

**SKY CORRAL R/C CLUB**  
EST. 1970



NEXT MEETING-November 1st.

AMA 946 GOLD LEADER CLUB  
Pueblo, Colorado  
1970-2018

# THE BULLPEN

**NEWSLETTER OF THE SKY  
CORRAL RC CLUB**

CLUB OFFICERS

ROB PIKE—PRESIDENT

MARK SIEMEN-VICE PRESIDENT

LARRY OSBORN-SECRETARY/TRES.

JOHN BOREN-SAFETY OFFICER

## MINUTES OF THE MEETING OF October 2018

### MINUTES READ AND APPROVED

### OLD BUSINESS

### Discussion of field runway maintenance

BRIAN C. AND LARRY O. ATTENDED A MEETING OF THE HONOR FARM PLANNING GROUP. THE CIY PARKS DEPT DOES NOT HAVE FUNDS FOR REPAIR OR REPLACEMENT OF OUR RUNWAYS. BRIAN IS WORKING WITH THE CIY GRANT RESEARCH PERSON WHO IS SEEING IF THERE ARE ANY RECREATION GRANTS THAT THEY MIGHT GET THE FUNDS FROM. AT THIS TIME THE JOE MARTINEZ ROAD EXTENSION IS STILL IN THE WORKS BY THE COUNTY WHO IS WORKING ON FUNDING. THE CITY RECONFIRMED THEIR COMITMENT TO MAKE REPLACEMENT OF OUR FIELD BY THE COUNTY A PART OF ANY AGREEMENT.

# Guillow's

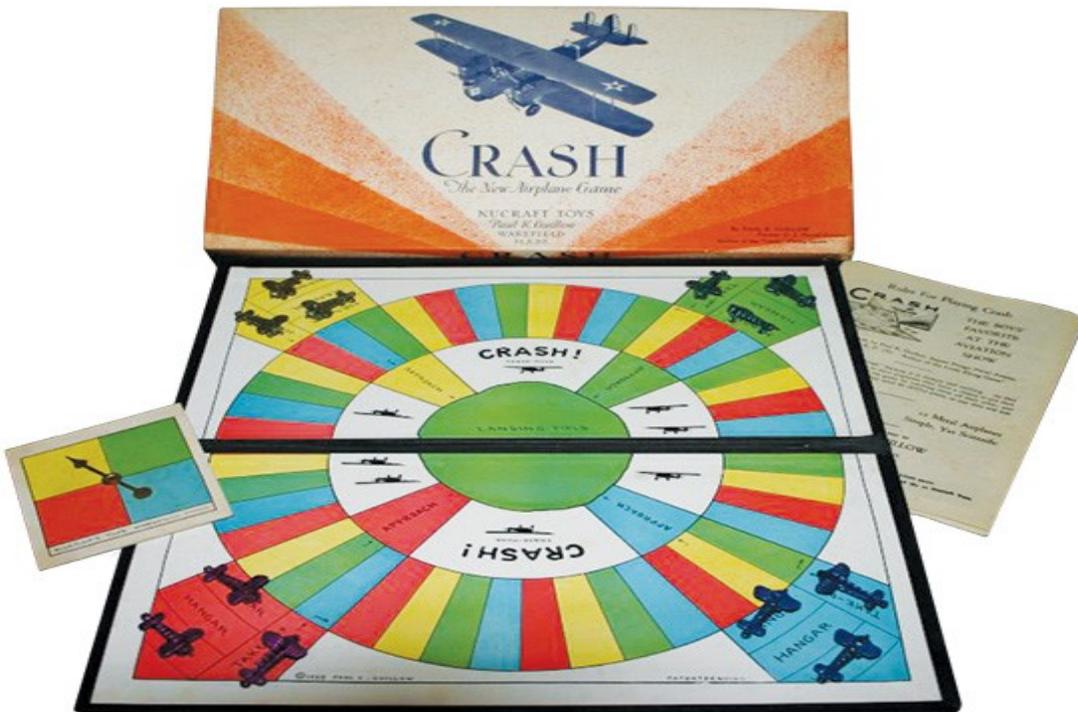
A name synonymous with stick-and-tissue model aircraft for generations, the Paul K. Guillow company in Wakefield, Massachusetts, is celebrating 90 years in business in 2016. The company was originally founded by Paul Guillow (rhymes with willow) in 1926 as NuCraft Toys.

Born in 1893, Paul Guillow was a World War I naval veteran who brought home from Europe an abiding love for the burgeoning technology of aviation. Paul founded his aviation-themed toy business at the perfect time: one year before Charles Lindbergh ignited a worldwide craze following his 1927 transatlantic solo flight. Paul seized on this event by introducing his successful card game, The Lindy Flying Game.

NuCraft's first model airplane product was a line of small balsa static models of combat aircraft flown in the war. Another shift followed when Paul recognized a high demand for flying models, and expanded the line to Free Flight (FF) rubber-powered scale and glider kits.

In 1933, Paul moved the expanding company from his barn into the present headquarters on Salem Street in Wakefield, a hamlet approximately 12 miles outside of Boston.

In the 1940s, Paul—by then an expert on model aircraft—wrote several books, including Tom's Book of Flying Models and Flying Models: How to Build Them. Paul died in 1951, but the company continued to thrive under the leadership of his widow, Gertrude. For 35 years Guillow's was family-owned and operated, until it was finally transferred to an Employee Stock Ownership Plan, with annual revenues between \$3 and \$5 million as of 2010.



The board game, *Crash The New Airplane Game*, was released by NuCraft Toys in 1928. NuCraft Toys ended in 1933 when the company name was changed to Paul K. Guillow, Inc.

Paul Guillow was a naval veteran of World War I who brought home from Europe an abiding love for the burgeoning technology of aviation. Photo courtesy of Guillow's.

Most Guillow's kits are old-fashioned balsa and tissue, just as they were 80 years ago. Plastic propellers, vacuumed-formed spinners, and molded canopies were upgrades in the 1960s, but since then, little has changed. Most kits are scale models in the 16- to 35-inch wingspan range and most are designed for FF.

Guillow's is proud to use plantation-grown balsa imported directly from Ecuador, and the company is quick to note that the harvesting process is kind to the rain forest. It is also proud to state that all of its products (except for a small foam helicopter toy) are made in Wakefield.

By the mid-1990s, Guillow's was gobbling up its competition, acquiring Tiger, Inc. in Los Angeles and

Comet of Chicago. Tiger was a leader in promotional flying toys imprinted with company names and graphics; Comet was a direct competitor in balsa kits and gliders.

Guillow's is still on Salem Street in Wakefield. The factory complex has gradually expanded, but today continues to use many of its original Depression-era tools. The recent upgrade of a laser cutter has brought Guillow's kits into the 21st century. Now the balsa parts are accurate and true-fitting, making the kits easier to build.



**In 1933, Paul Guillow moved his expanding company from his barn into its present headquarters on Salem Street in Wakefield MA, a hamlet roughly 12 miles outside of Boston. Photo courtesy of Guillow's.**

As every model builder knows, balsa airplane models are fragile. For some they are too fragile—thus, they fail to deliver on expectations. This infamous 1959 letter by disgruntled customer Robert Higgins still hangs in Guillow's Wakefield office:

“I have bought one of your fifty cent planes, and it broke as soon as it left the ground. If you don't make your rotten fifty cent plane better, my friends & I won't buy your planes anymore. I think you have the lousiest planes from the lousiest wood (please take this as an insult): drop dead.”

Maybe poor Robert was ham-handed, or didn't have a good mentor, or both. Now, in 2016, Guillow's has 69 stick-and-tissue kits in its catalog and several dozen slide-together flying toys. Many of the designs are unchanged from 50-plus years ago, save for laser-cutting upgrades and other small tweaks.

A few surprises have been revealed in the 2016 catalog, including some new designs capable of contest-winning performance, and some static models (even jets) that offer jaw-dropping realism.

Article courtesy of Model Aviation magazine

# 72mhz Radios

*Written by Tony Stillman*

*In the Air*

*Column*

*As seen in the September 2014 issue of Model Aviation.*

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.

—*Tony Stillman*

*Flying Site Assistance Coordinator*

