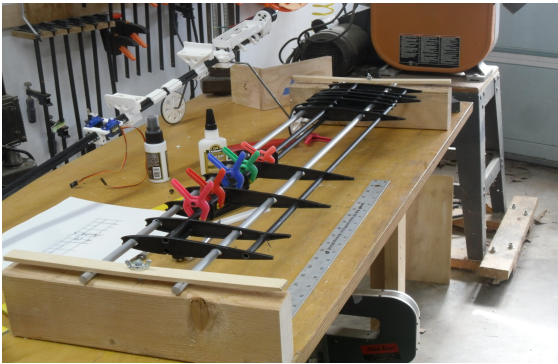
" **The day** I put the plane I had been flying for the last 6 months into a tree ( it's still there ), I started a replacement. It's basically a Slow Stick but with a few twists. I call it an ArrowStik. That is based on the fabrication of the boom being made from 4 carbon fiber arrow shafts. One was cut into thirds and spliced onto the others with short pieces of fiberglass driveway markers. The major details are 3D printed formers made from ABS plastic that slide onto the boom. M3 socket head screws clamp them in place. The arrow shafts are threaded at one end for an 8-32 screw and I use these screws to hold the motor mount in place as well as using a pair of clamping 3mm screws. Below the battery tray is a pair of mounts that hold the ESC and allow full cooling airflow. The landing gear mount has 2 'crossed' 5/32 piano wire details that hold the 3D printed wheels with O-ring tires. Loosening 4 screws allows me to slide the landing gear forward or aft to improve the on ground handling. The plane will be balanced by sliding the wing forward or aft to achieve proper CG placement.

Between the wing mounts there is a pair of receiver mounts that clip onto the boom. A LemonRX receiver in a 3D printed "LemonWedge" will be glued onto this clip. The servo mounts use a clamping screw to secure them in place and 2mm screws hold down the servos. These screws thread directly into the plastic servo mounts.

The tail feathers are made from Dollar Tree foam board with 3/16 pine dowels at the leading edge and hinge edges. The dowels and raw edges of the foam board are wrapped with paper wetted and applied with Titebond glue. The tails are painted with Cub Yellow paint purchased from Home Depot by providing a color sample I obtained from Ed Dumas. The tail feathers are mounted to the boom by means of a 2

piece 3D printed detail that clamps onto the boom. The vertical is glued in place but the horizontal is clamped between the 2 3D printed details. This allows me to insert a printed wedge to allow for changing incidence angles as needed. The tail wheel mount was bent from 1/16 piano wire around a 1/4-20 bolt. To drill the rudder for the tail wheel mount, I 3D printed a centering gage to drill into the center of the 3/16 dowel.

Since the wing from the other plane still resides in the tree I am approaching a replacement from 2 different directions. A hot wired foam wing and a built up wing. To make the hot wire templates I created 2 tools and 3D printed them. The nomenclature on the tools denotes the airfoil section and theoretical chord length. The first tool holds a 1/8 thick piece of rectangular plywood that I run against the cutter on my shaper table. The second tool accepts the shaped profile and allows the second side to be shaped. The tall handles are to keep my fingers safe. The second



approach is to build up a wing using arrow shafts for spars and the rest 3D printed. Half ribs maintain the leading edge contour. These 3D printed ribs will be slid over 3/8 aluminum rods and clamped at each end to prevent twisting. The ribs are pretty much the largest I can print on my printer so to make the aileron spars I needed to bond 2 shorter lengths together. The white aileron spar has yet to be bonded. The wings will be covered with 1.5 mil Laminating film and painted with latex cub yellow. It's my intent to make both types of wings and compare weight and ease of assembly.



The spar rods were bonded to the root rib with a gauge to insure the rods were at right angles to the

rib. Then a shear web was bonded to the root rib and the spar rods. Next a duplicate of the root rib was bonded to the spar rods and the shear web. The root rib and second rib have a mold line offset to allow for 1/16 sheeting to be added. Next all the remaining ribs were slid into the spar rods from the outboard end in the correct order. Once these were in place 3/8 aluminum bars were slid into place and clamped at each end. One by one the ribs were slid into place with the shear webs acting as spacers until the aileron rib was installed. This consists of a standard rib and a shortened rib which will support the aileron spar. Then the inboard end of the wing panel was clamped, squared and bonded. ....Michael “

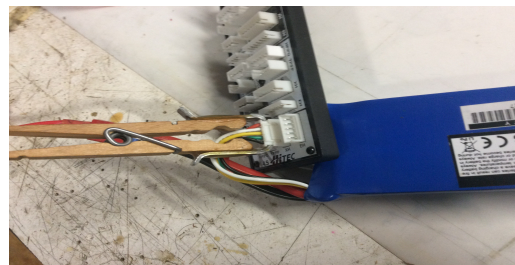
Michael is becoming a pro at 3D printing. Soon he'll print out the model ready to fly. Motor and all.

Good job, Michael. And those ribs look great. Send a picture of the finished job....

► Jerel Zerestky sent a short note on how to connect those pesky small plugs;

“ Jim, Here's a quick little item if you'd like to use it; I've always struggled a bit trying to disconnect the balance connector from the charger on newer LiPO batteries. Theses connectors are intended for use in assembly and occasional disassemble between circuit boards and as such, there's not a lot to grab on to for unplugging them. Here's a couple of solutions for those particularly tight examples;

The first is a "plug-puller" made from a



clothespin and a couple of 1/16" aluminum strips bent ."just so"and epoxied to the clothespin.

The second is a plastic snap-on grip available on the internet that captures the connector and gives you lots of area for a good grip...Jerel “



**Wonder if you** can you get those plastic thingies in sizes?



## 2018 Cub Fest

### Got this note from President Ed

**Dumas:** The following sanction has been approved by your district Contest Coordinator:  
06/02/2018 - KNOXVILLE, TN

(C) KCRC CUB FUN FLY

Site: KCRC CLUB FIELD

### Category: Fun Fly

Event Description: Bring your favorite Cub or Cub-type airplane to fly for fun. Lunch will be available, \$5 landing fee, registration at 9am. Sunday, June 3, 2018 - Rain Date only.

CD/EM: EDWARD J DUMAS JR Phone: [865-386-7506](tel:865-386-7506) email: [ED@EDDUMAS.COM](mailto:ED@EDDUMAS.COM)



*Pic from 2003. May have been Jerel's.*

These events have proven to be very popular. What's not to like about the Cubs?

► Here's a note about how to save space;;;  
“ In a shop where space is at a premium, storage of heli's can be a real issue. In my shop free wall space or horizontal surfaces are all occupied. I tried hanging heli's from the ceiling with wire hooks and other contrivances but they just weren't easy to hang, they let the heli rotate or left too much of the heli at head bumping heights. My most recent method seems to be working pretty well and the heli's hang tight against the ceiling....upside down. It's just two or one (a little wider) firing strips screwed into the floor joists which space two other strips away from the ceiling far enough to let the landing gear skids slide between them and the ceiling. I've made single heli units and ones to hold two to four heli's. The pictures are self explanatory .

Cheers, Jerel Zarestky “,



Thanks, Jerel. My garage ceiling is full of models. Keeps them handy for looking. Which is about all I do anymore.

### KCRC Meeting Minutes 3/13/2018

- The March 2018 KCRC meeting was held at Fellowship Church, 8000 Middlebrook Pike, room 605. President Ed Dumas called the meeting to order at 7:05PM. There were 44 members in attendance.

Ed introduced special guest, Doug Bataille from the Knox County Department of Parks and Recreation. Mr. Bataille addressed the group concerning the possible future development of the Melton Hill Park land. He made the following points:

The Hardin Valley community is growing rapidly and the pressure to develop the Melton Hill Park land for community activities such as athletic fields, etc. is becoming greater. There is a possibility that such development could displace KCRC from their current location.

No specific plan for the Park improvements has yet been developed. At such time that Knox County begins developing a plan, there would likely be community meetings in which KCRC would be able to participate.

It would likely be a minimum of 5 years and possibly 10 or more before development actually begins. It would most likely take place in Phases. The flat land nearer the point, North of where KCRC normally flies, would likely be developed first. It might be possible for KCRC to remain in their current location during the first stages of development. Development of the property KCRC currently uses would likely come later because considerable expensive excavation would be required to suitably flatten that property for use.

KCRC could expect to receive 1 to 2 years notice before relocation would be required.

The county can make no commitments at this time, but there may be a possibility that KCRC might be able to use a narrow strip of land fairly close to the water for their runway by incorporating this into the park development plan. The runway could perhaps be situated where flying would take place out over the water, thereby using much less property than is currently being used.

Club members thanked Mr. Bataille for all the support in the form of land use that Knox County has provided over the years.

Mr. Bataille thanked KCRC for performing a volunteer based community service that does not have to be supported with taxpayer dollars.

- Ed recognized new members George Simpson and Ricky Gafford. Previous KCRC member Tony Wylie also rejoined.

The February meeting minutes, as published in the newsletter, were approved by unanimous voice vote.

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

John Basalone reported that there are no specific field related issues to report at this time.

Safety officer Denny Evans reported that on a recent occasion people had walked up from the park through the area we normally fly over. Please be extra vigilant of anyone wandering through that area and take measures as necessary to maintain their safety.

Cub Fest has been sanctioned and will be held June 2<sup>nd</sup> with rain date of June 3<sup>rd</sup>.

Mike Skorski who passed away recently donated a considerable amount of model equipment to the club with a request that as much as possible go to young people who would like to get started in the hobby. There have been 3 beneficiaries thus far. Any leftover equipment will be brought to Cub Fest for the benefit of club members who would like have it. Donations for the family will be accepted.

Phil Spelt will check with the Marines on the status of the Mud Run to be held on a date yet to be determined.

A float fly will likely be held sometime in the summer but no date has currently been set.

Gene Waters announced that John Williams' equipment will also be brought to Cub Fest. John passed away last year.

Joel Hebert announced that dues must be paid tonight to avoid a \$5 late fee. After the April meeting, the late fee goes up to \$10.

Joel Hebert announced fuel inventory is down to about 12 gallons. He introduced a motion for the club to purchase another drum of fuel. The motion was approved by unanimous voice vote.

**Model of the Month** was won by Carroll Jernigan for his beautifully built Lockheed Y03A. The plane has not yet flown.

**Crash of the Month** was won by Ed Dumas for the unfortunate loss of his large Extra 300. Post crash investigation revealed that an Anderson electrical plug used as a safety electrical disconnect dislodged during a snap-roll maneuver rendering the electronics without electrical power. Unfortunately the plane was destroyed. The pilot's body could not be found in the wreckage however. He might be wandering through the woods in a dazed state so please report any such sightings to the safety officer. :-)

**Respectfully Submitted, Rick Thompson, KCRC Secretary**



*: Carroll Jernigan's MOM winner. Picture by Phil Spelt*

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**Good meeting** and was well attended. The threat of losing the field will get your attention in a hurry. Doug has been most helpful in retaining the site.

The probability of at least five more years is encouraging. Actually, I'm surprised that we have hung on for 45 years with such a beautiful site to fly on. Former SPA president Bruce Underwood called it the most beautiful site in the south. I agree. I used to visit it to just sit and enjoy the gorgeous view and the company of my friends.

I more than likely won't be around to help build a new field. I've done that on four occasions. Two fields for early clubs in Lenoir City in the early sixties, one for the old ETRC club at the Lovell Road site in 1970, and the present KCRC site in 1973. An awful lot of work!!

Construction of a runway will be some different now than it used to be. We built them like the county built rural roads. Break up the earth, remove the grass and rocks, level, roll to pack the ground and then soak with burnt oil. The oil was to reduce dust and prevent water from soaking in and making pot holes. It made a smooth runway but required a lot of effort to maintain. The environmental considerations today would prevent using the oil so probably a grass runway would be most practical if we had to move. Finding a place to put a runway would be an effort also with the scarcity of the amount of land needed for our flying. When you consider the safety requirements for flying, it takes a lot of sky. A group used to fly at a private airfield in Loudon next to the interstate until the field owner got worried about his responsibility. Very scary. These radios and equipment are very dependable up to a point, but stuff happens. ( See Ed's crash of the month winner in the minutes )..

**Anyhow, a new season is upon us, so get your equipment out and check it over carefully and get ready to fly.**

**Hope to see you at the field.....Jim**