Central Carolina Radio Modelers Club

On the Fly!

June 2017

Editor in Chief: Marc Wentnick

Club Meetings are held at the field the *2nd. Tuesday* of every month unless otherwise noted

Order food at 6:00
Meeting start at 7:00

Board meetings are *tentatively* held every 1st. Tuesday.
Time and location to be announced.
Please contact:
Tim Holland
336.508.5596
hollandt@triad.rr.com

Ronnie Garris
336.906.0565
rgarris@aol.com

IMAC

AUG. 19-20

CD: STEVE SIDES
ssides@triad.rr.com
336.944.2462

CUB DAY

JULY 16TH.

CD: ROBERT UNDERWOOD
paverman@underwoodpaving.com
336.885.2318

ELECTRIC FLY-IN

SEPT. 16TH.

CD: MARK WILLARD
gr8guy4u101@live.com
336.431.7601

FLOAT FLY

SEPT. 30TH.

CD: TOM BLACK
tblack8086@gmail.com
CLUB MEMBERS ONLY
336.543.5764

What a Day!

Open House

If you missed this year's Open House you've missed a show. With outstanding weather pilots took to the sky as the large crowd cheered them on. Aircraft of all types were represented with the giants earning the most applause.

Open House is geared to public awareness of our sport and the public came out in force. All the hard work and promotion paid off. This event could not of happened if it weren't for the small army of volunteers whom gave their time and dedication. There are too many to mention but we thank them all. *Special thanks go out to Nan Brinson and Ronnie Garris for coordinating the event.*

Go to
www.ccrcm.com
For more!

All types of fans came out!

I'm telling you I had it but the radio quit working!

Do I look like someone who cares?!

Did you see it? I thought I flew it that way!

They're at it again!

Mike Martin and his merry band of Gym pilots known as "*The Foul Line Flyers*" are back with another season of indoor flying! The action starts next Wednesday June 14th. at the Lewis Center in Greensboro.

Flying time starts at 7:00 pm. To 10:00 pm. If you haven't been out to fly you're missing something special. The folks there are great and helpful.

From UMX B-17's to big drones pilots bring it all.
Stop in and as always it's **FREE!**

Lewis center
3110 Forest Lawn Dr,
Greensboro, NC 27455
(336) 373-3330

Contact Mike
for more information
336.616.4766
Click here for Directions

Visit the new website!
www.ccrcm.com

72 MHz Radios

There are two general kinds of radios: 2.4 GHz modern radios, and the older 72 MHz radios. As a matter of fact, there are more kinds than that. 2.4 GHz equipment is subdivided into categories based on the specific type of coded signal used by the various manufacturers. These radios have the capability to switch from one channel to another within their designated frequency, thus avoiding interference when more than one person is flying. The older style single channel radios operate on 72 MHz for aircraft only, 75 MHz for cars and boats only, and 27 MHz for any kind of RC vehicle. There are also 50 and 53 MHz, reserved for those holding an amateur radio operator's license. In each of these single channel frequencies, the radios can use either an AM, FM, or PCM signal. Here's a good chart of all of the frequencies in use for RC in North America.

http://www.modelaircraft.org/events/frequencies.aspx

What are the differences, and why would you choose one over the other? This is the kind of question I always ask, because I've noticed that in a lot of cases the status quo or conventional wisdom do not necessarily reflect the best choice. We've all noticed that the majority of the RC community has switched over to 2.4 GHz, and there are some good reasons for this shift, but it's not a slam-dunk case one way or the other.

First, let's go through the pros and cons of the old technology.

Advantages

On the positive side, these frequencies are licensed by the government for use in controlling RC vehicles. The transmitters can legally broadcast at 1 watt, which provides a very respectable range. You can still control your plane as far as you can see it. The long waves of the 72 MHz band can bend around objects, so if you fly a plane behind a barn, a car, a tree, or even a low hill, you are still in control. The receiver has a long antenna, which can pick up a signal no matter the plane's location or position. The antenna can't be shadowed by the engine, and it is still effective in the vicinity of carbon fiber and metal objects. 72 MHz also has some disadvantages. That long, effective antenna has to be routed through the fuselage. Only one radio at a time can be operated per channel. There are 50 channels, but chances are that duplicates will arrive at the field at the same time. Even if you practice

good frequency control, some doofus can show up later, turn his radio on, and shoot your plane down. AM and FM signals are subject to jamming interference from outside sources, sometimes even from interference patterns created by combinations of other frequencies. And of course the most common problem experienced when using 72 MHz radios is damage to the receiver crystal caused by crashing. Back in the old days you would just do an engine-on test, and if you got a glitch you would install a new crystal. But it's hard to get new crystals nowadays.

72 GHz radios were offered to the public as the answer to the shortcomings of 72 MHz radios. No frequency control is required because your radio will simply switch itself to another channel to avoid interference from identical radios. If unmanageable interference is encountered, the controls will lock in "*safe mode*". And of course, as we've all heard many, many times, there is no long antenna to fool with. That pretty much sums up the advantages.

Disadvantages

There are a few major disadvantages. The short wavelength causes these radios to operate only in line of sight. In other words, if you fly behind an object and you can't see your plane, you're not controlling it. If your antenna gets shadowed by the engine, electric motor, battery pack or other metal object in the plane itself, it will lose signal. This risk is mitigated by using a receiver with more than one antenna, but that seems to negate the advantage of the tiny antenna if you ask me. When the receiver loses signal it goes into the aforementioned "*safe mode*" which means that it neutralizes the controls and you can't do anything until it reboots. If your plane was in a funny position, it will just keep going in that direction until it hits something. Another disadvantage is that there is no government license for RC use of the 2.4 GHz band, which means that these radios can broadcast at only one tenth of the power of a transmitter on the licensed bands. You probably don't want to fly your plane to the extent of your control radius because you'll lose sight of it, but the range technically is shorter than what you can get from 72 MHz.

The reason the new radios operate on 2.4 GHz is because of microwave ovens. When the microwave was first offered for sale, it was set up to operate on this frequency to avoid interference with other bands. Ovens don't put out tons of radio noise, but there is always some, so these frequencies have been left open as a Wild West no-man's land. 60 years later, everybody who wants to sell a radio control airplane, garage door opener, blue tooth, or other gadget, goes to the same unlicensed frequency. Will it reach a saturation point and cause an intolerable level of safe mode lockups? Time will tell.

So, what does all of this mean to you, the prospective radio user? Should you follow the herd to 2.4 GHz, or should you use an old 72 MHz radio like some kind of hipster? That all depends on your personal situation. A lot of flying clubs allow only 2.4 GHz nowadays, to eliminate any possibility of interference. Clubs used to have transmitter impounds, frequency flags, frequency boards with clothespins, or other such frequency control schemes to keep people from shooting each other down. It sure seems easier to just tell all of the members to leave their 72 MHz gear at home.

Back in the old days different flying sites sometimes had a channel or two that were known to be glitchy, and everybody avoided those channels at those specific sites. Just make sure nobody is on your channel at the same time.

People think it would be fun to be a bird because you could fly.

But they forget the negative side, which is the preening.

We all wish Mark good luck with his *Long EZ*

It's been a challenge!

WHAT'S HOT!

E-flite Convergence VTOL 650mm (25.6")

If you haven't heard or seen this flier you will. This plane is a cross between a jet and a helicopter. It has been taking flying fields by storm! The plane takes-off like a helicopter and transitions into a jet. The change is painless and very controllable.

I have seen it fly. Tom Conklin had his out on workday and wowed us. The plane is extremely stable showing off the balancing powers of the factory installed gyros. She runs on a 11.1 3-cell 2200-3000 mAH LIPo battery with flight times at approx 8 minutes.
The aircraft is built sturdy using the Z-foam technology and has places for a camera.

The plane can be purchased at any leading retailers.
PNP- $219.99
BNF- $249.99

John John enjoying the day!

What is this?

Can you identify this plane?

From the movie

www.ccrcm.com

LAST ONE OUT LOCKS THE GATE!

Good News!

Okay you're just starting out with your trainer. As you fly you notice all these cool war-birds. And you think,

"I can't wait to fly one!"

How about a P-51 trainer that is designed for the beginner pilot? Well **Hanger 9** has answered your prayers!

Key Features Exclusive SAFE technology delivers flight envelope protection Panic Recovery mode switch quickly returns the model to level flight The club-level beginner airplane that looks cool Easy-to-use Evolution 8cc gas/petrol engine provides reliable, low-cost operation Ready to bind with your transmitter with Spektrum DSM2/DSMX technology

For more information

CLICK HERE

"Only one carry on."

Did you know?

At any moment, somewhere between 500,000 and a million people are flying in airplanes.

In 2001, Triumph International launched the Frequent Flyer's Bra as the metal in conventional brassieres had been setting off airport detectors.

The word "air-port" dates back to the 1780s when it meant a ventilation porthole in a ship.

The first scheduled commercial airline flight was on January 1, 1914 across Florida Bay from St. Petersburg to Tampa.

GIANTS

Size does matter!