



KNOX COUNTY RADIO CONTROL

## Newsletter

Knoxville TN Dec 2015 AMA #594

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### 2015 Elected officers

Pres.....Ralph Holder.....[holderrf@charter.net](mailto:holderrf@charter.net)  
 V. Pres.....Ralph Colon.....[ralphcolon@bellsouth.net](mailto:ralphcolon@bellsouth.net)  
 Secretary..Phil Spelt.....[chuenkan@comcast.net](mailto:chuenkan@comcast.net)  
 Treasurer...Joel Hebert.....[hebertjj@gmail.com](mailto:hebertjj@gmail.com)

### EXECUTIVE BOARD

Jeff

Prorise.....[jeffpro@wintellect.com](mailto:jeffpro@wintellect.com)  
 Randy Philipps.....[randy@accesssolutionsinc.com](mailto:randy@accesssolutionsinc.com)  
 Phil Cope.....[philipcope@bellsouth.net](mailto:philipcope@bellsouth.net)

### Safety Officer

Ed Dumas.....[ed@eddumas.com](mailto:ed@eddumas.com)



## THIS'N THAT

► **My favorite time of the year!!! Friends, let me wish each of you and your family the merriest Christmas ever and the Happiest of New Years.**

► Friends of John Heard held a memorial combat session in October. John was an avid member of this group of KCRCTers who got together most every Sunday morning in reasonable weather for a little fun. The model



*Charles Wilson sent me this picture of the combatants. From left standing; Don Eiler, Sid Tibbs, Craig Dieter, Alan Valeo, Carroll Jernigan, Larry Weston and kneeling is Randy Philipps. All they need is a uniform; some old WW I duds would look good.*

used in these sessions is the inexpensive GWS Stiks with streamers and they have a ball mixing it up! Don Eiler wrote up a bit of humor on it;

### JTH Memorial Combat Flight

by Don Eiler

Good turnout - seven. Me, Sid Tibbs, Larry Weston, Randy Philipps, Craig, Carrol Jerrigan, and Alan Valeo. John's kids Chip and Crystal and her significant other were there also.

After pictures (I asked why not take the pictures after the Derby?), we all got in the air in good form. However, not 30 sec. later, Randy quit flying and started spectating. Thump! (He admitted it. Me and Nhoj never did that!) A couple minutes later Larry lost his plane. Thump! (Behind the new fence in the pits!) As I had made a 4 minute test/trim flight before the Derby, I came down at about 7 minutes - unscathed. Not even a streamer cut. Alan and Carrol came down soon thereafter, leaving Sid and Craig up on fumes. Sid got another cut on Craig and about the time he was declared the winner, he and Craig collided! What a finish! Both were totally out of power, so the collision was not hard. Sid thought if he had been a little higher and could have reset his ESC, he could have flown away. Craig had a broke prop and cracked wang.

The new fence is about 5 ft. high. Same kind of netting as before. Safer. It didn't bother my view of the runway, but that was flying the Stick. They said one came up and over it yesterday - into the pits. Not so easy.

We all hoped that John enjoyed the show!.

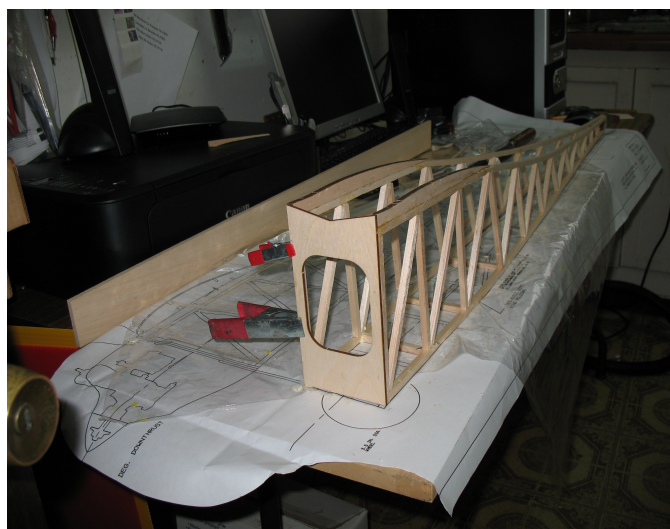
► This group will continue to have these sessions I'm sure, and every member of KCRCT is invited to come on out and join in the fun. There are other types of flying in the club if you don't care for combat. Old time pattern in the SPA is one. We also have a good place for float flying and also just plain flying around for fun. My type of flying.



► I've mentioned my growing interest in the old timer type models and I'm going to talk a bit more about it. As I said, I ordered the plans and parts for a Benny Boxcar from Bob Holman's plans service. Here is a couple items you have to have if you're going to build from plans. The item on the left is a Master Air Screw



plane that does a fast job shaping balsa. The other is a Master Air Screw balsa stripper that is indispensable for cutting balsa into strip stock needed for spars and longerons. It is easily adjusted to any size up to about an inch and was used to cut all the wood for the fuselage shown here except for the firewall and the wing saddle.



It does a great job and is cheap. The building board is from Tower, 48" x 16" and flat. T pins work well with it.

I used Titebond glue almost exclusively and cut all the  $\frac{1}{4}$  sq and  $\frac{3}{16} \times \frac{1}{4}$  inch wood needed for the model from one  $\frac{1}{4}$  " thick, 48" long, 4" wide balsa plank. I did need some  $\frac{1}{16}$ <sup>th</sup> thick sheet for planking on the wing and tail. The  $\frac{1}{4} \times 1$  inch trailing edge stock was planed from soft  $\frac{1}{4} \times 1$  " balsa stock.

To cover, I used some Econocote film I had on hand as well as some of the Hobby King film I talked about before.. I'm liking the Hobby King film more every time I use it.

I used some very light 3" wheels I found at HobbyTown and the power is from a G-32 600KV electric motor from Hobby King and a 60 amp ESC swinging a 13-6 prop.. The two servos needed are Hitec standard size and are mounted against the firewall..

One thing that has surprised me is the CG. Most every model I've ever flown has had the CG at about 30% of the chord of the wing. L.A. Johnston and George Shacklett assure me that the CG will work very well at 50-60% of the chord, which is about where it is. I test flew it at a soccer field and think I need some nose weight. Although it flew OK, it was just very sensitive to the sticks. It's a big model at 72" span and 40 ounces.



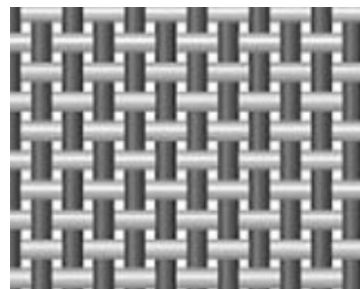
At this time, I'm starting on another one because the way I fly, this one won't last long, and what else am I going to do on these long cold dark nights?.....Jim ■

## Using Fiberglass Fabrics

By Michael Catlin, KCRC

After discussing resins used to make fiberglass parts we need to discuss fabrics. Most common fabric is fiberglass which consists of microscopic glass fibers spun into thread and then woven into cloth. There are hundreds of kinds of fiberglass cloth available and I'll briefly give a rundown on the basics.

Two things to note are fabric stability or the ability to resist in plane shearing of the cloth and the straighter



: Plain weave

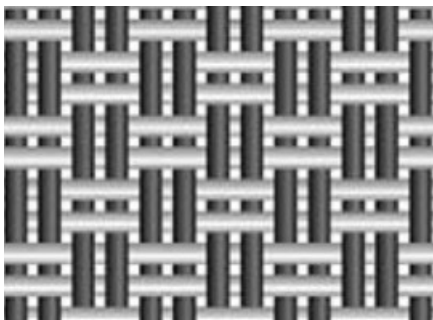
the individual fibers the stronger the final laminate. The issue with in plane shearing of the cloth is that if a pattern is precut there may be significant distortion when

wetting it out and placing it in the mold.

First is the plain cloth, much like a bed sheet the fibers go over one and under one.

The plane weave provides good fabric stability or the ability to resist in plane shearing but the locking effect of the weaving reduces pliability and having the fibers bend over adjacent fibers reduces strength and stiffness when cured

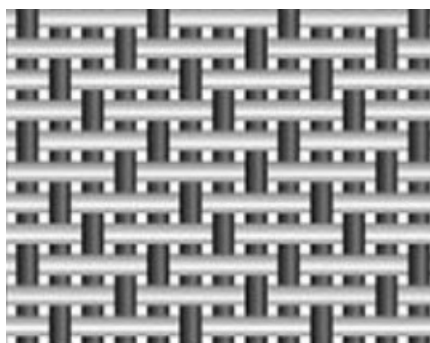
Styles 104,106,108,1080,1280,2113,2313,3070,1522, 3733,7533,7628,7532, 1564,7544 The styles listed are roughly by increasing weight and thickness. Style 1080 would be good for wing skins at 8 oz for a 600 square inch wing. Thickness of .002 and a breaking strength of 125lbf/in



*basket weave*

The basket weave has two or more warp yarns and two or more filling yarns are alternately interlaced over and under each other. This results in a more flexible cloth than the plane weave and since the fibers are bent less often the laminate is stronger and stiffer than the plane weave. Style 4526 5.6Oz/sq yard

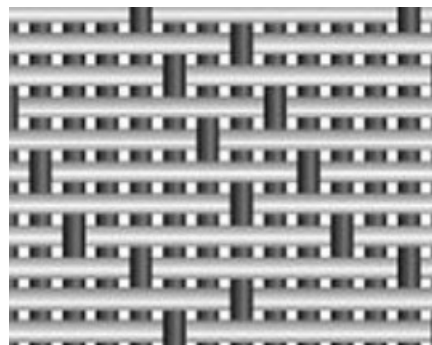
The Four Harness Satin (Crowfoot) is easier to



*four harness satin weave*

drape over compound curves than either the plane weave and the basket weave and since the fibers run straight over 3 other fibers rather than one or two the fabric gains in strength and stiffness. Styles 120, 220, 1557,1543, Style 120 or 220 would be good for fuselages at 3.4 oz per square yard and .004 thick and 177 lbs/in and 192 lbs/inch respectively. One ply each side of a thin foam core would give remarkable strength and rigidity.

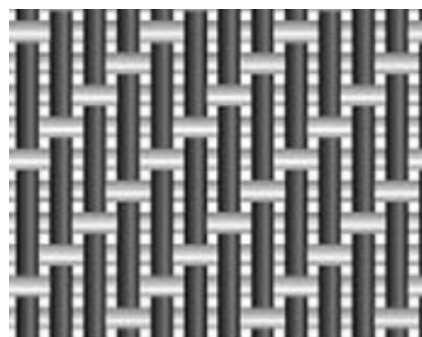
The Eight Harness Satin weave is similar to the Four harness weave except the fibers run straight over 7 other fibers this results in a very pliable cloth and can nearly be formed around a ball but the fabric is easily



*eight harness satin weave*  
distorted. Style 7781,1582,7645,3783

The last fabric weave to note is the Twill Weave. This fabric is very drapable and yet stable due to the close pattern of crossing fibers while still having long runs of straight fibers. Twill weaves come in various styles denoted by the number of fibers crossed before bending around a crossing fiber. Style 7725 8.61 Oz/yard and 440 lbf/inch.

As for suppliers, good sources are Thayercraft,



*twill weave*

Inc, Raka Inc. and Aircraft Spruce. Thayercraft stocks  $\frac{3}{4}$  oz cloth at \$3.90 per yard and less. Raka stocks  $\frac{3}{4}$  oz cloth at \$2.75 per yard and less. Hobbytown  $\frac{3}{4}$  oz fiberglass at \$7.99 per yard. Raka also sells epoxy resin.

Next, how to deal with a sticky mess!..Michael ■

## **SAM Seminar**

Recently, George Shacklett, an Emeritus member of KCRC and a member of the Society of Antique Modelers Hall of Fame, gave a presentation to KCRC at the November meeting. It was well received and George sent this followup

“ To KCRC—thanks for allowing me to expound on the fun of building model airplanes and explanation of SAM. Following the meeting, the thought occurred to me that a meeting of interested modelers might be an excellent way to maintain interest and we could learn from one another. With that in mind, I would like to propose that we could meet together at my house periodically to discuss the various aspects of building, especially SAM models. The meetings could be in the evening at whatever interval suits. I have a living area



downstairs adjacent to my shop where we could sit in comfort and discuss whatever topic is up. If I have something on the building board, I would welcome a critical look. In good weather we might test an engine in the back yard now and then. Topics could be any aspect of building--- choosing tools, props, balsa selection, sources of supplies, covering, weight considerations, trimming, trammeling, engines, or any topic germane to building that the group would like. If needed I'm sure we could find an expert now and then. Members could research the scheduled topic of interest and either report on the findings or discuss thier solutions to problems..

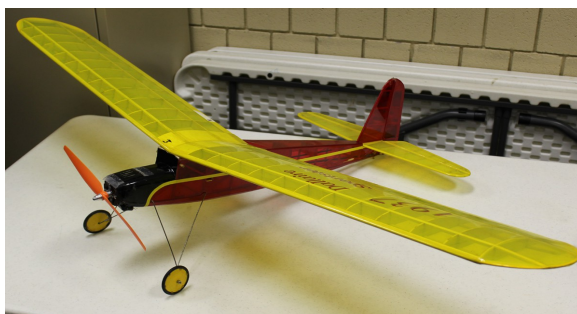
If the idea appeals to some members, they may contact me at any time and we can see what we can work up....George Shacklett , Phone 525-1369, shack11@bellsouth.net “ ■



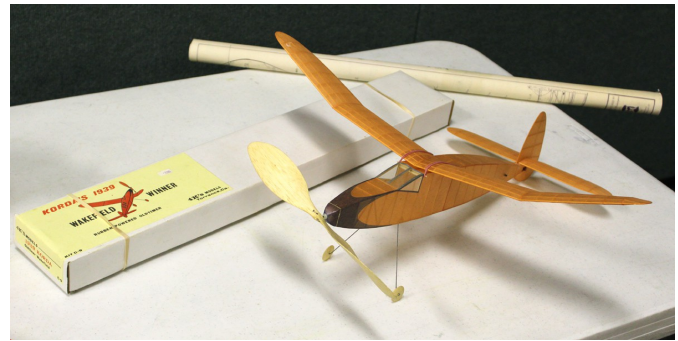
*Illustration 1: George's Flamingo won the prestigious SAM Concours competition.*



*Illustration 2: This Strato-Streak is also one of Doc's models.*



*Illustration 3: This half size Dallaire is by Don Eiler. Don built it from plans. Not sure if its ever been flown.*



*Illustration 4: This Korda Wakefield competition rubber powered model is by Craig Dieter. In my opinion the hardest build because of its frailty.*

**Bill Leonard sent me all these pictures of models brought for Show-A-and-Tell and MoM at the meeting for George Shackletts presentation.**

## **KCRC Club Meeting Minutes, November 10, 2015**

President Ralph Holder called the meeting to order at 7:00pm in the Fellowship Church on Middlebrook Pike. The only “guest” was George “Doc” Schacklett, who presented a program on the Society of Antique Modelers after the business meeting.

Minutes of the October meeting were approved as presented in the November News Letter.

Joel Hebert gave the Treasurer’s Report, which was approved by unanimous voice vote. We also had a detailed discussion of the projected budget for 2016, based on expenditures for 2015. This served as background information for a discussion to set dues for next calendar year. The recommendation is to leave the dues at \$72.00 for an adult membership in 2016. The other dues will be set proportionally based on that dues level.

Thanks and recognition were given to John Basilone for recent mowing; to Jim Scarbrough for his continued great work on the Newsletter; and to Jeff Prosize for keeping the web site up and functioning.

Since no other officers had any report to make, attention was turned to the report of the Nominating Committee, chaired by Rick Thompson. The list of nominees is shown below.

Nominees in parentheses are of the canid persuasion, and are listed there only to fulfill the requirement for having two candidates .or each position.

Ralph Phillips reported for the Field Committee. The primary structure of concern is the pavilion. Information about several processes for re-surfacing the floor was discussed. It was noted that there is not time before cold weather sets in to do that job, so it will be further explored over the winter. Some carpentry needs to be done on the wide steps facing the runway, and the



railing on the east steps needs to be repaired. This work will be scheduled in the next week or two. The concrete footers on the south side of the pavilion are cracking and need to be repaired. Epoxy was suggested as material for filling the cracks and holding the footer together, as well as for fashioning a cap to keep water off the tops of the footers.

There was a brief report on the Float Fly of a couple of weeks ago. There were about 8 or 9 pilots with a variety of planes. Several photos were posted on the KCRC Facebook page.

**Crash of the Month:** There were no formal crash reports this month.

**Model of the Month:** Ed Dumas showed a 3.4m all-composite glider, and explained several of the specialties of the plane.



*Illustration 5: This is Ed Dumas's huge glider. A VERY impressive model. Ed is KCRC Safety Officer. Picture sent by Bill Leonard.*

He is using a winch launch system, and guiding it with a Spektrum DX-9 transmitter with five (5) flight modes programmed in. Rick Thompson also displayed an ARF Cessna 172 from Hobby King. Ed Dumas won the MoM prize.

#### **Meeting adjourned at 7:55pm.**

George Shacklett presented a talk on the society of Antique Modelers (SAM). He displayed two SAM airplanes: a Strato-Streak is a .19-sized R/C assist plane, and his Flamingo is a .60-size plane. All Doc's engines are ignition engines, except for one glow engine for a specific SAM class of competition for glow engines. There are plans to start a building project for willing Club members, similar to the RV-4 project of a couple of years ago.

**Respectfully submitted, Philip F. Spelt, Secretary**

### **The list of nominees for the 2016 offices are as follows;**

**FOR PRESIDENT--** Ralph Holder and ( Lucky )

**FOR VICE PRES--** Ralph Colon and Charles Wilson

**FOR Treasurer--** Joel Hebert and (Sam)

**FOR Secretary--** Rick Thompson and Ed Dumas

**FOR THE EXECUTIVE BOARD**

(VOTE FOR TWO )

Jeff Prosis

Randy Philipps

Phil Spelt

► Ed Dumas sent the following information on his good looking glider which won the Model of the Month competition at the November meeting.

" My sailplane is an Xplorer 2.5 with a 3.8 meter wingspan (149 inches!) whose structure is all carbon fiber. The overall weight is 1650 grams (58.2 ounces!) and the structure is incredibly strong. It comes from somewhere in Bulgaria and is currently considered one of the top competitive sailplanes in the world.

The building experience was interesting... I got a cardboard box with the fuselage, tail, and wing shells and no instructions whatsoever. I had to mount all the radio gear (6 servos!) and figure out how to do everything related to setting it up and programming the radio (5 flight modes!) with very little guidance. I referred to forums and got lots of advice from another flier (Bob Sulfridge) at House Mountain who has also built and flown Xplorer's. I currently have about 12 flights on it and it is truly one of the best flying RC sailplanes I've ever flown. The thermal performance is remarkable and I frequently find myself having to bring it down to change batteries more often than not.

We fly on Fridays at House Mountain when the weather is nice, typically from about 10:00 am until 3:00 pm and I'll extend an invite to anyone that wants to come out and watch. --Ed "■"



*Illustration 6: Randy Philipps sent this pic of Eddie Smith and his Chaos.*

► And in closing out 2015, I want to thank all the officers who served. We had a good year and the field looks better than it has in a long time.

Also I want to thank the membership. Especially those who worked to keep the field so great.

**Merry Christmas and a Happy New Year...Jim**