



# SANDERSON FIELD R.C. NEWS

SFRCF SWAP MEET April 18th  
Pylon Race April 19th



## CLUB MEETING

This months meeting will be held on Thursday April 9th from 7:00 p.m. to 9:00 p.m.

at PUD #3

At 3rd & Cota

Minutes read and accepted as read.

Treasurers report read and accepted as read.

A correction was made to the date of Torrie Peckham's solo flight which was Dec. 2008 not 2009.

Dick noted that there is a pylon race on the 15th and we need more people to help out.

We talked about the passing of Bill Bunce. Bill was a member for a long time and always came out to help with the pylon races while he was a member. He was very easy to talk to and always friendly, We'll miss him.

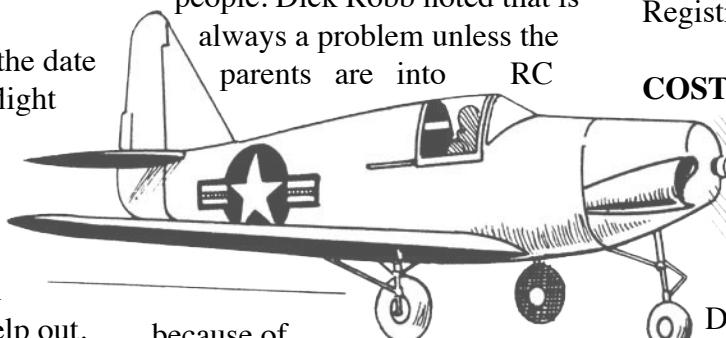
Dick proposed that the Vortex from the VanPassen estate be used for the raffle at our swap meet.

Sharon Diaz mentioned that we need to let the school we are a

non-profit organization and also that we donate to the High School scholarship when we reserve the building for the swap meet.

Red Apple flyers Apple blossom fly-in May 2nd and 3rd and the Scale masters on September 10-13

Gordon Barrett suggested we try to find some way to attract younger people. Dick Robb noted that is always a problem unless the parents are into RC



because of the money factor and also said he would like to see a return to having the school kids come to the field and try the hobby out.

Chuck Kentfield looked around for a deal on fuel and found no deals of note.

Dick Robb showed his glider that he designed with a thunder tiger .07 glow engine. It has been designed for easy conversion to electric.

Meeting adjourned 7:21

**2009 SHELTON, WA  
WINTER SEASON  
PYLON RACE  
SUNDAY APRIL 19TH, 2009**

**WHERE:** Sanderson Field, Shelton Airport, Shelton, WA – call or email for directions

**WHEN:** Sunday April 19th, 2009. Registration opens 8am.

**COST:** \$ 25.00 per class

**CLASSES:** Quickie 428 / Quickie

APRA – Winter season Dash for Cash race #3 (#2 was cancelled due to bad weather)

**CD:** Eddie Graves 253-254-3450, federalex@mac.com or alternate contact Tom Graves 253-820-9277, taildraggerrc@aol.com

**SEE YA AT THE RACES!**

**RC Hobbies in Lacey was burglarized early in the morning of March 27th see page 6 for details**

# Using Exponential Rates

From the Northern Utah Radio Control Aircraft Club

exponential [ex-po-nen-tial]  
adjective Mathematics  
of or expressed by a mathematical  
exponent : an exponential curve  
• (of an increase) becoming more  
and more rapid.

## Give Me Exponential Rates

By Matthew George

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

**DUES ARE \$100.**

**IF YOU PAY BY MAIL SEND YOUR DUES,  
YOUR OLD KEY, PROOF OF 2009 AMA  
MEMBERSHIP AND A SELF  
ADDRESSED STAMPED ENVELOPE  
TO THE TREASURER:**

**CHUCK KENTFIELD  
3122 Madrona Beach Rd.  
Olympia WA 98502**

**Make checks payable to SFRCF**

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 rates as a negative number. All other radios use positive numbers when setting up expo rates.**

## CLUB OFFICERS

President .....	Eric Oberg .....	(360)426-8777
Vice President .....	Dick Robb .....	(360)427-4521
Treasurer .....	Charles Kentfield .....	(360)866-9473
Secretary .....	Bob Beatty .....	(360)426-5601
Safety Officer.....	John Tupper.....	(360)426-6383

## BOARD MEMBERS

Board Member.....	Eric Oberg .....	(360)426-8777
Board Member.....	Dick Robb .....	(360)427-4521
Board Member.....	Jody Diaz.....	(360)427-6102
Board Member.....	Stacy Myers .....	(360)426-9367
Board Member.....	Bob Beatty .....	(360)426-5601
Board Member.....	Dave Fisher .....	(360)490-2338
Alt Board Member .....	Bob Mason .....	(360)426-9256
Alt Board Member .....	Chuck Kentfield .....	(360)866-9473

# Using Exponential Rates (continued)

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.

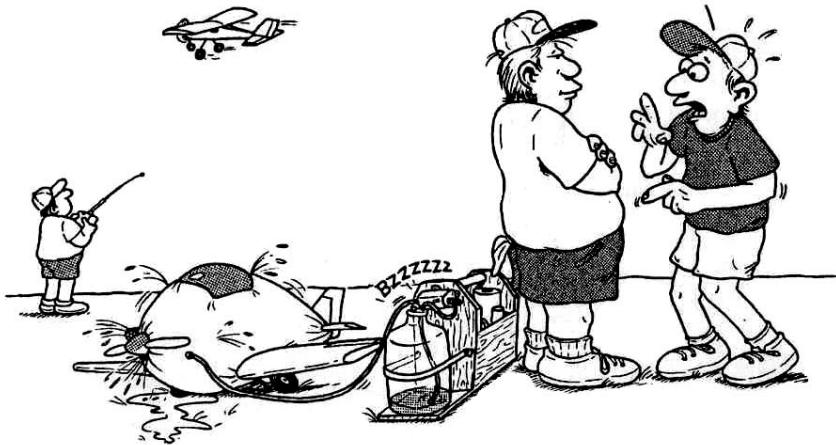
**(Note: I'm using a Futaba radio, so these numbers are listed as negative. For other radios—JR, Airtronics, etc.—you would dial in positive numbers.)**

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.

**Barney's modified fuel pump needed to be monitored closely...**



## TIPS

### Wires

Get a hold of a junk VCR and take it apart. Quite often there are a lot of wire harnesses in it. While the wire is other colors, as well as black and red, it is high quality and works very well for RC hookups.

### Lite Ply Replacement

My favorite material is "doorskins" to use in place of Lite Ply. You can purchase these at your local building supply company for around 5 bucks. The sheets are 36-inches-wide by 80-inches high and about 1/8-inch thick. I have used this in place of Lite Ply in fuselage sides, hatches, landing gear mounts, servo mounts, etc., and have never had a failure.

### Balsa Dents

When you accidentally dent a piece of balsa during construction of a model, try this old cabinet-maker's trick. Put a few drops of white vinegar on it instead of using filler. The vinegar will pull 99% of the dent out. Works best overnight. Try it; it really works!

# PORTABLE POWER PACK

by Royce Tivel

A few years ago I was a very active amateur astronomer. I operated a somewhat elaborate CCD telescope system for astronomical imaging. The system included a go-to mount, CCD camera, and a laptop. I used batteries as the primary source of power for the system (no AC hookup in the desert).

I am now learning to become an RC pilot using an electric-powered trainer. It seems like a good time to use the great portable battery pack I originally purchased for the CCD system: I can use the pack to supply 12V DC whenever--and wherever--it is needed on the flight line.

I purchased the power pack at Kendrick Astro Instruments. Although I purchased the quad power pack, Kendrick also sells a dual pack. Here is the manufacturer's description of the packs:

"These batteries are for those who demand the most of a portable battery and want it to have high end features. The 2081 has 2 cigarette lighter jacks and the 2082 has 4, each one individually fused with a quality circuit breaker. There is an LCD display to indicate remaining voltage. Pressing the red button next to the display will give the state of charge of the battery.

The power jacks have permanently attached plastic caps

that will flip closed to keep dirt out of the jacks when not in use.

The cordura carry bags have a couple of built in pockets to accommodate various battery accessories, such as cables or the charger.

These Power Packs have the muscle to meet the demands of the modern amateur astronomer / imager. They are rugged, beautifully made and dependable. With proper care they will last for 5 years or 500 charges, whichever comes first. A battery float charger is included with these batteries.

The included charger will never overcharge your battery and may be left plugged into the battery for extended periods of time without harming the battery."

Horizon Hobby now offers a nifty 12V DC Power Adapter with Cigarette Plug that provides the perfect interface between the battery pack and my Li-Po charger.

Note: The images for the article are from the manufacturers' sales pages.

You can see the html article with appropriate links by clicking on the link below.

<http://www.selectdigitals.com/articles/battery-pack.html>



April 2009						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
					DOL Instructor training	
5	6 7:00p SFRCF Board Meeting	7	8 7:00p SFRCF Regular meeting	9	10	11
		DOL Video Shoot				BAEC Auto Club
12	13	14	15	16	17	18
19 Pylon Race	20	21	22	23	24	25
26	27	28	29	30		

April has 2 no fly days...Be sure to check the Events page on the Web Site.

<http://sfrcf.quintex.com/Events.html>

## Club Scheduled Events for 2009

- January 1st.....First fly of the year - No go... snow and rain
  - February 8th.....Pylon Race - Come out and help officiate
  - ~~March 15th .....Pylon Race - Come out and help officiate 3" of SNOW!~~
  - April 18th .....Sanderson Field RC flyers annual swap meet 9:00 to 12:00 Jr. High gym
  - April 19th .....Pylon Race - Come out and help officiate
  - May 16th.....Fly-In - 9:00 a.m. to ?????
  - May 24th.....Pylon Race - Come out and help officiate
  - May 31st .....Forest festival Parade float
  - June 1st.....Public Fly-In 9:00 a.m. to ?????
  - June 6th.....Open House Fly-in/ work party - Hunter Farms
  - June 20th.....Public Fly-In 9:00 a.m. to ?????
  - July 18th.....Scale fly-in/Public/potluck BBQ - 9:00 a.m. to ?????
  - July 24th - 26th.....Pylon Race - Locked**
  - August 22nd.....Fly-in - 9:00 am to ?????
  - August 28th-30th....Pylon Race - Locked**
  - September 12th .....Fly-In 9:00 a.m. to ?????
  - October 10th.....Fly-In 9:00 a.m. to ?????
  - December 10th .....Christmas Party 6:00 p.m. to 9:00 p.m. (potluck)
- It's time for 2009 dues, dues are \$100.00**

Check out our web site at <http://sfrcf.quintex.com>

# RC Hobbies in Lacey burglarized

On Thursday March 27th, between 2am and 6am, someone broke into RC Hobbies in Lacey, WA. They took lots of stuff, many things were unique. There will be a list following shortly of exactly what was taken, but until I can get that out – PLEASE be on the look out for any one peddling cheap, quick sales of RC stuff. Especially –

1/8 scale Hydro boat – red, with transmitter – no box – this should have paint missing on one side of the other where they dragged it through the metal front door (they left paint on the frame)

DX7 Airplane transmitter

RC Hobbies gift cards – these will only work at the Lacey store and the Covington and Woodinville stores have been alerted

Helicopter – just the helicopter, they left all the accessories that go with it, sorry I don't have the details on this one other than to tell you it was a big helicopter, on consignment, worth about \$1,000.00

Slashes, RC cars – new, in the box

Small electric helicopters

If you come across anyone offering anything up for sale – please contact immediately –

RC Hobbies – Lacey – 360-456-4517

Thom Martin – cell – 360-951-6677 or home – 360-273-3718

Dan Nalley – cell – 425-306-3730 or home – 360-357-2328

This store is owned by Thom and Deanna Martin, who are very giving, generous people that are constantly involved in the RC community. Thom is a pylon racer, a sport flyer, a board member at the TCMMA club (Littlerock), a car racer.

Thanks –

Feel free to contact any of us with questions or information.

Patt