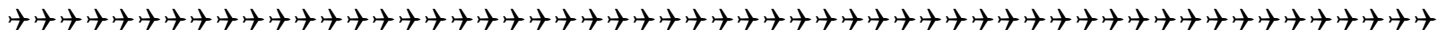




Squadron News April 2022

An AMA Gold Club

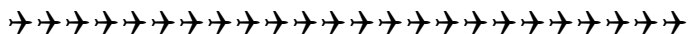


Newsletter Editor.

Hello everyone, I'm John Lawyer and I am going to be taking over as the newsletter editor. I will admit I am terrible with names, so if I get your name wrong in the newsletter I apologize beforehand. If I get other facts wrong, I apologize. If you send me an email or hand me a note on any corrections, I will be glad to get it into the next newsletter. Besides, that will help me to take up space in the newsletter also. ☺ You can contact me at jlawyer41@att.net or 765-918-7229

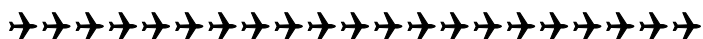
I will always be happy to take input from anyone for the newsletter.

P.S. Pictures of your latest bird or project are always welcome



Upcoming Club Events

- May 4 - monthly club meeting, 7:30 pm at the field
- May 21- Warbird warmup at Club field.
- June 1 - monthly club meeting, 7:30 pm at the field.
- July 6 - monthly club meeting, 7:30 pm at the field.
- August 3 - monthly club meeting, 7:30 pm at the field.
- August 13 - NMAD event at Club field.



Upcoming Area Events

May 13 thru 15 - NEFI - National Electric Fly In at AMA headquarters.

June 4 - *Updated* - Joe Grube Warbird Fly-In, BCRCF, Sat 6/4 @ 9am, Petersville, IN

June 24 thru 26 - AMA National Fun Fly Intl Aero Center, Muncie, IN.

August 13 - NMAD event

August 25 thru 27 - Hoosier Dawn Patrol, AMA Natl Site, Muncie, IN.



April 2022 Meeting Minutes

Recorded by Tom Carlyle, Secretary

The April 2022 club meeting was held on April 6, 2022 at the flying field. Vice-President John Loudon called the meeting to order at 7:00 PM. Nineteen (19) club members were in attendance.

President's Report

- No report.

Vice President's Report

- No report.

Treasurer's Report

- No report.

Secretary's Report

- Gold Leader Club renewal filed and approved by AMA.

Field Marshall's Report

- The field is a bit muddy.
- Mower has been cleaned and tuned; the pits has been mowed but the runway has not.
- Grass seems to be sprouting.
- No further info from Waste Management about the drainage.
- Bryan picked up a sweeper that can be pulled behind the mower (just be careful when you turn).

- Bryan is going to see about getting a sprayer for week killer.

Safety Coordinator's Report

- No report.

New Members/Visitors

- New member Don Haverly, Jr. joined during the meeting. It's been about 10 years since last flying helicopters. Welcome back to Jerry Morgan.

Old Business

- A Warbird warmup event will be held on Saturday, May 14th. Bring out your Warbirds and get them ready for the October Warbird event. This date will not be exclusive to Warbirds.
- Our 10th celebration of National Model Aviation Day will be on August 13th. Again this year, we will hold a fundraiser in support of Hoosier Veterans Assistance Foundation. Tom Carlyle will file for a sanction with AMA for the event.
- We've talked about creating a new bench on the west end of the pit area. We need a volunteer to design it and present a cost estimate to the club.
- There was also more mention of building a shelter cover on the west end of the pit area. The club would entertain suggestions for a design.

New Business

- There will be an RC swap meet at the Center Grove High School on Saturday, April 9th from 8a – 12p. The event will be a fundraiser for school. Tables are \$10 in advance; \$15 day of event. \$5 general admission. Indoor flying will follow the swap meet from 12p – 4p. \$10 to fly.
 - [Link to info about event](#)
 - [Link to event flyer](#)
- Steve Geiger donated two planes to the club. We'll raffle those off to club members later this year.
- AMA will hold their fun fly in September.

Show and Tell

- Joe Miller brought his Freewing F7F Tigercat. Twin 4S electric power. Joe upgraded the model with the more scale electric retracts.

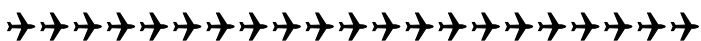
Raffle

- No raffle was conducted.

With no further club business, the meeting was adjourned.

The May club meeting will be held on Wednesday, May 4th. The meeting will begin at 7:30 p.m. **Please note the change in start time.** The meeting will be held at the club flying site.

One last reminder, please support your local hobby stores. Special thanks go out HobbyTown USA in Castleton for extending a discount to our club for our monthly and year end raffle prizes.



Message from the President.

President's message:

May is here already, the year seems to be flying by. Hopefully May will bring us more days that provide nice flying conditions. And, with more flying days from this point going forward, another reminder to check your equipment. How about a preflight checklist, whether you are flying a new plane or everyday flyer? This month's lesson is always checking your control surfaces before you take off. I mean not just wiggling the sticks to watch go. I try to set a good example by always moving each control stick slowly and talking to myself, right - right, left - left for ailerons and rudder and back - up, forward - down for the elevator. I have seen this simple preflight task save airplanes many times. Most of us fly by muscle memory that we have developed over the years and some airplanes, if the pilot figures out the ailerons are reversed soon enough can safely recover the flight and land without incident. This may be accomplished by flying with rudder inputs, being able to think right is left and left is right or the daring task of flipping the airplane inverted where while inverted, right will be right and left will be left and the second daring part of lining up for a landing and rolling back to right side up and then easy on the ailerons. It really depends on the plane you are flying, slower planes and planes with more dihedral than true aerobatic planes, will obviously be easier to control than the faster, quicker planes. I don't use safe on any of my planes so don't know if the safe button would keep the plane right side up or slow the control movements enough figure out the situation. While this message is long, I have seen some really nice r/c aircraft not survive the reversed aileron control recovery.

This month's photo is with my aerobatic hero, Walter Extra. Got to meet up with him at a trade show in Germany. His newest Extra 330NG is fully composite, including the main structure, no traditional steel tubing. While fully aerobatic, this one has nice leather seats, auto pilot and glass cockpit. Looks like I will be looking to a NG! Wednesday is meeting night, hoping for a good evening for flying and visiting. Bring a plane to show, something to sell or trade and make it a great meeting.

Rege





SOAPY THREADS

If you are trying to thread a screw into a plywood or hardwood block—for example, for a landing-gear strap—it is often hard to thread the screw into place without wearing out the screw head. - The best way to make the screw go into the tight-fitting hole is to apply some bar soap to the threads. The soap lubricates the threads and makes the job much easier. It also helps when it is time to remove the screw.



PAINT DRIPS

An easy way to avoid messy paint drips around the workshop is to take a rubber band and slip it over the paint can as shown. You can now dip in the brush and wipe the excess paint off the bristles by pulling them over the rubber band, which is stretched over the can's opening. This tip is great for all brush-on paints, including dope and epoxy paints.



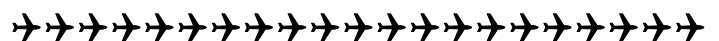
MAGNETIC SCREWDRIVER

High-powered magnets are available everywhere, from online to most home-improvement stores. They are strong and compact, and if you attach one to a metal screwdriver, you've just made a magnetic screwdriver that will hold a screw in place. This makes feeding the screw into place in your airplane (like for servo mounts) a piece of cake. As an added bonus, they make it easy to pick up loose screws, pins, and nuts on the workbench.



THINK SMALL

When you are custom-mixing paints, such as when you are trying to match a camouflage color, think in small amounts. By mixing up small batches using glass jars and measuring cups, you can fine-tune your mixtures without wasting too much paint. If you get it wrong, you throw out an ounce at a time, not pints or quarts. When you do get the ratios correct, write them down and then you can multiply the ratios to mix larger quantities.

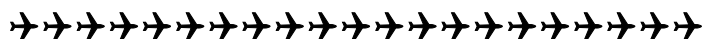


Indy RC Modelers have a new Facebook page

Important Notice

We have a **NEW** Facebook group page for the Indianapolis RC Modelers Club. The name for the new group is Indianapolis RC Modelers (the S was added from the previous group page). To get access to this new club group page you can click on this link <https://www.facebook.com/groups/389238956080081> Then click on the button saying "Join". You will be asked a couple questions to join. Please review the rules for posting on this new group. After you click on "join" a message will go to several of the club officers and one of us will give you access to the site for posting. (Your request will normally be approved within 24 hours). Please use this new group page for posting Indianapolis RC Modelers information and to keep up on club events and activities.

Ted Brindle, Secretary, Indianapolis RC Modelers
Indianapolis, IN



Takeoff with a 1 1/2 Positive Snap Roll



If you're aspiring to become a better aerobatic pilot, you are, no doubt, constantly searching to add excitement and variety to your flying. After all, the best aerobatic pilots are skilled at combining certain elements from one maneuver with elements from another. This month, I am going to combine the snap roll with a takeoff, so you can get attention focused on your flight right from the start. Before we get into a deep discussion about this eye-catching aerobatic move, however, we will take a look at your aircraft and how it is set up regarding dual rates and exponential settings. Now, let's get down to business.

First Things First

Many aerobatic airplanes today are advertised as being "3D capable," and they have very large control surfaces so that they can perform maneuvers while in a stalled condition. Having large control surfaces and a lot of control surface deflection, however, are not needed for any maneuver that isn't considered 3D, and with respect to this month's maneuver, a lot of control deflection is not a good thing. The goal is to perform a precise 1 1/2 positive snap on takeoff—nice, crisp, and clean.

I prefer to use flight modes, with my dual and/or triple rates on one switch. This means that my aileron, elevator, and rudder rates are on one switch. To perform the combo maneuver of the month, I prefer to use two flight modes. On my lowest rate, I have about 15 degrees of aileron, 12 degrees of elevator, and 35 degrees of rudder deflection, with 20, 25, and 50% exponential, respectively. On my second rate, I have about 30 degrees of aileron, 25 degrees of elevator, and 32 degrees of rudder deflection, with 45% exponential on all these surfaces. Keep in mind that values differ from airplane to airplane.

When I perform any takeoff and landing, I am always on my low-rate settings. When I perform

a stunt like a snap roll only feet from the ground, I switch to my mid-rate settings right before the snap roll and switch back to my low-rate setting when the snap roll is completed. While everyone has different personal preferences, this is the setup that has worked best for me as I do not want my aircraft to be sensitive while flying on low rates. No matter what size aircraft you are flying, whether it is a small park flier or a giant-scale one, always take advantage of flight modes and adjust each rate as needed to cater to your liking. For example, once you're flying, if you move the aileron stick to its maximum and the roll rate of the aircraft is slow, then increase the dual rate percentage for that given rate. Similarly, if you feel that the airplane responds too quickly around neutral but the endpoint value is great (the dual-rate value), then increase the exponential percentage you are using. Do this test for all your control surfaces.

Overview

Before attempting the 1 1/2 positive snap on takeoff, you should be proficient with performing positive snap rolls in general. When you execute this move, you must be in complete control and exit the maneuver at a safe altitude. Do not drop altitude throughout the snap roll as this can be fatal when you're only feet from the ground!

Depending on the power-to-weight ratio of your aircraft, your throttle percentage may differ slightly. On most of my models, I prefer to apply almost maximum power throughout the takeoff roll and then decrease power slightly once the airplane breaks ground. I then pitch the airplane up slightly by pulling back on the elevator control stick and applying the same-direction rudder and aileron. I'll release elevator to unload the airplane and ensure that it does not drop any altitude through the rotation. Then, once inverted and after 1 1/2

snaps have been performed, I'll release aileron and rudder input and apply a touch of down-elevator to sustain level inverted flight. While this may sound simple, there are a lot of different elements that need to be perfected.

By the Numbers

Let's divide the maneuver into four steps. In this example, we will take off from left to right. Always take off into the wind. If there's a strong crosswind, take off in a direction that is the most favorable.

STEP 1

While on low rates, add about 80% throttle and apply rudder as needed to keep the airplane straight down the runway. With tail-draggers, you'll need to hold some up-elevator and slowly release elevator input as the airplane is nearing the liftoff speed. Then, pull back ever so slightly on the elevator stick until the airplane becomes airborne.

STEP 2

Once the airplane is about 15 feet above the ground, flip to your mid-rate setting and cut back slightly on power if the airplane's speed is too fast. Pull back slightly on elevator, and apply the same-direction aileron and rudder to initiate the snap roll. In this case, we will perform the snap roll to the left, so we will need left aileron and left rudder. Sometimes, people are confused by the control inputs needed in performing snap rolls. When performing a positive snap roll, up-elevator is needed along with aileron and rudder inputs in the same direction. When performing a negative snap roll, down-elevator is required along with opposite directions of rudder and aileron input. It is critical to time this portion of the maneuver so that the airplane will precisely execute exactly 1 1/2 rotations, causing the model exits the maneuver inverted.

STEP 3

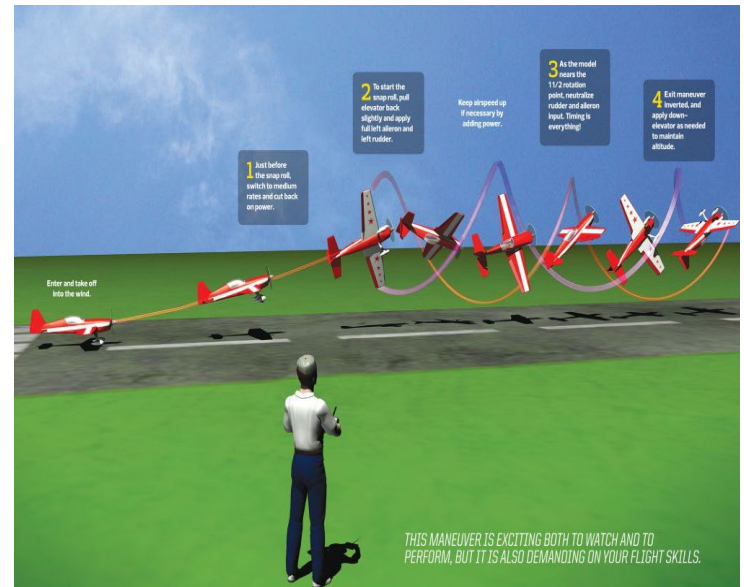
Throughout the 1 1/2 rotation, apply throttle (if needed) to keep the airspeed up. Once the airplane nears the 1 1/2 rotation point, you'll need to neutralize aileron and rudder so that the airplane stops the rotation precisely where desired. This will take practice and some time to perfect, so altitude and familiarity are key. After all, this maneuver should only be done on takeoff if you are confident in your ability to execute snap rolls precisely on demand.

STEP 4

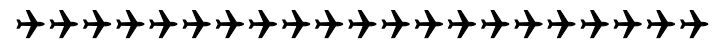
Since the 1 1/2 positive snap rolls have just been performed, you will have to apply down-elevator, as needed, to sustain your altitude. Once you are familiar with how to perform this maneuver, you can then pull the throttle back to lower the airspeed slightly and descend so that you are just inches off the ground while inverted. Of course, this is in a perfect world with no wind present. If a crosswind exists, I recommend that you perform the snap roll into the wind. For example, if we are taking off from left to right and there is a strong wind blowing in, I would snap to the left so that the airplane snaps away from you. Heavy winds may cause the airplane to drift throughout the snap.

Now you have the keys to perform the 1 1/2 positive snap rolls on takeoff with pizzazz. This maneuver is exciting both to watch and to perform, but it is also demanding on your flight skills, so do not attempt it until you are comfortable in executing snap rolls without any

loss in altitude. Until next time, safe flying and always remember to have fun.



BY JOHN GLEZELLIS; ILLUSTRATION BY CHROME CITY STUDIOS



Editor: John Lawyer

***** Till next month may all your landings be wheels down. *****