



Newsletter of The River Valley Flyers

Club #948

December 2018

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From the President and Editor: It appears that winter arrived early this year, and plans on staying. So, this ends my outdoor flying for the 2018 season. Now is the time of year to go through your aircraft to inspect (and winterize for those flying gas or glow) your fleet of aircraft. Even if you do plan on trying a day of flying outside yet this year, it is still good advice. It is amazing how many things you may find that could be a disaster in the making, and now is a good time to look at all of those issues.

Now that it's the winter indoor flying season for me, it is time to get my indoor flyers back in the air. I had to replace the cyclic servos in my indoor micro helicopter because the old ones started working intermittently. The new servos are a great improvement on the stability of the machine, as they give the helicopter a more locked in feel. That stability also created some porpoising issues with it in forward flight that needed correction. After some trial and error adjusting the different gain values in the flight controller, most of that issue has gone away. It is interesting how the gain settings work, and how to get into the controller to adjust them. When I finally get them to where they feel correct, I think I will end up much improved flying helicopter.

Indoor flying continues on most Friday evenings this fall and winter season, please see the attached schedule in this newsletter. We hope you will come down and join us on Friday evenings this indoor season. At the November club meeting, we discussed our club meeting schedule for the 2019 season and some possible changes. With the winter driving season here, and the distance that some members have to drive to get there, we will be having the winter club meetings every other month instead of monthly starting in January of 2019. This means that we will hold a December meeting (on December 5th of 2018) and then the next meeting will not be scheduled until February of 2019, thus eliminating a January meeting next year. I hope this system can work out smoothly for 2019. As we head into December and toward the holidays this year, I would like to take the time to wish everyone a Merry Christmas and a Happy New Year. That is about all I have this month, I hope to see you at the December meeting or at the Indoor Flying on Friday evenings.

Don

2019 RVF Club Membership Renewal

It's time to be thinking about renewing your club membership for 2019. Club membership runs from January 1st through December 31st of each year, and getting your renewal in early will avoid a lapse in membership. Memberships may be renewed at our monthly meetings or mailed to our club treasurer. See attached form in this newsletter.

From Our Safety Officer

Hello fellow flyers,

If you are fairly new to the RC modeling scene, you might not have any idea what a 72 MHz RC system is. More experienced modelers will know exactly what they are and have probably owned several.

The 72 MHz digital proportional RC systems have been around since the 1960s. Evolution of this equipment provided us with first Amplitude Modulation (AM) sets, then Frequency Modulation (FM), and then the latest versions, which were Pulse Code Modulation (PCM).

This progression gave us a more reliable link between the transmitter and receiver and provided fail-safe operation in the PCM systems. The big drawback with these systems was that they operated on a specific frequency channel within the 72 MHz band, and it was vital that only one system be operating at any given time on each channel.

To ensure safe operation, a system of frequency pins was developed. You were issued a pin when you wanted to operate your transmitter. Each club had a similar system at its flying site. Before turning on your transmitter, you had to get the frequency pin from the frequency board at the flying site. You usually shared the pin with others and kept track of those at the field who were flying on the same frequency as your own, to ensure that you did not cause interference and "shoot" the other pilot's aircraft down by mistake.

The FCC gave us 72.000-73.000 MHz as our area for operations of RC model airplane equipment. In the late 1980s, AMA worked with the FCC to obtain permission to expand the number of usable channels we enjoyed from 7 to 60. The FCC did not give us any more frequency bandwidth, but allowed

manufacturers to make “narrow-band” equipment so that it could safely operate more frequencies in the same amount of bandwidth.

We now have frequencies starting at 72.010 MHz, and then spaced 20 KHz away is our next frequency, 72.030 MHz. This spacing continues throughout the band to give us Channel 11 (72.010 MHz) through Channel 60 (72.990 MHz).

Having more channels allowed more pilots to fly at the same time with less worry of interference. These additional channels fueled a growth in RC. Along with the new frequencies, improvements in encoder design led to many enhancements in transmitter design.

New features were added including programmable mixing, preprogrammed mixing, and exponential. The latest designs included microprocessor-based transmitters that were capable of memorizing complete model settings, for the first time allowing a transmitter to operate more than one aircraft. Multimodel memory exploded onto the scene and transformed sport radios into sophisticated, affordable transmitters with new features finally made available to the masses.

So, what has changed? As far as 72 MHz RC operations today, nothing has changed since the 1991 narrow banding. The 72 MHz equipment that meets these requirements is still legal to operate today and will be legal for the foreseeable future. The FCC regulates radio frequencies in the US and we work closely with them on anything that would change the frequencies we are allowed to use. At this time, nothing is in the works that would change the current rules.

With the introduction of 2.4 GHz spread spectrum equipment, the need for frequency pins has nearly disappeared. Now you can go to the flying field and not worry about

interference from other RC pilots if you are flying on 2.4 GHz. As soon as this technology was proven, many modelers began trading their 72 MHz gear for spread spectrum gear and demand for 72 MHz systems plummeted.

Manufacturers of RC radio equipment have determined that sales of 72 MHz RC equipment have slowed to the point that it is no longer profitable to continue to offer it to retail consumers. They have discontinued manufacturing this equipment, and are pointing to 2.4 GHz RC equipment in its place.

Obviously, 2.4 GHz equipment cannot be interfered with by other users of RC model aircraft systems (as designated by FCC rules) so 2.4 GHz RC equipment is deemed inherently safer and more current. Some even refer to 72 MHz RC equipment as obsolete and unsafe.

Nothing could be further from the truth! It could be argued that 72 MHz RC equipment is safer today because so many fliers are using 2.4 GHz RC equipment making the 72 MHz band less crowded, so there is less possibility of interference from other RC model fliers.

With many good used RC radio systems for sale, many modelers purchase this gear to save money and to obtain a system with more features than what they currently own. This makes good economic sense! Although a company may not be making new equipment on 72 MHz, there is a large amount of it available, and good bargain hunters can save money while obtaining a quality RC system.

The AMA has not changed its stance on 72 MHz equipment, and will continue to work with the FCC to keep 72 MHz, as well as the other frequencies, available to modelers. Unless a particular event or club decides to restrict operations to certain frequencies, 72

MHz (as well as 27 MHz, 50 MHz, 53 MHz, and 75 MHz) will continue to be available to modelers in the US.

If you are looking for a good deal on RC equipment, consider purchasing used 72 MHz equipment. Plenty of it is available at swap meets, flea markets, and online. Many club members still have good gear that they no longer use.

With so many modelers operating on 2.4 GHz spread spectrum, 72 MHz is a good bet today. Most of the time you will find that you are the only one at the field on 72 MHz, so you have your own private frequency. Isn't that just as good?

72 MHz is alive and well, but you probably won't find it at your favorite hobby dealer.

My thoughts: long live the frequency board!

Y'all fly safe now,
Larry Chamberlin
Safety Officer
RVFRC

Indoor Flying 2018-2019

Indoor flying continues at the East Junior High gym in Wisconsin Rapids. Flying will be on these dates listed below, from 7PM - 10:30PM. You must be a member of the AMA, but not a member of RVF to use the gym. The cost to fly will be \$5.00 per pilot, or \$10.00 per flying family. Rules are the same as in previous years. Here are the remaining dates for this season:

Dec. 7, 14, 21, 2018
Jan. 11, 18, 25, 2019
Feb. 1, 8, 22, 2019
March. 1, 8, 15, 22, 2019
April. 4, 12, 2019

Roger Denne'e
RVF Indoor Flying Coordinator

Upcoming Area Events

January 2019

01/20/2019—Green Bay Wisconsin. (E) Green Bay Model Airplane Swap Meet: Site: 3002 Bay Settlement Rd. Holy Cross Parish, Steve Doubek CD 920-606-3248 email stevedoubek@yahoo.com Visit www.gbmac.com Swap meet and auction at Holy Cross School Gym in Green Bay WI. Doors open @ 8:00 a.m. and will run until 11:30 a.m. \$5 admission, 12 and under free. No table fees, but donations are appreciated. Nice raffle prizes. Contact Steve for more info: Sponsors, Green Bay Model Airplane Club.

01/27/2019---West Bend WI. (E) West Bend WI. RC Auction and Swap Site: 3000 Pleasant Valley RD. Washington County Fair Park. Scott D Jones CD. 414—446-5809 Email onehobby@happyhobby.com Location: 3000 Pleasant Valley Rd. Washington County Fair Park Pavillion. 9 a.m.-2 p.m. 45 entry, all tables \$20 eaCH. For reservations call Laurie @ 414-315-7229. Sponsor: Milwaukee Association of RC Clubs.

River Valley Flyers December Meeting Notice:

When: Wednesday December 5th at 6:30 P.M.

**Where:
At Hardees in 1821 Eighth Street in Wisconsin Rapids.**

River Valley Flyers Model Aircraft Club

2019 Membership Form

The "River Valley Flyers" are a model aircraft flying group interested in all aspects of Model Aviation and are located in Central Wisconsin. We are a chartered Academy of Model Aeronautics [AMA] club. All club members must also be AMA Members. We maintain a flying site in southern Portage County in the Township of Grant in the Central Wisconsin area.

Membership Categories and Dues

Full Adult Membership....\$40

Age eighteen years and older by January 1st of the year of application. Includes voting rights and club field usage rights.

Family/Group Membership....\$45

All members covered by a Family/Group Membership must have a direct spouse or offspring relationship, Father-Son, Husband –Wife and or Junior Member. Includes voting rights [except for junior members] and club field usage rights.

Junior Membership....\$15

Under age eighteen years old by January 1st of year of application. All junior members need to be sponsored by a Full Adult Member even though they are not related by an offspring relationship. Includes field usage rights but no voting rights.

Guest Membership:....\$20 For someone who belongs to another local club but wishes to access our field for flying as well. Includes field usage rights but no voting rights. Must send a copy of current AMA and Local Club Membership Cards with application.

MEMBERSHIP APPLICATION (PLEASE PRINT CLEARLY)

Please bring completed application form below with proof of AMA to RVF meeting or mail to:

Bob O'Connor 2220 Lovewood Drive Wisconsin Rapids Wisconsin 54494

Make checks payable to **River Valley Flyers** (Only Cash or Check Accepted)

Name: _____

Address: _____

City: _____ Zip: _____

Phone: _____ E-Mail _____

AMA# _____ Membership Category: _____

Dues Enclosed: _____ (Cash or Check Only)