



KNOX COUNTY RADIO CONTROL

Newsletter

Knoxville TN Dec 2016 AMA #594

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What a wonderful season!! Once more I want to take the opportunity to wish each and every KCR C member and their families the very happiest Christmas ever. (And please remember the reason for the season).... Jim

THIS'N THAT

► I have mentioned several times that this great hobby has something for everybody. Some members push building, some members push flying, some just like the mechanical aspects of the hobby, some (like me) like writing about it. Etc. etc.

This issue of the NL has another couple of aspects put forth by KCR Cers Ray Bacon and Jerel Zarestky. First is Ray Bacon's great article about his efforts,.

“ Computers, Simulators, and Modeling

This article will consist of some of my thoughts about simulators, computers, and the role they play in Modeling. I also would like to present a modern approach to how I view Modeling from the eyes of someone who is new and younger to the hobby.

As you all know, my current interest is focused on helicopters and multi-rotors. My obsessive fascination with flying things that hover has been a positive

experience. The biggest benefit is that I now have an excuse to get away from computers and screens and phones and just go outside. Despite my intense flying style, I find it oddly relaxing believe it or not. I've always been a mentally active person and it's nice to put some of that thinking into something with physical results. Even though I try my best to unplug and go outside, I can't escape technology. That would be a little impractical in the big picture of everything. Technology plays an important part to my hobby. Without it, I would not have the positive success I have had in the year that I have started flying.

In my humble opinion, flying in a simulator is absolutely crucial to quickly and comfortably pilot a helicopter. These little bundles of mechanical wizardry will do anything you set your mind to and do everything you don't want them to do. This double edge sword of excitement will keep a dedicated pilot busy for years to come. That being said, unexpected impacts with the ground are bound to happen either through mechanical failure or pilot error. Ironically, to minimize real world damage, the best solution is to once again sit in front of a computer screen and bang your transmitter sticks until you get it right.

This brings up the key point in my thoughts for the newsletter. The advances in computerized radios flight controllers and tools are bi-products of trickle down technology from other fields. I hear stories from KCR C members about older planes that required crafting and balance to fly. Imperfections in your building were apparent and it was the builder's responsibility to fix it to achieve the right flight characteristics. Modern gyros now correct for slight imbalances and some new pilots entering into the hobby may not know the extensive history of modeling and how difficult it was in the beginning. Fast forward to present times and now there is a swarm of electronic gizmos that makes this hobby rewarding and daunting

at the same time. For example, I never thought I would bring my laptop to the field on a regular basis. My helicopter and quadcopter will not be able to fly without their electronics and its vital for me to have my laptop available should I encounter a problem. I've spent more time adjusting software parameters than I ever spent having to do field repairs. My quadcopter would never get off the ground without its flight controller coordinating 4 motors to keep it in the air. My helicopter would not be able to make the thousands of input corrections during flight to hold its heading and perform some of the stunts I ask of it. It's not uncommon at all to see me with my laptop up and running after a few flights for this reason. Computers keep my machines in the air and their software parameters are just as integral as their servos, screws, motors and blades.

When I looked into the history of RC Helicopters, I have realized how much they have grown and progressed after the year 2000. That still didn't stop RC pilots from performing very aggressive, blinding, and mind bending stunts. I think there is something wrong with my mind because I'm actually figuring out how some of those stunts are performed and have tried a few in the simulator. They usually end with a spectacular crash but I prefer to save those events for the virtual world. I remember this same time last year I went to my computer and tried to hover a helicopter for the first time. It was a mess. Crash after crash came quickly and in some of the most creative ways I can remember. I should have recorded some of my sessions so I could sit back and laugh at them today. As I got better and built my first flying machine, it was apparent my training in the sim drastically lowered the learning curve to flying in real life. That still has not prevented me from crashing but it has minimized my downtime.

One benefit to simulator practice is how they translate to the real world. For example, experiencing so many virtual impacts I have learned how to minimize real world damage in some situations. In the beginning my quadcopter crashes were quite violent and once a month, I would plant it in the ground breaking an arm and in my worst crash I lost a battery. Now my crashes are much more graceful and the most damage done is a broken propeller. I think part of this is due to lots of stick time and practice outside and inside the simulator. I know many do not like to talk about the crashes of the losses of a model that they spent hundreds of hours working on. Like I've said before, I have a weird mind and I embrace these events. I learn from them; I reflect

on them. I go back to the sim, work on my maneuver and then get the courage to go out and try again. To experience the connection between the screen and the sky is a rewarding experience. Recently I found some errors with my flying in real life and I re-evaluated my flights in the sim. Within a few weeks, I had gained a new sense of control and composure while flying at the field thanks to my practice at home. As I continue to practice in the sim, my mind always wonders to the next opportunity to fly. This creates a positive feedback loop that will keep me interested in this hobby for quite some time. When it all comes down to it, if you set reasonable goals for yourself, you will not go wrong with this hobby. I hope you enjoyed reading this article and happy flying.....Ray



A very well written expression of his efforts. Thank you, Ray, and I welcome any other thoughts you have..

All other members are invited to express their own thoughts on what they like about the hobby and why they spend so much time and effort (as well as expense) in it. I certainly would enjoy hearing about it. In 1938, I was in the fifth grade in Lenoir City school when I saw my first model airplane. A friend had built it and I've been hooked ever since. Maybe your efforts would inspire someone..

► Jerel Zarestky is a long time KCRCer that has done just about everything involving model airplanes from rubber powered up to giant scale RC. Now he has jumped a notch. Check out his latest endeavor...

“ **From R/C to 1:1 scale**

I've been flying R/C for a long time but it wasn't until fairly recently (2005) that I started flying 1:1 scale (full size) airplanes. That \$5 introductory flight I went on some time ago, really did its job. It only took about 35 years but who's counting. I'm now officially an airfield bum at KCRC as well

as OSI (Oliver Springs International). I didn't grow up living near an airport or come from an aviation family and so had no airport/airplane experience myself or in the family to draw from. It all seemed pretty intimidating to an Iowa farm boy. Maybe that's why it took 35 years. The thing is, I finally did it and I absolutely love it! I feel the R/C experience has been preparing me for this for those 35 years.



Illustration 1: Jerel and the Sport Cruiser at tie down in Ft. Collins.

In September I made my longest cross county flight to date, flying solo since my wife is not comfortable in small planes. I flew from OSI to Ft. Collins CO to visit my oldest daughter, Jill, and her husband who have both taken positions at Colorado State and moved there in July. The first day I flew to Harlan IA (HNR), about 615 mi and then a couple days later, on to Ft. Collins (FNL) another 446 mi. For the entire round trip I averaged a little over 110 mph. That speed together with traveling "as the crow flies", means you make pretty good time compared to driving. Having limited experience in long flights like this, I was a bit apprehensive about the trip. The use of Flight Following where you are on the Air Traffic Control system and tracked by radar, or just keeping the communication radio frequency tuned to the nearest airport gives you some constant reassurance. Finally, having two GPS's, Sirius XM satellite weather and an autopilot with attitude sensing and aircraft leveling capability, you start to feel downright comfortable. My plane is registered as a Special Light Sport which means that equipment I just mentioned is as affordable as R/C radio gear instead of 10 or more times that, as it is for FAA certificated aircraft (Cessna, Piper, etc.).

Each of those two days of flying had one fuel stop. The first was at Litchfield IL (3LF) just northeast of St. Louis. The airport has two runways, 09/27 (east-west) and 18/36 (north-south) and I radioed my intentions to land runway 09 after crossing mid field. Someone at the airport came back with, "negative on crossing mid field, we have modeling activity on runway 18/36!" "Do a right downwind 2 miles south for landing 09." I did that and after I taxied to the fuel pump and shut down the airport manager came over and explained that they were having a model turbine meet. When I told him I flew R/C too and was an AMA member, he offered to drive me down to the flight line to watch some of the activity. There were some very impressive turbine models there! In particular an SR-71 that was a 10 year and \$15K build project; after burner simulation, drag chute,

canopy opening, and perfect flight performance! The SR-71 pilots association thought so much of the model, they paid the builder and pilot to ship the plane and fly to California to demo it for the association's meeting.

Seeing some of the turbine meet was a nice little bonus on the trip out to Ft. Collins! It was really fun to visit my daughter AND have a flying adventure at the same time. All went well with the flights and the weather, and the airplane, a Czech Aeroworks Sport Cruiser, performed flawlessly. I'm prejudiced of course but I think it's a beautiful plane and it flies as good as it looks. I still have to pinch myself when I step back and look at it.

I probably won't do anymore long cross country flying until next spring since the Sport Cruiser annual is due in November and I'll soon start my next R/C airplane project; a Seagull Models Sport Cruiser. I have a color scheme all picked out and some PERFECT scale documentation!.....Jerel "

Wow!! Jerel is living the dream, isn't he. When I got out of the air force in 1949 I applied for flight school on the GI Bill but was turned down. Probably a good thing; I doubt I'd have made a good pilot anyhow, judging from my RC efforts...

► I made a plea recently for comments on club members ongoing activities. Didn't get a lot of answers so far but Raymond and Jerel were two that did. Also got an answer from our SAM contact L.A. Johnston, so I'll include that.

" Jim, I have kind of gone back to my first love. Flying wings! Recently resurrected several of my old ships, and have been flying them just for fun.

Next came my desire for a better thermal flying wing than the ones I have at the present time, so I am going to build a "flying plank" design that was done in 1978. It's called the Wind Lord, and is available as a partial kit from Skybench, so I ordered one of those to build. While at the SAM Champs this year I mentioned my plans to a group of fliers, and one of them told me he had one of the Wind Lord airplanes hanging on the wall of his shop, and he would sell it to me if I was interested. I told him I would stop by his shop on the way home and look at the airplane, and if I liked it, I would buy it from him, which I did. Its been good, because I am modifying the airplane to use an electric motor instead of just being a pure glider. One thing I don't like on the airplane is the location of the "spoilers". they are not really spoilers. they are just drag devices, and as such they put them on the lower surface of the wing. This location makes them very susceptible to damage on landing, particularly in grass. another thing is because at the time the airplane was designed, the servos were still large, and the designer put the servos in the fuselage. Since I am making the airplane electric powered, I need the room in the fuselage for batteries and motor, so I am moving the servos into the wings. I have had to come up with mounting provisions for those. I have the elevator servos done, but the spoiler servos are much more complicated because of the linkage being buried inside the wing. Still working on that problem.

The SAM 43 group (Tennessee) flew our ½ A

Texaco airplanes a couple of weeks ago. We were flying in what they call the “ ½ A Texaco Postal” event. Clubs all around the world fly their models during a “ flight window” that covers several weeks, then send their scores in to the club that won the event the previous year. That club then tallies all the scores, and determines the winner for the current year. Typical low key competition. This year, we didn’t do so good! The weather didn’t cooperate, and we had lousy scores. No one even came close to maxing. I think the high score for the day was around 9 min, and a max is 15 min. Got good engine runs, but there was just no lift to help. (at least not that we could find) but there is always next year!

Finally got two good flights with my new C ignition airplane. Looks like it will be a winner. Had to do quite a bit of reprogramming on the radio to cure a couple of problems with climb trim and transition from climb to glide, but it looks like I finally have things about right. If the wind conditions are right, I hope to fly it again today. This airplane is the one I told you about that had the rudder pushrod fail during flight!

If I am successful with the Wind Lord build I may try to build another SAM airplane, but as slow as I am at building, that probably won’t happen this winter. Hope to get a couple of the local builders to build Foxacoy airplanes, because they are so versatile. Normally you can fly them in three or four different events. but of course this new C ignition airplane can be flown in at least 2 different events also.

Any how, that is what I'm up toL.A. “...■

► I'm finishing up on the 1/2A Airborn I got from Bob Holman. I seem to have more and more trouble putting the small sticks together and covering but I have it about ready to fly. I found a power unit on Amazon to put on it. A 22mm brushless motor plus a 30amp ESC with 5amp BEC for ~\$17. Seems to run very well and should furnish a lot of power. I've mounted a 7-4 wood prop and I'll let you know how it all works.



Weight less battery is~13 oz.,. Wing area ~295 sq in., battery 3S 800mah lipo,....■

NOW AND THEN

I've been fooling around with model airplanes for almost eight decades and have seen many changes in models, electronics, construction and costs.

I was looking at a magazine from 1950 called “ Handbook for Model Builders “ that someone (I think John Heard) gave me a few years ago. An article in the magazine was a guide for getting started in model building. Here is an excerpt from it; “ almost 50 makes and sizes of little gas engines are on the market at prices from several dollars up to \$20 and even \$30 or more...” . It also gave a rundown on all the engines available..

The small engines that paved the way for today's wonders began to appear in the twenties and thirties. These were all ignition type engines. My dad, for Christmas in ~1941, gave me a GHQ (it may have been a Sky Chief) gas engine that was being advertized on the back of some magazines for \$5.95. It never hit a lick mainly because neither he nor I had the knowledge required for making it run. I sure wish I had it now! I have never owned an ignition engine since then.

The glow plug, invented by a fellow named Ray Arden in 1947, made a huge difference in engines. It took all of the aggravation out of setting the timing and making room for the necessary electric items as well as the weight of the battery and coil and condenser. You just put fuel in, cranked it up and flew. Maybe it wasn't all that simple but it seemed so..

Actually, flying gas powered models struggled in the beginning..The Registrar of the state of Massachusetts ruled that gas models were actually aircraft and, as such, had to be licensed and could only be flown by licensed pilots. That same year, Connecticut ruled that flying models could only be powered by rubber bands. Gas modelers banded together and petitioned for permission to fly them and after a great deal of political maneuvering gained the right to govern themselves. (This information was gleaned from some AMA archives of 1937 Model Airplane News magazine articles).

More changes later..

► Just saw the results of a SAM event called The Frank Ehling 1/2A Texaco Postal contest. It is held yearly. The way it works is that SAM chapters from all over the world are given a window of a couple weeks to choose a day and fly their 1/2A Texaco models for up to five times. They fly under SAM Texaco rules and take the best .two scores of up to three contestants and lump them together to make an aggregate score. In the contest just finished, entered were two chapters from the U.S.,two chapters from Italy, one each from Slovakia, Australia, Argentina, and the Czech Republic. One of the US chapters was our Tennessee Chapter 43 (we placed sixth), Winner was the US chapter from Germantown, Ohio, second place was the Australia chapter and third place was the Czech club.

Sounds like a lot of fun. We could take part in an event like that at KCRC, couldn't we? ...■

KCRC Meeting Minutes

November 15, 2016

President Ralph Colon called the meeting to order at 7:00 pm at Fellowship Church in Knoxville. There were 27 members in attendance. There were two new members. Gary Swigart is a new member from Arizona and Bill Matheny is a new member from Knoxville. Both were welcomed into the club by Ralph Colon.

Ralph Colon asked for corrections to the October meeting minutes, which there were none. The minutes were approved by unanimous voice vote.

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

Secretary Ed Dumas had nothing to report.

Safety officer Rick Thompson had nothing to report.

Field coordinator John Basalone reported that the field is dry and the refrigerator is closed for the winter.

Rick Thompson, Randy Philipps, and Ed Dumas presented the slate of officer candidates for next year.

The following slate of candidates was read and approved:

President: Rick Thompson, Dan Toombs

Vice President: Ed Dumas, Mike Catlin

Treasurer: Joel Hebert, "Lucky" Allemand

Secretary: Roger Kroodsma, Phil Spelt

Board Members: John Basalone, Brad Butzbach, Jeff Prosise

Phil Spelt will make reservations at the **Golden Oak Restaurant in Oak Ridge for the January banquet. It is scheduled for Tuesday, January 10, 2017.**

Rick Thompson and Joel Hebert will work on a way for those not able to attend the December meeting to vote for officers using absentee ballots.

Phil Spelt reported that the SPA Master's Pattern Contest will be held on the weekend of October 7 and 8, 2017 at KCRC. This is the only UT football-free weekend in October next year and was chosen so that contestants could have a reasonable chance of getting hotel rooms for the weekend. This was approved by unanimous voice vote.

Randy Philipps reported that Jeff Prosise will update website by Thanksgiving to include officer contact information and KCRC membership

application forms. Jerel Zarestky has also agreed to help Jeff, if necessary, to update the website content.

New Business:

A proposed budget by Joel Hebert was passed around for club members to look at.

Steve Jones reported that he has a source for cheap gravel. He will work with John Basalone when the time comes to acquire gravel for the driveway. The club unanimously approved to let Steve and John work out the details and price. The goal is to get gravel as cheap as possible.

Ralph Colon proposed that dues remain the same next year as this year.

Randy Philipps proposed that Joel send everyone in the club a list of current members. Randy also proposed that the current list of members be posted at the field so that everyone has access to the membership list in the event questions arise about a person's AMA and club membership status.

Ralph Colon voiced his support that everyone at the field should police each other to make sure that everyone who flies is a current member of both AMA and KCRC. This is in the club's best interest should an accident occur.

Rick Thompson will keep several copies of KCRC membership application forms with him and in the box at the field so that prospective members can join on the spot.

Model of the Month:

No MoM entries were officially entered this month. Ed Dumas presented a few pieces of his new Piper J-3 Cub project and explained the building process and some of the techniques he learned during its construction. The Cub is still several months, at best, from its first flight.

Crash of the Month:

No crashes were reported this month.

**The meeting was adjourned at 8:15 pm.
Respectfully submitted, Ed Dumas, KCRC Secretary.**

Editors note::: Please be sure to vote. The officers we've had for 2016 did an exceptional job and set an example for the incoming officers for 2017..Jim

*Have a Very Merry
Christmas and a Happy
New Years.....Jim*

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