



# HI-SKY R/C FLYER

March 2009

Volume 38 Issue 3

President: Chris Rutter  
Vice President: Gilbert Hernandez  
AMA Charter Club #851

Treasurer: Ed Anderson  
Secretary: Ralph Gillette  
www.hiskyrc.com

**Meeting:** The March 2009 meeting will be held in the First Baptist Church Activity Building March 3, 2009. The meeting will start at 7:00 PM.

**The 2009 dues are due:** Please pay your 2009 dues now so our treasurer can send in our clubs charter.

**HI SKY R/C Club Minutes: February 3, 2009**

Meeting was held at the First Baptist Church.

Meeting called to order at 7:02 PM by President Chris Rutter. 18 members and 7 guests were present.

**Minutes:** Minutes were approved as published in the newsletter.

**Field Report:** Field looks pretty good. Jim Tartt will buy a roll of netting to renew the old safety fencing. Jim Ruple is getting some brushes and paint to refurbish the buildings and structures around the field. Jim has the paint and brushes for the cabinetry, need to buy some aluminum paint for the metal parts. Moved and approved to spend \$145 for the paint. Planned workday is March 7<sup>th</sup> at 8:30AM to spray for

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### Give Me Exponential Rates

By Matthew George

From the Northern Utah Radio Control Aircraft Club

I wanted to take a few minutes and talk about the use of exponential rates as supported by most of our RC transmitters. After getting back into the hobby over the last several years, I'm surprised at the slow adoption rate (no pun intended) of using exponential rates.

I have even heard recommendations that you shouldn't use exponential rate features on your radio. I can tell you by experience, that any pilot serious about becoming accomplished in aerobatics will make his life much harder if he tries to fly precision maneuvers without incorporating exponential rates into his control surface throws. I am of the opinion that almost any aircraft should be set up with exponential rates on the control surfaces. You will immediately see an improvement in your flying once you understand and start dialing in exponential rates for all your aircraft. Trainers to unlimited IMAC birds, gliders, sport planes, flying lawn mowers, etc ...

What is the definition of using an exponential rate on a control surface? Exponential rate is where the servo movement is not directly proportional to the amount of control stick movement on your transmitter. Over the first half on the stick travel, the servo moves less than the stick. This makes control response milder and smoothes out level flight and normal flight maneuvers. Over the extreme half of the stick travel, the servo gradually catches up with the stick throw, achieving 100% servo travel at full stick throw for aerobatics or trouble situations.

All the newer radios support this feature and the best part is the fact that no physical change is required on the aircraft. It's a simple matter of programming your radio to use exponential rates on some or all of your control surfaces including your throttle.

Have I convinced you to give expo rates a try? It's not scary; I promise. Pull out your transmitter manual and start reading. It's usually a simple matter of scrolling through your on-screen setup menu and finding the option to set expo for each control surface.

There is only one caveat I know of, if you have a Futaba radio, make sure to dial in your exponential.

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weeds and stickers and to get the painting done.

**Safety Report:** Everything has been safe. With the warm weather, watch for snakes.

**Treasurers Report:** We have money in the checking, savings and CD accounts. Ed moved some money into checking to help pay for the use of the Horseshoe for the electric fly in.

**Activities:**

IMAC – We will join Odessa club again this year.

Calling of the Hogs – Planned for second week in September, 12<sup>th</sup> & 13<sup>th</sup>.

Fajita Fun Fly – Planned for second weekend in June, 13<sup>th</sup> & 14<sup>th</sup>.

Fun Flies – It was discussed and agreed that we need at least two fun flies this year. Dates picked were April and May

Electric Fly in – October 16<sup>th</sup>, 17<sup>th</sup> & 18<sup>th</sup>. Jeff Laufer is working on ideas for advertising. General discussion for charging less for anybody flying only one day, centered on \$30 for 3 days, \$20 for 1 day. Motion made and approved. Give one table with registration, \$5 for extra table. Motion made and approved.

**Old Business:** Question concerning the instructor pilot program. Ed had sent the information to AMA and the cards are back.

**New Business:** Question about having a handicap porta-poti. Jim Tarrt will check out the cost.

**Show and Tell:**

Jim Tarrt brought his Nitro Plane Mini Girl electric. It is a built up ARF. Uses a 400 brush less w/ 9-6 prop. Jim says it flies very well.

Chris Rutter brought his new Great Plains Electric Corsair, which is almost finished. All he has to do is install the control system. He is looking forward to flying if he can get a good day.

Dennis Robins brought a couple of blue core planes from internet designs. He also had his new

Klick w/out speed baffles he plans to fly in the open event at San Angelo.

Tom Suddeth brought two Hobby Zone mini helicopters and a blue core Mirage 2000 which he designed. He says it flies very fast.

Rick Strange brought his Hangar 9 ARF J3 Cub. Flies on a 40cc gas motor.

**Club Raffle:** No raffle.

**Next meeting:** At the Baptist Church, 7:00PM March 3rd.

Meeting adjourned at 7:50PM.

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**FOR SALE:-**

Great Planes Kaos kit .61 size. 58 inch wingspan – Aerobatic to say the least - \$75.00

Hitec CG335 Field charger for NiCad batteries. Glow driver, 4-24 cells input voltage 9-13.9 volts Output current 0.5 amp to 2.5 amp for 4 or 5 cell pack- \$35.00

If interested call Henry Smith @ 570-6262 or email at [hksmith35@prodigy.net](mailto:hksmith35@prodigy.net)

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73 inch wingspan Edge 540 Dark blue and yellow, with 3w24i Gasser Engine . all servos and flight batteries (Engine not broken in yet) \$400.00 Would consider trading for the appropriate helicopter. Contact Jeff Roberts @ [jeffdana64@ridgewoodcable.com](mailto:jeffdana64@ridgewoodcable.com)

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**Picked Up Passing By**

I have noticed that we are well into 2009. In fact by the time you are reading this, February will be ended and March will be here. For some of us, we need to get started on our income tax return. I have been busy working on other peoples tax returns and haven't started my own return.

Over more years than I care to admit there have been a lot of changes in our hobby. Not a lot of the readers of this can appreciate how great a change the die cut balsa was. Some of the first models I built only had the outline of the parts printed upon the balsa sheet. I used a double edge razor blade to cut parts out of the sheet. That was a safety problem if there ever was one. The town where I lived didn't have a source of modelers tools. --More later--

## CALENDAR OF EVENTS

SAN ANGELO T.I.N.Y

SAN ANGELO COLISEUM

MARCH 6-8, 2009

Check website for more details.

WEATHERFORD, TX ANNUAL SWAP MEET AND AUCTION

HALL MIDDLE SCHOOL

MARCH 20 & 21, 2009

\$5.00 per day admission & \$10.00 table rental.

LONE STAR NATIONALS 2009

GREATER SOUTHWEST FLIERS FIELD

MARCH 27-29, 2009

R/C Combat Hard hats required for pilots and crew.

OLD KINGSBURY TX IMAC ROUND UP

OLD KINGSBURY AERODROME

APRIL 25 & 26, 2009

Hotels close by and camping available on site.

9<sup>th</sup> Texoma R/C Electric Extravaganza

Sherman Club Field

May 2, 2009

Fly in for all electric powered aircraft.

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### Balsa Grooving Tool

By Jerry Sullivan

From the San Diego Orbiters Free Flight Club, San Diego, California

I recently wanted to cover the plain old landing gear on my Power Scale S.E.5a with balsa to gain a few more scale points. In the past I have used four pieces of balsa to make a little box around the wire. For this try I figured that two pieces of balsa with a groove in each would do the job.

I did have a miniature round wood rasp that did the trick. However, to assist other modelers who might not have such a tool, I wanted to give them a way to do it. I took a 1/16-inch diameter wire and bent one end into a gentle curve. I drilled a hole in the end of a dowel as a handle, and CAed the wire into the handle. Using a straight edge on my work piece, a few quick strokes make a dandy groove. You will have to clean out the grooves occasionally. Repeating on the other work piece gave me a pair that could be glued around the wire. Use of CA will hold the balsa leggings to the wire.

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It's a strange world of language in which skating on this ice can get you into hot water.

--Franklin P. Jones

rates as a negative number. All other radios use positive numbers when setting up expo rates. I would start by static checking your control throws after you dial in some expo. Start with your ailerons and dial in about 30% expo for channel one. Now watch your aileron control throws as you move your stick on the radio. You will notice a soft, easy movement while you are at the center of the stick and as you move the stick to full left or right, the controls will begin to move faster to their current end-point setup. This will make your aileron response much more soft at the center of the stick and you will be doing full, slow rolls all across the field. When you need some quick aileron for a quick correction or faster aileron roll, you will still have the throw you need when the stick gets to its extreme position. It will make your flying much smoother. If you are using the newer faster servos, you will see much more effect by using expo rates.

So how does Matt have his radio set up? There is no exact formula, but this may give you a place to start:

My expo setting on my Composite ARF 330S for precision non-3-D flying are below. Keep in mind I have a lot of throw in my control surfaces even on low rates, so you will want to experiment and find the best settings for your aircraft. (Note: I'm using a Futaba radio, so these numbers are listed as negative. For other radios—JR, Airtronics, etc.—you would dial in positive numbers.)

Aileron: -50% (left and right)

Elevator: -40% (up) -20% (down)

Throttle: -38% (this smoothes out the throttle response across the

whole stick movement)

Rudder: -80% (left and right)

If you are skeptical, start with lower numbers, 0% would equal no exponential at all. Try a different setting after each flight and get to a point where you see your flying get smoother.

You have heard all the top aerobatic pilots' names: Frazer Biggs, Quique Somenzini, Mark Leseberg, Christophe Paysant-LeRoux, Chip Hyde, Mike McConville, Bill Hempel, Kenny Lauter, Jason Noll, Jason Schulman, etc. I'm not even in the same league as these pilots, but guess what all these pilots have in common? Yep, they all make heavy use of exponential rates when setting up their radios.

So pull out that radio manual and start dialing up that expo! You will be glad you did and your friends will be asking you what you did to improve your flying.

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Accept that some days you're the pigeon, and some days you're the statue.

---Roger C. Anderson

From the Robbins Nest:

**Horseshoe update:** The Midland HiSky R/C club will host our indoor electric fly-in on October 6 – 8, 2009. We now have the sanction in place, and a contract with the Horseshoe for the event. The next step will be to start a thread on the discussion forums on the internet. I will do so after the San Angelo fly-in, which is March 6 – 8. I recently purchased our raffle items, which will be an E-flight Blade MCX helicopter, and a Parkzone Vapor airplane. Both will be ready-to-fly, complete with transmitter (2.4GHz), and battery.

X-Treme R/C, located in San Angelo, Texas, made the purchase possible, and I picked up the helicopter and plane last Saturday. Thanks to Jason for helping out. He has a full service hobby shop, with lots of supplies for gas and electric. He tells me he can ship to Midland, so keep this in mind whenever you need supplies quick. His phone at the hobby shop is 325-944-0974. Hopefully Jason will be able to attend the fly-in, and will have items needed to keep our planes flying.



**The TINY, San Angelo, Texas:** This is a very popular fly-in, and will be held this coming weekend for three days. So mark March 6 – 8 on your calendar, and make plans to attend this great venue. There will be several types of contests, pattern flying, and freestyle events to round out the flying. The TINY always provides plenty of airspace, and plenty of folks to visit with to make this a “must attend” indoor electric event.

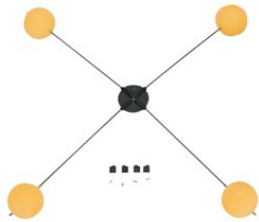
**4<sup>th</sup> Annual SPEF indoor electric event:** April 24 – 25, 2009 is the date set for the Plainview fly-in. We always have an enjoyable time at Plainview, and Royce, Reagan, and Britton May are the perfect hosts! This event is always held at the Ollie Liner Center, which is 136ft wide, 302 ft long, and 25ft high.

Complete descriptions of these three venues can be found on the AMA Dist. VIII website: <http://www.ama-dist-8.org/Calendar/index.php> Just copy and paste into the address box, and it will take you direct to the event calendar for Dist VIII.

**For Sale: Blade CX2 coaxial helicopter (upgraded) 2.4 GHz-  
Like new condition \$175**

**call Dennis Robbins 687-5663 for details**

Also included: Training Gear Kit



**UPGRADES include the following:**

**CARBON FIBER TAIL BOOM KIT**

**Main Motor Heat Sinks**

**Inner Shaft w/Aluminum Head/Hub**

**Aluminum Bearing Holder with Bearing**

**Aluminum Lower Rotor Head**

**Aluminum Swashplate set**

**2-eflight 800 mah 2 cell lipo batteries**

**Extra parts:**

**Stabilizer Fly Bar**

**Set of Blades (upper and Lower)**

**Gear set**

