



What Does It Take to Get Into Flying RC Aircraft?

By: Wally Szempruch, Events Director LCRCC

Preface:

On the surface, this seems to be a simple question that is easy to answer. In reality it's difficult to answer because it depends on a lot of factors, most notably, your level of interest and your technical skill level. From there it becomes a battle between how much time and money you are willing to dedicate. Think of it like learning to drive a car. You didn't just go out and buy a car, jump into it and drive off on a road trip, go to the store, or commute to work barely knowing where the ignition, accelerator and brake were located, did you? I think not. You took your time to reflect on need, purpose, finances and your abilities and then evaluated what YOU must do to successfully learn to drive. Doing all things successfully literally put you on the "road." Now, you probably take it for granted and say "It was no big deal."

Learning RC is not that much different. However, you don't have to jump into this hobby full Monty. You can ease into while determining if it is right for you. After all, it is a hobby. It's a way to spend your disposable time and money in such a way that it enriches your life. It's like having a fun job that motivates you to do better, to challenge you to learn something above and beyond what you currently know. In the end, you will know more than most about electronics, craftsmanship, modeling, aerodynamics, batteries, software, adhesives, material science, and so much more.

After being involved in RC for over 50 years, while experiencing all aspects of life, I can honestly tell you that RC flying and modeling has enriched my life significantly. And yes, I still had time for a career, family, community, other hobbies and social activities. I've always been involved in "technology" in one form or another. I also feel that building things is in my DNA. I've met and have known men and women from all walks of life who cultivated their passion for RC and modeling. Doctors, lawyers, plumbers, pilots, businessmen, young adults, children from 10 to well into their 80's participate in this hobby. There were/are notable celebrities that have touched upon RC and modeling. Some of them have spring-boarded into major careers because of it. Jimmy Stewart, Henry Fonda, astronaut Robert "Hoot" Gibson, Roy Orbison, Burt Rutan, Paul Harvey, Tyler Perry to name a few.

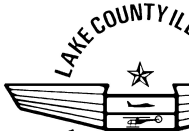
What about you? If want to know more about RC, talk to someone in an RC club. Talk to us. Lake County RC Club (LCRCC) is just one club in Lake County that can give you some answers. Do you want to find out more? Wiki has a good overview of RC. (See the link below.)

Here's my perspective, an overview and as a member of LCRCC.

Is it Safe?

Probably the most obvious hazard is the propeller. No kidding, it's a buzz saw. It can lacerate and slice off a finger in a heartbeat if you are careless. This is what makes the hobby "age appropriate" or creates the need for "parental guidance."

Second, only to that is the size and weight of the UAS (Unmanned Aircraft System). I'm aware of only three fatalities in RC. There may be more. Two incidents involved carelessness and injury could have been avoided. One was a fluke, a loss of control. But when you consider sports, or any other outdoor activity, if you follow our common sense safety rules and guidelines, the odds of injury are statistically



thousands of times safer than most other activities. But keep in mind. These flying machines can injure or kill. That's why they are not "Toys" and must be taken seriously and be respected.

Next, to energize your aircraft you will be using fuel, either gasoline or "Nitro" fuels or "LiPo" batteries to power the engines. Each has known fire hazards which require safe handling.

Lastly, you need to know that you NEVER, NEVER mix up with full size aircraft. You can see them long before they see you. Besides, the government through the FAA (Federal Aviation Administration) regulates our Class G airspace. Throughout the history of aero modeling the AMA, (Academy of Model Aeronautics) founded in 1936, has no knowledge of any plane crashes caused by model airplanes. Because the technology has evolved, and there has been a proliferation of the sale and ownership of UAS's, the FAA has proposed and the Congress has enacted laws concerning UAS's that require the use of "Remote ID's" which govern the safe flying of RC aircraft. More about that later.

How Much Does it Cost?

Zero to thousands of dollars spread over time. There are cost effective ways to get into RC for the budget minded. Many of us have raised families, who always came first, so you seem to learn quickly the meaning of being frugal. I've always looked at it like playing golf. You try it out at a driving range. You rent, borrow or eventually buy a set of golf clubs and then go to a public or private golf course. How much money you spend depends on you. LCRCC has an active program and the means to allow you "try it out" in a safe manner. Volunteers in both the flying and building of aircraft are readily available. The advice is free. You just need to reach out and dedicate some time. The rest is up to you.

IF and when you decide to jump in, there are some administrative costs above and beyond the costs of transmitter, engine, aircraft or supplies that you might buy.

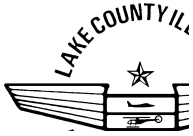
To fly anywhere, and IF your aircraft is over .55 lbs. (8.8 oz.) you must register with the FAA. The cost is \$5.00 / 3 years. You will need an electronic Remote ID for your aircraft. The cost started out high but it is coming down with competition, expect \$20-\$50. But please note FAA rules say you just can't fly anywhere. More on this later

To fly at a public field, like the LCFPD (Lake County Forest Preserve District) you need a permit to fly. The cost is \$40 resident, \$80 non-resident. Being a member of the AMA is mandated. The cost is \$15 under 19 years, \$85 to 65 years and \$75 over 65 years.

To fly at a private club, the costs vary. Most require you to be a member (sometimes limited) and involves an initiation fee, an annual fee and/or possible assessments. The annual costs can range from \$20-\$150 plus initiation fees and volunteer work duties.

To fly at the LCRCC field, since it was formed and is maintained in cooperation with the LCFPD there are some special considerations. Most notable, our field is now a registered FRIA site. **No Remote ID is required.**

At a minimum, the permit cost and AMA membership fee applies here. Since we (LCRCC) incur costs for field maintenance and since we offer the means to help you and provide the camaraderie of our social events, we ask that you join our club. Our initiation fee is \$20, 18 years or student \$30, annual fee is \$85. (See the link to our website below.) Volunteering for any of the activities is welcomed.



How long does it take to learn to fly?

You can't fly these aircraft by yourself till you really learn instinctively left from right going away from you or coming towards you. If you try, even if you are very gifted, the likelihood of crashing is extremely high. Full size aircraft pilots will crash. You'll end up spending a lot of money and become disappointed very quickly. That's why, as a club, we offer flight instruction. We don't want you to go through some of the pain that we have. One of my best friends and a neighbor at the time built a senior Telemaster and after a few flights with an instructor he flew pretty well with this very forgiving type of plane. He just did "touch N' goes" for about 3 months. In this short period, less than one flying season, he became an accomplished safe RC Pilot. It's really based on your own hand eye coordination skills. I can tell you that kids, with all their video game experience, really pick this up fast. Regardless, don't expect to fly that scale war bird or that pattern plane or that biplane you think would be very cool the first year.

Is RC Flying Regulated?

There is good news and bad news here. Here's the bad news. What follows is mandatory. As mentioned earlier, the growth of the industry and the technology has created a double edge sword in our hobby. The electronics have become so much better, the availability of aircraft and choices are so much better that the concern for a mishap mixing up with full size aircraft has become huge. Literally, kids were chasing airliners with quadcopters to get close up pictures and didn't understand the harm they could cause. Think of Sully and the bird strikes that brought his plane down. Think about a DJI drone being ingested by turbine engine.

Rule 14 Part 107 enacted by Congress gave all RC flyers guidelines and rules to follow. The penalties for not following these rules are huge. Thousands of dollars in fines are possible. Civil penalties up to \$27,500 and criminal fines up to \$250,000 with imprisonment up to 3 years can apply. The initial rules offered in the Federal Register in 2019 were horrific to anyone in the hobby for over 50 years. They almost shut us down and were very impractical. A backlash followed with over 150,000 comments and many letters to our legislators. Fortunately, more common sense rules resulted which will go into effect on March 16 of 2024. (Postponed from Sept 16 of 2023).

The cornerstones of these rules are summarized as follows:

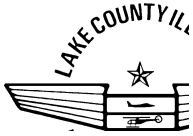
Your UAS, if over .55 lbs., must transmit a **Remote ID**. Think of it as a unique identifying transponder that declares an electronic signature tied to YOU.

You are exempted from needing the Remote ID technology if you fly at a FRIA site (FAA Recognized Identification Area) **Our LCRCC field is a registered FRIA site.**

You must take and pass the TRUST test. It's an online test that demonstrates your knowledge to the FAA concerning how to safely fly RC.

You must register at least one UAS under your name and pay the \$5.00 3/yr. fee. You are given a registration number which must be visibly displayed on each UAS.

You are flying for sport under the auspices of a community based organization, the AMA, and not for commercial use, i.e. Part 61, and not over people or crowds or near airports or full size airplanes following the guidelines of part 107.



So you ask, where's the good news? If you fly at a FRIA site, it is practically the same as you or all the old timers have done for the past 50 years. The major differences are UAS registration fees, Pilot Certification and the need to label your plane with your unique FAA number.

Why Do You Fly RC?

Like I said, building things is in my DNA. I grew up loving airplanes. I dreamed of flying as a kid. I built my first Comet balsa stick plane when I was 10 years old, then a Guillow Japanese Zero. I grew up in a time when astronauts were heroes and NASA worked to put men on the moon. Glasses and other factors kept me from flying full size aircraft. I did manage to fly in small airplanes and even a glider. What I can say is that while you are flying RC planes, you put in a lot of empathy, and a lot of yourself in that small plane. The thrill of greasing that landing is difficult to describe. It's as if you are in it. You just never get tired of it. When you find a hobby that is that much fun, I pray you will share it with others.

How Do I Get Started?

If you have read this far, you have already started. You now know more than some, but less than others. Follow up with details on our LCRCC website or see our Facebook page. Contact one of our club's officers. He'll give you contacts people who would be willing to give you some of that free advice and help you. Google research the major products and brands available. Electric planes tend to be easier to build and there are so many ARF's (Almost Ready to Fly) out there. However, there's a lot of fun in building a good quality balsa kit. Bigger planes are actually a little easier to fly than the small ones. You don't get tossed around by the wind too much. But before you waste money, talk to an experienced user. Come to the flying field during the flying season, usually when warm, between April and October. If our access gate is locked, no one is there. If unlocked, come on through to the parking area. Our field is just on the north side of Russell Road between I94/41 and the Des Plaines River.

Useful Links:

Wiki overview of RC: https://en.wikipedia.org/wiki/Radio-controlled_aircraft

Lake County Forest Preserve District: <https://www.lcfd.org/things-to-do/recreation/model-aircraft/>

LCRCC website: <https://lakecountyrccclub.org/>

LCRCC Facebook Page: <https://www.facebook.com/groups/680295432041868>

FAA website about UAS: <https://www.faa.gov/newsroom/small-unmanned-aircraft-systems-uas-regulations-part-107>

FAA website for UAS registration: <https://faadronezone-access.faa.gov/#/register>

Websites for typical airplane products: <https://www.motionrc.com/>

<https://www.horizonhobby.com/learn-to-fly-rc-here.html>

<https://www.horizonhobby.com/aircraft-skill-levels/skill-level-1/>

Google "Balsa RC Trainer Kits": <https://balsausa.com/collections/sport-planes/products/student-trainer>

https://hobbyking.com/en_us/piper-j-3-cub-balsa-wood-rc-laser-cut-airplane-kit-1800mm-70-for-electric-or-i-c.html