



95th Street Group Newsletter

Volume V, Issue III

August
2017

The President's Corner

Greetings fellow RC flyers. It has been an interesting spring and summer at the field for sure. Lots of spring storms and rain and during mid-July, many days of excessive heat. As I am typing this the heat index is currently well over 100. As a result, I haven't been to the field for a while, but I am hoping the evenings will be cool enough to get some flying in soon. The good news is that the grass appears to be holding up well...guess that means the watering system is doing its job.

On July 8th, my spouse (Gay) and I went camping at lake Pomme De Terre for 10 days. For those of you not familiar with the area, the lake is in southwest Missouri at the confluence of Lindley Creek and the Pomme de Terre River. It's about 50 miles north of Springfield, MO.

Plug-n-Play

By: Ed Noulin

After watching one of our club members (Charlie S) put his new Flex Innovations little e-powered, QQ Extra 300 through its paces, my spouse decided that I too should have one.

This wasn't the first time that she'd tried cajoling me into spending some of our meager retirement

Shelby Locklear and his wife (Dorothy) were also there. Shelby and I took our Flyzone Tidewater seaplanes in anticipation to getting some flying done. We had a great camping spot near the water in the Hermitage area. This campground is on a peninsula so we had lots of choices of where to fly from.

After several days of windy conditions, it finally calmed down enough for us to do some flying. We put on several "airshows" over the course of several days...primarily about 10:00 AM whenever the winds were down.

We actually got pretty good at taking off together and then flying in formation. Shelby would take the lead, flying circuits over the lake, while I would attempt to follow as close as possible with-

savings on a new plane. Although her pleas generally fall on deaf ears, this time around she was successful. Yes...I do realize how lucky I am!

Now, just for the record, it's not that I'm against owning a new plane...it's more about knowing what "ownership" entails.

Let's face it: in addition



out hitting him. It was very tricky, indeed, but we pulled it off pretty well. Occasionally I would break off for some crazy aerobatics (imagine that) and then would catch back up with him.

In total, it was great fun and after each flight we would notice a few on-lookers on the shore behind us. I left my transmitter box open (a place for people to put tips), but it always came up empty! However, we did get lots of compliments.

During the last day of flying, Dorothy managed to film a flight and hope-

Continued on page 2

to assembling the thing, someone has to figure out how to properly transport it to and from the field along with where and how to hangar it; carve out time for fixing the inevitable dings, maintaining batteries, performing firmware updates to the flight control system, etc.

Continued on page 2

Inside this issue:

<i>Club Flight Rules</i>	3
<i>Crashing is NOT an Option</i>	4
<i>The Buzz Around the Field</i>	7
<i>Club Officers</i>	7

Special interest item:

**95th
Street
Annual
Picnic**

**Saturday
September 23rd
Bob Miller Field
De Soto, KS
5:00 PM**



The Presidents Corner (cont.)

The annual Club Picnic has been set for Saturday, September 23rd at the field

fully I'll have it posted on my YouTube channel by the time you read this.

I understand a couple of the club members (Charlie Swain & Richard Abels), are flying the Freewing Avanti Electric Jet. Although I haven't personally seen them flying yet, I have heard some great reports. I'm currently trying my best to resist buying one, but I may have to give in to temptation someday. From what I've heard, they both look and sound so

incredible in the air!

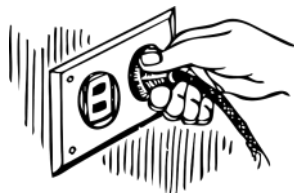
The annual Club Picnic has been set for **Saturday, September 23rd at the field**. The club will supply food and drinks. Please bring your favorite side dishes or dessert. Dinner will be at 5 o'clock. Of course, also bring a plane to fly!

There are two types of RC pilots: those that have crashed and those that are about to.



Jerry Brown (lft.) and Shelby Locklear (rt.) with their Flyzone Tidewater seaplanes.

Plug-n-Play (cont.)



While my spouse is blissfully enjoying the vision of someday seeing it in the air, I'm busy calculating just how much additional sleep I'll be losing!

In this particular case, the QQ Extra 300 arrived, double-boxed, on the doorstep during a hot summer day when I had nothing better to do. Right away, my thoughts over losing sleep began to wane.

Once stripped of its outer box, the graphics on the box that contained the plane were enough to make even an old die-hard like me want to jump right into the assembly process.

After briefly reviewing the owner's manual, I estimated that it shouldn't take more than a couple of hours and I asked the Mrs. to please push dinner back an hour or so. Eww...bad move!

The instruction book covering the assembly, testing and flying this little foamy is one of the best I've ever seen. It's very well written and contains a copious number of high-quality

photographs showing exactly what's involved with nearly every step along the way. Where I ran into a snag wasn't so much with the assembly; instead, it was with setting up the control system.

Oh sure, there was the typical mislabeling of several types of screws used in assembly; the wing tube shipped with my plane was about 0.5" too long and one of the wheel pants was distorted to the point that it couldn't be used. However, for me the real brain-twister was getting the flight stabilization system to play nicely with my receiver/transmitter combination. I think I went to bed without dinner that day!

The following day, I download and installed a computer application that allows setting the Aura programmable flight control system without wrestling with the transmitter.

This particular control system (Aura 8 AFCS) came



Flex Innovations QQ Extra 300 PNP.



Large control surfaces with lots of throw!

...for me, the real brain-twister was getting the flight stabilization system to play nicely with my receiver transmitter combination.

Continued on page 3



Plug-n-Play (cont.)



The Aura 8 AFCS
(automatic flight control
system)

with the kit. At first, I was skeptical of its quality or of some of the various enhancements it was offering. Now, however, I'm a believer!

With a flip of a switch on the transmitter, the plane can be flown in any of three different flight configurations.

Mode 1: Flight control system is OFF...you're on your own!

Mode 2: Flight control system is ON with moderate stabilization and comfortable flight characteristics.

Mode 3: Flight control system is ON and tuned for 3D...high rates, large % exponential, etc.

I've tried all three modes and find that each of them has pluses and minuses.

As for me, I like flying with Mode-2 enabled for landing and takeoff; Mode-3 for general flying and Mode-1 whenever I'm interested in checking the airplane's trim settings while in flight and at various speeds.

Now if I can just find a place to "hangar" this little beauty while it's not off tearing up the sky!!



Club Flight Rules

By: Rick Donley, Field
Marshal

The following are just to remind everyone that flight safety is paramount. Further, of course, common courtesy and consideration for your fellow pilots is very important for

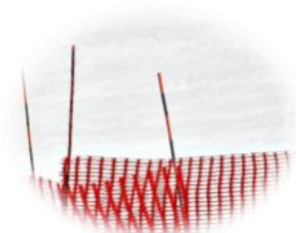
the fun and friendly operation of our field.

1.) The "line" of the safety fence extends to the end of the runway in both directions. There is **no flying** to the west of this line.

The exception to this rule is as follows: If you want to hover your Helicopter or Quad copter or practice 3-D flying you may do so in the area to the north or south of the parking lot. However, when practicing in these areas **and there are other pilots using the main flight zone** you should never fly your model from the N/S zones out into the main flight area. Also, as a safety measure, you should stand at least half way out from the corner of the parking lot to the west fence. (We have now installed "Pilot Stations.") You might further consider parking your vehicle behind where you will be standing. (If there is active flying on the main flight area you will be somewhat protected from an out of control model, that you don't see, coming at you from behind.)

2.) A 10' space to the east of the safety fence is a **"no fly" zone**.

3.) All **"high speed passes,"** below approximately 100' high, **should be made from over the center line of the runway and east.** (This applies to warbirds, aerobatic types, Jets, helicopters and yes even electrics. The west half of the runway should be used only as you might drift off of the centerline for landing or touch & go. "Low and slow" passes should also be kept fairly close to the centerline.



The "line" of the safety fence extends to the end of the runway in both directions. There is **no flying** to the west of this line.





Club Flight Rules (cont.)

4.) If two or more models are in the air you should always fly in "the pattern." (Reminder: "right hand" pattern is the model flying right to left over the runway and returning left to right well outside the east edge of the runway, ie. "right hand turns as you go around the oval pattern".) It is highly recommended that you ask someone to spot for you if multiple models are in the air. Please communicate your intentions to take off, land, touch and go to other pilots on the line.



Crashing is NOT an Option

Written by Don Apostolico
As seen in the November 2009 issue of Model Aviation.

Many pilots in our hobby say, "Sooner or later, all models crash." Is it me, or does that statement sound like a self-fulfilling prophecy?

Some can fly for years without damaging their airplanes, or they can experience electronic/mechanical failures without crashing. Others experience the same failures, and harm their models.

What's the difference?

This article will make you aware of the major issues that often result in needless crashes, so that you can take appropriate corrective measures to eliminate the problems that cause these accidents and endanger others. I will primarily address Giant Scale models, but many of the issues I will address apply to smaller airplanes and helicopters.

The keys to model longevity are:

- Carefully choosing the correct equipment.
- Setting up equipment properly.
- Learning to fly with proficiency.
- Regularly maintaining the aircraft.

If a pilot does the preceding, the chances of crashing are substantially reduced.

Come to think of it, that is the safety profile for full-scale aircraft. Why not apply some of the safety concepts that have allowed full-scale airplanes to fly and land safely for decades, even if they experience equipment failure?

The world is imperfect and there are occasional full-scale accidents, but they are the exception rather than the rule. In the aeromodeling world, crashing is often the rule rather than the exception. Many modelers are doomed to repeat the same mistakes that have caused countless others to destroy their airplanes, because they don't know what they don't know.

The full-scale industry learns from each crash, documents details, and disseminates the information so that the cause of the accident will not be repeated. In contrast, the modeling world often depends on well-meaning but sometimes misinformed opinions and Internet threads written by modelers and RC flight instructors who are trying to help but teach with incorrect information, because that's how they were taught. When faulty information is repeated often enough, it usually becomes fact because so many believe it.

These are not criticisms of the wonderful people who

try to help others, but observations of the basic problem. This lack of knowledge is a challenge in education.

Throughout many years, our industry has learned the clearly identifiable success and failure patterns that have been observed to consistently work or fail under a wide variety of operational conditions. Those who don't know the patterns are far more prone to crash airplanes than those who do know the successful setups.

Crashing or not crashing is also driven by attitudes. Some aeromodelers assume that their equipment will always work. That is an accident waiting to happen.

Another attitude is that all airplanes crash sooner or later. I have learned to assume the opposite. Some type of mechanical or electronic failure will eventually occur. When that happens, I have to have set up my model to enhance the chance of a safe landing. We learned long ago how to prepare our models so that safe landings can be made if various onboard components fail or malfunction.

Success and Failure Patterns

In the past 50 years, we have learned that there are no new reasons why aeromodelers crash airplanes. We can often finish their sentences when they talk about such an incident, because we have heard the same failure patterns numerous times.

If you deal with the public in your respective professional field, you probably know what I mean. You repeatedly hear the same

Continued on page 5





Crashing is NOT an Option (cont)

issues; therefore, you know what many people are about to ask or say.

My business is no different. By listening to thousands of hobby shop customers during the course of many years, I have learned what works and what doesn't. I wish you could be a fly on the wall at my store and hear people say the same things, such as:

"I should have listened."

"I won't do that again."

"I learned that one the hard way."

"That mistake cost me an airplane."

"I'd still have my model if I had set it up differently."

Since we ask the cause of the crash at the store, we have learned that aside from pilot error, the leading causes are battery failure, switch failure, and receiver failure, in that order. Conversely, some customers tell us that they had a specific failure and simply landed their aircraft.

The next question we ask is, "How did you have your model set up?" The success and failure patterns are clear.

After hearing numerous modelers tell us that they crashed their airplanes because the airborne batteries failed and hearing others say that they had battery failures but didn't crash because they installed a battery backup system, we quickly learned that such a setup would prevent a crash.

Therefore, we recommend battery-backup systems.

That's the kind of cause-and-effect relationship this article will cover. There is

no guesswork or opinions—only straight data obtained from many people throughout many years.

One bias that aeromodelers need to be aware of is that uninformed fliers often consider their experiences the norm, because they have not seen or experienced the problem. That is not empirical data; it is an uninformed opinion based on limited data input.

Setup configurations are not recommended or eliminated based on a few modelers' individual experiences. They are chosen or excluded based on a mass of aeromodelers' collective experience.

I suggest that we modelers, as do full-scale pilots, learn from others' misfortunes and avoid setups or procedures that cause the needless destruction of aircraft and endanger others when an airplane goes out of control and crashes. Safety is the priority.

The Challenge

The answers to the question why models crash have been identified, but the fix is more difficult. That is because the challenge involves a personal commitment to a number of issues.

We need to unlearn bad information or hand-me-down bad habits and educate ourselves, to overcome generations of misinformation that circulates throughout the modeling community. This education requires you to make an effective effort to obtain accurate information about performance profiles and equipment issues.

Just because your friend does it or says it's correct doesn't make it so. Is his technical opinion based on solid data, or is it an opinion with no factual data to back it up. Is his aircraft on borrowed time because he has "gotten away" with an unsafe setup and therefore considers it safe?

It's for you to judge, since it's your legal responsibility to safely set up a model.

If you hurt someone or damage someone's property, saying that your friend said it was okay and not knowing are unacceptable excuses in the law's eyes.

Sifting out bad information from aeromodelers who are trying to be helpful can be difficult. I recommend that you challenge the source of data by asking the next questions.

If a modeler tells you that your receiver will burn out because it can't take all the current flow from the high-powered digital servos, ask, "What is the receiver's current limitation and how much current flow does a properly set-up model draw?"

A pilot who can't answer that basic question after making the profound claim or answers that he saw it on an Internet thread is probably not a source I would trust. Compare the preceding answer to, "I called the JR service center and was told that the receiver was rated for 20-30 amps."

Which response are you going to trust? Are you going to trust your \$1,000-\$6,000 model to an uninformed opinion? Many do and have accidents as a result.

Just because your friend does it or says it's correct doesn't make it so.



Continued on page 6



Crashing is NOT an Option (cont)

The good news is that aeromodeller education can solve all of these issues.

Although there are preferences in equipment choice, as with the old Ford vs. Chevy debate, the systemic issues that cause airplanes to crash don't change.

Hand-Me-Down Information

Great flying skills and having been in the hobby for a long time do not necessarily mean that a flier possesses accurate information. The skilled pilot could be giving bad technical advice.

I often say that just because a person has brushed his or her teeth since childhood doesn't qualify that person to be a dentist. Because a person can hover a model doesn't mean that it is set up correctly. I've seen some excellent 3-D pilots who have unsafe setups.

Some bad hand-me-down information has been around for years. Several aeromodellers recommend that the rudder and ailerons be coupled so that the rudder moves in the same direction as the ailerons and allows the airplane to perform coordinated turns. You might have heard this from friends, read it described in magazine articles, or overheard it at the field.

The problem with this is that in any crosswind takeoff or landing, the rudder is moving in the wrong direction and the takeoff or landing becomes difficult or impossible to perform safely. Try that technique in a full-scale aircraft and you'll be calling the coroner.

An analogy is that if you want to turn your car to the left, you turn the wheel to the right. Ridiculous! But no more so than coupled ailerons with the rudder moving in the opposite direction than it should be traveling in a crosswind.

Tell a full-scale pilot that you take off in a crosswind by rolling in upwind aileron and upwind rudder to compensate for the crosswind. That pilot will look at you as if you came from another planet.

If you don't apply upwind aileron and downwind rudder in a crosswind, out-of-control takeoffs and landings are frequent. In some cases, a crash results. This is a pilot-skill issue.

Crosswind takeoffs and landings require upwind aileron and downwind rudder to maintain directional control of the aircraft; the opposite of a program coupling mix that some recommend and use. The result is often needless damage to a model or a crash caused by improper control input. When you see an airplane with this mix, you can tell that the pilot doesn't know what he doesn't know, or he wouldn't be using this hazardous setup.

This flier might have gotten away with that setup and not had an accident, but that doesn't make it right—just lucky. I don't want to depend on luck when it comes to not harming someone; I'll take knowledge every time. The first priority is to not hurt people or damage their property, and the second priority is to save the model.

Another pilot training issue is the well-meaning instructor who teaches a student to land the aircraft while controlling the descent rate with elevator rather than throttle. If the airplane is too high on final, many modelers have been trained to point the nose down to burn off altitude. Wrong!

When too high, the throttle should be retarded and the nose raised slightly to bleed

off airspeed. Once the speed is bled off, the model will drop like a stone. Then the throttle is used to regulate the descent rate.

If a pilot gets this relationship backward, the model will often zoom down the runway at high speed. The result is its running out of runway or being pinned to the ground with down-elevator and flipping over.

Sometimes you hear a pilot claim that an airplane floats and won't slow on landing. This lack of airspeed control is responsible for many landing accidents. If you have blown the approach, go around again and do it the right way.

Deficient pilot skills can be remedied by learning the limits of the flight envelope and practicing until you are proficient. An entire chapter in Gemstone Publications' third edition of *Proficient Flying*, available from Don's Hobby Shop, is devoted to this subject. Remember that elevator controls airspeed and throttle controls descent rate.

Now the hard work begins. And in some cases, you will incur expenses as you decide what degree of commitment and expenditure are appropriate. Crashing can be avoided, and in the next article, dealing with accident avoidance, I will address the major categories and issues that can prevent disasters.

If you commit to unlearning bad habits, undo bad setups, eliminate choke points, properly install the correct equipment, and learn the flight envelope to become a more proficient pilot, you will enjoy safe flying for years because you made the choice. Crashing is not an option.

Have fun and fly safely.

Don Apostolico



The Buzz Around the Field

Correction:

The photo on Page 7 in the May 2017 edition of the newsletter, showing those helping to relocate the wood-pile, mistakenly identified one of the participants as Craig Brown. It should have read "Craig Williams."



That's Charlie Swain about to ready his Freewing Avanti for flight. As Jerry Brown mentioned in his article, both Charlie and fellow club member Richard Abels are now proud owners of this speedy little foamy.

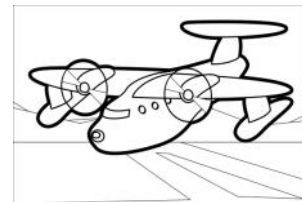
The Freewing Avanti S 80mm EDF Ultimate Sport Jet is supposedly the world's first officially licensed foam electric Avanti, courtesy of SebArt and its titular designer, Sebastian Silvestri. It's poised to thrill EDF pilots the world over with its sport jet styling and powerhouse performance. Yup...it's fast!



That's editor Ed getting in several flights on his PA Addiction. Just happens to be one of those days when he's not working on the newsletter!



No. It's not some kind of "mind control" device that's located on the power pole across from the field. Instead, it's to allow the power company to check the status of service in our area.



Send news articles to
Club Editors: Ed & Elaine Noulin at:
edsrcing@kc.rr.com

The 2017 Club Officers Are:



Pres.
J. Brown



Vice-Pres.
R. Abels



Sec.
M. McNeill



Treas.
B. Alexander



Field Marshal
R. Donley