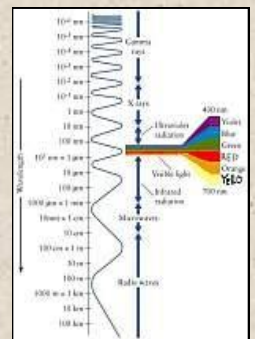


# Your model club needs YOU!!!



**Racers wanted!!  
Ability to turn left an asset!**

For more information talk to Larry  
[or see the thread on Flying Giants](#)





# Raleigh-Durham Radio Control

Volume 19, Issue 02 OFFICIAL NEWSLETTER

February 2010



Larry Lewis

## PRESIDENT'S PROP-WASH

Boogidy Boogidy Boogidy....Let's Go Race'n Boys!!

Yes..... I hate that phrase as much as you guys do, but I needed an opener!!! Some months I stare at the computer for several minutes trying to come up with those first words. So ANYway.....Lets talk racing a little! As many of you have been reading on the Flying Giants thread, several of our members have gotten well underway with their new Raider mach 2 racers. A few of us have test

flown them already, and I can tell you this. This is one easy flying, great tracking airplane! My Raider went together very quickly and literally flew right of the bench with NO TRIM needed! I was really pleased with its flying characteristics and speed. It's by no means as fast as most quickie airframes, but still fast enough for us to have fun with. I'm really looking forward to bunching these things up at turn one with others. Just in case you haven't seen one of them yet, I'll have it at this months meeting. My plan is to give a brief.....well.....you know me!! OK... SORTA Brief presentation on both the model and some of the basic rules of Club 40 racing. We spent a great deal of time talking business at last months meeting, and it left very little time for fun stuff. This month we have little, if any, business to take care of and my plans are to have a FUN MEETING for a change! That's right. We're going to have fun! Along with my Raider I plan to bring a few other items to share with our membership.

So here's what we need from you. **Bring Those Winter Projects** to the meeting and share them with all of us. I know many of you have been busy in the skunk works department, and its time for you to show the world what you've been up to!

Things at the field have been very busy even with all of the snow and rain. Seems every time I look at the RDRRC TV cameras I see many of you out there knocking holes in the sky. Heck, I even saw a few out there on Valentines Day!!! The field is looking great and with the exception of a little mud here and there the whole place is in great shape. One thing that should be noted is the driveway. Even with all the snow and rain, we haven't seen the first mud puddle form in the previous swap crossing we've be dealing with for years. I have had several members comment to me about the mud forming around the flight stations though. That's a small problem we can correct with little money and time.

I really don't have a lot to write about this month, so I'm going to cut it short for a change. Don't forget this Wednesday is the club meeting. We had a really nice turn out last month and we'd love to duplicate that again this month. And why not? After all.....it IS going to be a FUN meeting! ;)

Larry



Visit the club website at [www.rd-rc.org](http://www.rd-rc.org)



# Minutes of RDRC meeting

By: Secretary Dave Hockaday

## Next club meeting February 24th 2010

### Internet Access at RDRC

High speed internet access is available at the RDRC field for those of you with laptops, iPhones, netbooks, and other wireless devices. We have installed a feed for our cameras and weather equipment, and included a wireless router for support of other wireless devices. Some of you had mentioned wanting to help support the internet feed for the field data streams in exchange for secure wireless access at the field. If any of you are interested in this, send an email to: [wb4iuy@teara.org](mailto:wb4iuy@teara.org)  
If anyone wants to chip in, we'll pass along the rotating security codes to those who support the system.

**Don't forget to tune in to the Meeting Webcam if you cannot be there with us!!**

**<http://www.scotworks.com/rdrc/indexmem.html>**

**Login as RDRC and use the passcode on your membership card then click on the meeting cam link on the left hand side.**





# Safety Officers Report

*Mark Lofgren*

## SAFETY FIRST

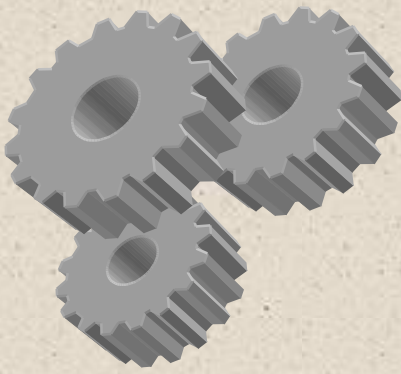
There's not much to report since last month. It seems like an eternity that flying hasn't been an Arctic, survival sport!! Lack of activity does keep our aircraft in one piece and no injuries to their pilots. This is a good time to go over our equipment so that we will be ready to fly safely. It might also be a good time for those of us with diminishing memories and other recall capabilities to make a preflight checklist for things like, oh let's say, connecting our ailerons correctly or, as I once did, even remembering to connect them in any sequence at all let alone reversed. Everyone, regardless of level of lucidity or dementia, should do a preflight check including a range check. Let's keep our safety record spotless this year for us and our aircraft. See you after the thaw.



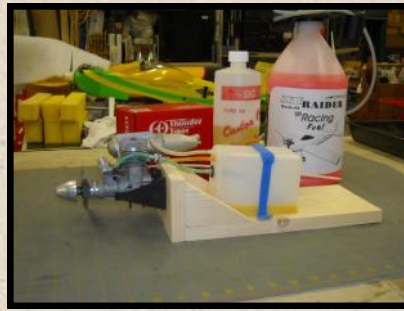
**This is what the field looks like with NO snow!!!**



[The ED](#)



Larry's Raider....??

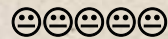


— HINTS FROM THE REFLECTOR —

Q. How can I remove a large lead lump epoxied into the front of a model??

A. Gently warm up the epoxy using a standard heatgun until the epoxy is liquid enough to allow the weight to drop out.

Bill D'Epagnier



Q. How can I make a gasket for an engine??

A. I have used yellow office folders for years. I think some call them manila folders, or something like that! Anyway, the thickness is very close to factory gasket material, and it seals great. They have a thin wax like coating. I keep a piece in my flight box all the time in case someone at the field needs a gasket repair. I also use this material to make exhaust gaskets, especially when I add an aftermarket header. Most headers don't come with a gasket.

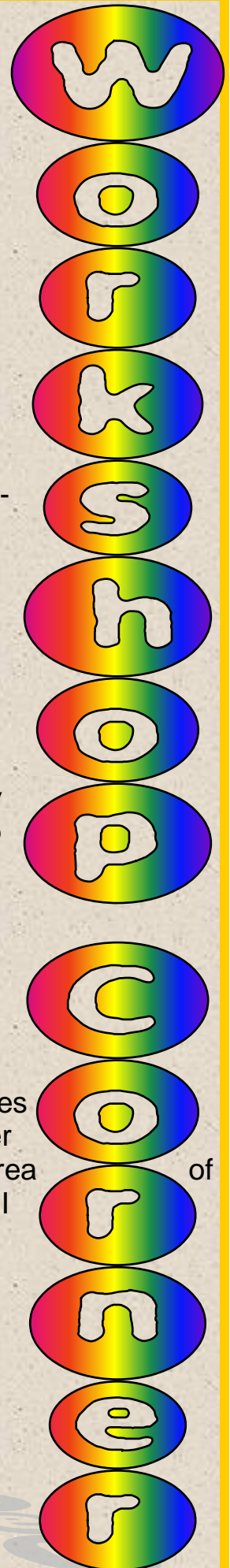
All you need is an X-Acto knife. To make a pattern for the needed gasket, just wipe a **thin** coat of machine oil on the part needing the gasket. Gently press the part against the paper and it will leave a nice image of the surface on the folder. Careful not to let the part slide around on the paper. You don't want a smeared image. Cut the inner areas of the gasket first, then bolt holes etc. It makes it much easier to work the material and not tear the paper. After all the inner cuts are made, you can use a pair of scissors to cut the outer area of the gasket. Of course, you can just use the X-Acto for this also. That's what I do in the field.

This will be a much easier repair than you may have thought! ;)

Larry the gasketman



Ken's Raider

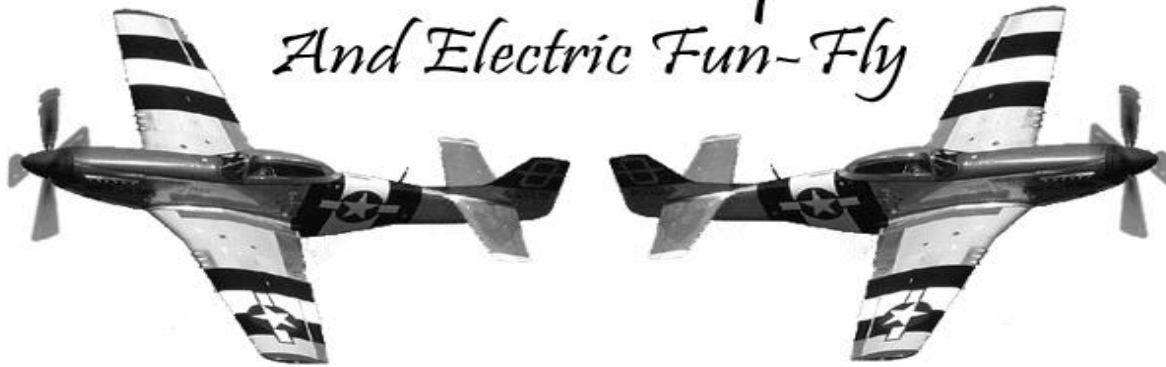


# *Notices - Upcoming Events*

Ok Raleigh listen up I have big news ....The Tarheel RC Flyers and the Pinetops Baptist Church Royal Ambassadors will be having an indoor flyin on Friday night Fed. 26th at 7:00pm . location at Pinetops baptist church reception hall. We welcome all of you to our event. Pizza ,snacks and Beverage will be provided, a \$5.00 donation will be asked going toward RA's program so please come out.

## **HANOVER RADIO CONTROL FLYING CLUB**

*8th Annual Swap Meet  
And Electric Fun-Fly*



**Sat. March 20, 2010 – Prizes and Concessions  
Fairmount Christian Church  
6502 Creighton Road Mechanicsville, VA  
Swap Meet Opens 8:00 am - 1:00 pm - \$5.00**

**Tables Limited - Walk In Tables Not Guaranteed  
Reservations Confirmed With Payment In Advance  
Contact - keithcollier@comcast.net  
\$10.00/Table (Admission incl.) - Setup 7:00 am**

**Indoor Fun Fly 1:00-4:00 - \$10.00 Landing Fee  
AMA Card Req. - Contact tsracing@dragbike.com**

**Latest Info and More Details – [www.hanoverrc.org](http://www.hanoverrc.org)**

**If you have something you want to get out to the Club, send me details and I'll publish it in here. Send in by the 3rd Sunday of the Month to ensure it will get into that month's RDRC Newsletter.**

# Hanover Radio Control Flying Club 8<sup>th</sup> Annual Swap Meet and Indoor Electric Fun Fly

## Sponsors

Hanover Radio Control Flying Club

If your model aircraft related business would like to help sponsor this event, please contact Tim Dudley [tsracing@dragbike.com](mailto:tsracing@dragbike.com)

## Overview

This is our 8<sup>th</sup> annual swap meet and second year we have included the indoor electric fun fly. We are committed to making your swap meet and fun fly experience one that you will wish to repeat next year and recommend to your friends.

## Date

Saturday, March 20, 2010

## Time

Swap Meet Table Set Up (Table Renters Only) – 7:00 am

Swap Meet General Admission – 8:00 am – 1:00 pm

Fun Fly – Approx 1:30 pm (as soon as the floor is cleared of the swap meet tables) – 4:00 pm

## Location

Fairmount Christian Church

6502 Creighton Road

Mechanicsville, Virginia 23111

From I-295, take exit 34A (Creighton Road East). The church will be on your right in approx ¼ mile.

## Table Reservations

We were very near capacity last year. Table space is limited. Walk-In tables cannot be guaranteed. We **STRONGLY** recommend making your reservation as soon as possible. Tables will be guaranteed on a first paid first reserved basis till we reach capacity. Reserve tables by contacting [keithcollier@comcast.net](mailto:keithcollier@comcast.net)

Tables are \$10.00 per 6' table and includes 1 free admission per reservation

## Table set up

Doors will open at 7:00 am for table renters only for the set up of tables and merchandise.

## Fees

General Admission to Swap Meet - \$5.00

Admission to Swap Meet with table rent – Free

Tables are \$10.00 per 6' table and includes 1 free admission per reservation

### Fun Fly

Pilots - \$10.00 Landing Fee

Spectators - Free

## Fun Fly

Pilots - \$10.00 Landing Fee

Spectators - Free

Starts as soon as the floor is cleared of the swap meet tables and merchandise – Approx 1:30

Ends at 4:00

Electrics Only

Pilots must present a current AMA card

Pilot's meeting at 12:30

The Hanover Radio Control Flying Club reserves the right to exclude equipment or pilots from flight as necessary to maintain the protection of people and property. Aircraft size restrictions will apply.

Contact [tsracing@dragbike.com](mailto:tsracing@dragbike.com) for any questions

## Prizes and Concessions

Door prizes and raffles

Hot Dogs, Chips, Sodas, Coffee and Muffins will be on sale

**So...from last months'  
Not a lotta people know that!!**

*Who was the English actor who said the words in the title??*

*The answer : Sir Michael Caine.*



**AND NOW AN APOLOGY FROM THE ED !!**



*The following article should have been in the December issue but I forgot to post it!!!  
Sorry Jim!!!*

**What?? It is not BIG enough to see???  
Dang...critics everywhere!!!**

**Ok..here it is again!!**

*The following article should have been in the December issue but I forgot to  
post it!!!*

**Sorry Jim!!!**

**Only a couple of months late!!**

**But seriously...this is EXACTLY what we need for the Newsletter, this or  
something to help our members with a problem, like Larry's gasket  
idea....send in your pictures, articles, comments etc and I will  
(eventually) publish them..I promise!!**



**The ED**



# Because It's Tuesday!

Well... Nov 3rd was another beautiful day at the field, with the normal good turn out, to take advantage of the perfect fall day.



One of our newer members **Mike O'Shea** was able to successfully get his maiden flight in with the help of (always willing) Jerry Pope and Pat Taggart.

Mike's new Hobbico Nexstar is powered with a OS-AX 46 and he uses a Sky Sport TX.



A more experienced new member **Bill D'Epagnier** brought his De Havlin Beaver. It is electric powered with a Turnigy 32 and a 1100 battery pack. With the large flap system they were able to bring it in at a crawl. Bill is using a DX7 TX.



**Al Walker**, one of the club's senior members, is an accomplished scratch builder. Al brought his scratch built 60% of a full sized Senior. It naturally has the wing dihedral eliminated so it flies like a sports model in his skilled hands.

On the bench is a new scratch built giant scale Senior which will soon be completed.

Many us at some point are faced with a "Tree Encounter". **Jose** was nice enough to show us all, the proper technique in the art of tree landings.

Step #1- Take the trainees and pick out a good tree.



Step #2- Plead, pray and offer gifts to the tree and plane Gods.



Step #3- Execute the perfect inverted soft landing as conceivably possible.



Step #4- Display to the trainees, when properly executed, the landing can be accomplished with very little damage.



Step #5- Find another pilot, and be friendly so you can fly his plane.



**Pat Taggart** took time out from helping others to display his F9F Panther jet, it's complete with full retracts. The Panther was one of the 1st Blue Angle performance jets. Pat's is powered by a 70mm ducted fan and is a Nitro Planes product.



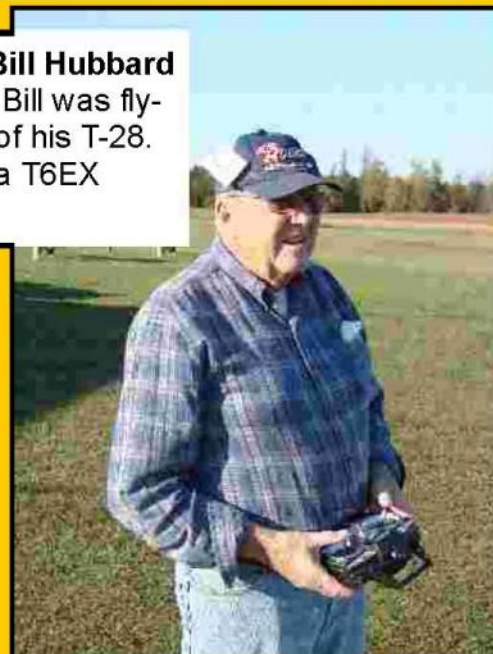
**Phil Bentley** flew his Focke Wulf 190 from his large fleet, it's powered by a 4250 out runner with a 5 cell pack. The **Focke-Wulf Fw 190** Würger, was a German single-seat, single-engine fighter aircraft designed by Kurt Tank in the late 1930s.



**Randy Long** recently has been one of the club's most active pilots. It was no surprise to see him not miss such a wonderful day.



If you don't see **Bill Hubbard** it's not Tuesday! Bill was flying the heck out of his T-28. He uses a Futaba T6EX Fasst 2.4 TX.



**Ed Radiel** brought out his Stearman P-17 which is a perfect replica of the original 1930 Stearman. The guys call it Radiel Rotary as Ed's is powered by a 170 three cylinder Saito. Neat!



# VIEW'S FROM THE FIELD



Sunday 01/31/10—Austin Smith's T28 on Ice



Skis? We don't need no stinkin skis!

Video of the field.....

[Tango no Bango 01/24/10](#)

click on link to go to the video

[Winter Tango 01/31/10](#)

click on link to go to the video

Send in your pictures or video links of field fun,  
either at our field or anywhere you are flying and having fun!!

Send them to me at :-  
[rcgeckoman@nc.rr.com](mailto:rcgeckoman@nc.rr.com)

# VIEW'S FROM THE FIELD

The first GOOD weather for ages brought a bunch of people out to the field for a Flyin'-like day at the RDRC!!



Pictures by Robert Vess.

Send in your pictures or video links of field fun,  
either at our field or anywhere you are flying and having fun!!

Send them to me at :-  
[rcgeckoman@nc.rr.com](mailto:rcgeckoman@nc.rr.com)

# VIEW'S FROM THE FIELD



Pictures by Robert Vess



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## How much side thrust and down thrust should be used?

Les Bond contacted me, asking about thrust lines in models.

He wrote :-

*Andrew, it is accepted as normal that an aeroplane with an i.c (gas) engine has side thrust and down thrust built in as standard. But this does not always seem to be the case with aeroplanes with an electric motor. Some plans have side/down thrust built in but others do not. Indeed, some designs I have seen have what I would call an extreme amount of down thrust built in.*

*Can you advise me please, are there any rules that can be applied here to determine if side/down thrust should be used, and by how much. Also, what do you suggest should be done, if converting from an i.c aeroplane to electric power? Would you retain the original thrust lines, or would you not. I'm hoping that you can shed some light on this matter.*

### Andrew's answer

Hello Les, and thanks for your interesting question. As a general policy, I would tend to stick with the original i.c. design's thrust lines. However, if you are installing significantly greater power than the designer intended then increasing the side and down thrust may be beneficial.

### Down thrust

Downthrust is applied to reduce the pitching up tendency that naturally occurs with an aircraft which has a thrustline below what can be called the 'centre of drag'. All airframe components produce drag, but the location of the wings is a particularly important variable in this matter, since wings are a significant source of drag. For example, the high wing of a Cessna 152 results in a relatively high 'centre of drag', which means that when power is applied the nose will tend to pitch up. So, a significant amount of down thrust may be added even though this is a low power design. Conversely, the low set wing of a typical WW2 fighter results in a lower 'centre of drag' line, so less down thrust may be required even though high power will typically be installed.

Many modelers see the pitching up characteristic under power as a 'fault' and seek to remove it with TX mixing and/or by adjusting thrust lines. However almost all of the types of full size aircraft I have flown, including training machines display this exact same characteristic so I don't necessarily see this as a fault in models. That said, it needs to be appreciated that while full size aircraft tend to be flown for long periods at a constant power setting, our models are often flown in a different way, so there's a good case for making their trim requirements less demanding.

### Side thrust

Concerning side thrust, generally speaking the more power is installed in a model the more side thrust may be desirable in a given design. The reason for building in side thrust is to help counteract the asymmetric forces which result from using a propeller to power an aeroplane. One such force results from the fact on a conventionally powered model aeroplane (prop rotating anticlockwise when viewed from the front), the prop wash will hit the fin not straight on, but slightly from one side, which produces a yawing force.



*This picture of a WW2 Corsair clearly shows that the prop imparts a swirl to the airflow, causing it to hit the fin at an angle. This produces a yawing force, typically causing the nose to want to swing to the left.*

The yawing forces produced by a rotating prop can be very considerable. One illustration is that for many high powered WW2 fighters, where full power could not be applied during the take off roll until enough airspeed had been accumulated to allow the fin and rudder to achieve enough authority to counteract the yawing tendency (mostly, but not entirely caused by asymmetric propwash). I remember reading of one WW2 fighter where full power could not be used at all during the take off roll, otherwise the aircraft became directionally uncontrollable.

Some high powered full sized aircraft such as the WW2 Hurricane fighter used an offset fin and rudder to counter this yawing tendency, but this design solution applies a corrective measure regardless of the amount of power applied so in some senses it may not be such a good solution.

However, given the high power of WW2 fighters and the relative inexperience of some of their pilots, a combination of side thrust and offset fin may

well have been the best solution for the day.

The presence of a nosewheel will help to counter the yawing tendency, reducing the amount of corrective rudder required. However, taildragers often need significant, carefully applied amounts of right rudder during take off, especially on very smooth surfaces such as concrete.

### **How much side and down thrust should be used?**

Coming back to your question (at last!) we now have an appreciation of the main factors affecting the amounts of side and down thrust that may be appropriate in a given situation. A design with a good pedigree can be expected to accurately specify suitable values of down and side thrust. However, it's worth being aware that published model aircraft designs do vary in quality, and sometimes the angles shown are not necessarily optimum for that design.

Whether the model is powered by an electric motor or an i.c. engine will make no difference on its own to the model's flight characteristics – the model has no awareness of how the prop is being made to turn. Modern electric power systems can easily be very powerful, perhaps even exceeding the power of a typical alternative i.c. engine. It may be worth allowing for the fact that the model's thrust line may need to be adjusted after testing its flight performance, particularly if you wish to install a relatively high power system. Our models tend to be relatively more highly powered than full size aircraft, so if your model is a scale subject then it may not be enough to copy the full size example's thrust line.

Prop theory is incredibly complex, and for the purposes of this discussion I've confined my answer to a reasonably direct response to your question. However, bear in mind that there are several other prop issues which will affect the behaviour of models, such as torque reaction, gyroscopic precession and the P factor. These can be discussed on another occasion. In the meantime, I hope this discussion helps you out and answers your question!

**This article kindly supplied by Andrew Gibbs of [www.gibbsguides.com](http://www.gibbsguides.com).  
See the [Gibbs Guides website](http://www.gibbsguides.com) for further articles and guides.**



# E-FEST REPORT FROM BOB RICHARDS

What an awesome event. The only negative is the parking, which sucks. Only one small loading/unloading area (can park maybe three or four vehicles) and the very small parking lot next to the armory is way too small, and does not open up until after 5:00pm on Friday. Getting a group and pulling a trailer makes it much less expensive, but makes it a bigger pain when it comes to parking. I ended up with a \$50 parking ticket when I parked in the area designated on the website, but found out that this was not available to us except on Saturday and Sunday. I did call and explain the situation, the ticket was taken care of, but it was still a pain.

The event is held in the Armory, which reminds me a lot of a blimp hangar. It has a full size track indoors, which is probably the only way some of the athletes could practice during the winter. Imagine an area the size of a football field indoors, and probably only the best football punters could hit the ceiling. Although no one did, it would be easy to fly the Parkzone T28 in there if the whole area was used. They had three different flightlines, though, so the whole area was not available from any of the flightlines. There was an area for 3D and helis, another for general (traffic pattern) flying, and one corner for micros (Vapors, etc).

We drove through the night and arrived about 10:00am. Took us 14 hours, with a little over 1 hour of that being for stops. Mike Farlow, Vann Jeter and Blake Wilson rode with me. Jeff Phillips and Keith Kenner flew in later, while I hauled their stuff up there. I also hauled most of Fred Midget's stuff (he was a vendor selling his HPP wares). We managed to catch about 1/2 of the precision aerobatics competition which was awesome. To some people, precision aerobatics is boring, but to me it really shows the skill levels of the fliers. Some that are well known for 3D did not do well in precision. However, Andrew Jesky and Jason Noll finished 1st and 2nd respectively, and showed why they are really among the top pilots in the world. I don't know how the others placed, except for RJ Gritter, who was 6th I think.

Since we were not able to bring our stuff inside until 3:00pm, we helped with the setup, including tables, the protective netting, etc. We were then able to grab some front row tables. I got a couple of flights in on my Hoverdisk before we left Friday night.

Saturday was busy, both with flying, strolling the vendor row, and seminars that were going on all day. I attended two of the seminars, one was on molding depron, the other was on radio setup (Futaba) hosted by (among others) Andrew Jesky. Good information on both.

I did not do any flying on Saturday, the lines were long and there was a lot to watch. The demo flights were spectacular. RJ Gritter does a really awesome job, especially with the reversible pitch prop. I'm sure Fred has some good video on his flight-pass website.

The pylon and combat events were amazing. I said last year that I wanted to return with something to compete with, but dragged my feet and showed up with nothing. Next year, though..... 🤔 I seriously think that a 2EZ on 2 cells would rock! Has to be under 100z, though.

I did get in several flights on my Hoverdisk on Sunday. Suffered a midair with Mike Farlow (we were horsing around together). As I went out to pick up my fully deflated Hoverdisk, some guy met me and handed me another Hoverdisk envelope, NIB. Don't know who it was, but I thought that was pretty cool. I ended up patching mine and flying it again, though.

All the fun I had more than made up for the parking situation. One thing that helped was to leave the trailer at the hotel on Saturday, then move it to the parking lot on Saturday night after most people had left. It was then a very simple matter to walk across the street to load it up, at a leisurely pace, on Sunday. Then all I had to do was to hitch up and leave when ready. Will plan to do that again next year.

😊😊😊😊😊

Thanks Bob!!

To see the pix go to [www.flyinggiants.com](http://www.flyinggiants.com) and/or [www.rcgroups.com](http://www.rcgroups.com)

And search for E-Fest

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**Newsletter**

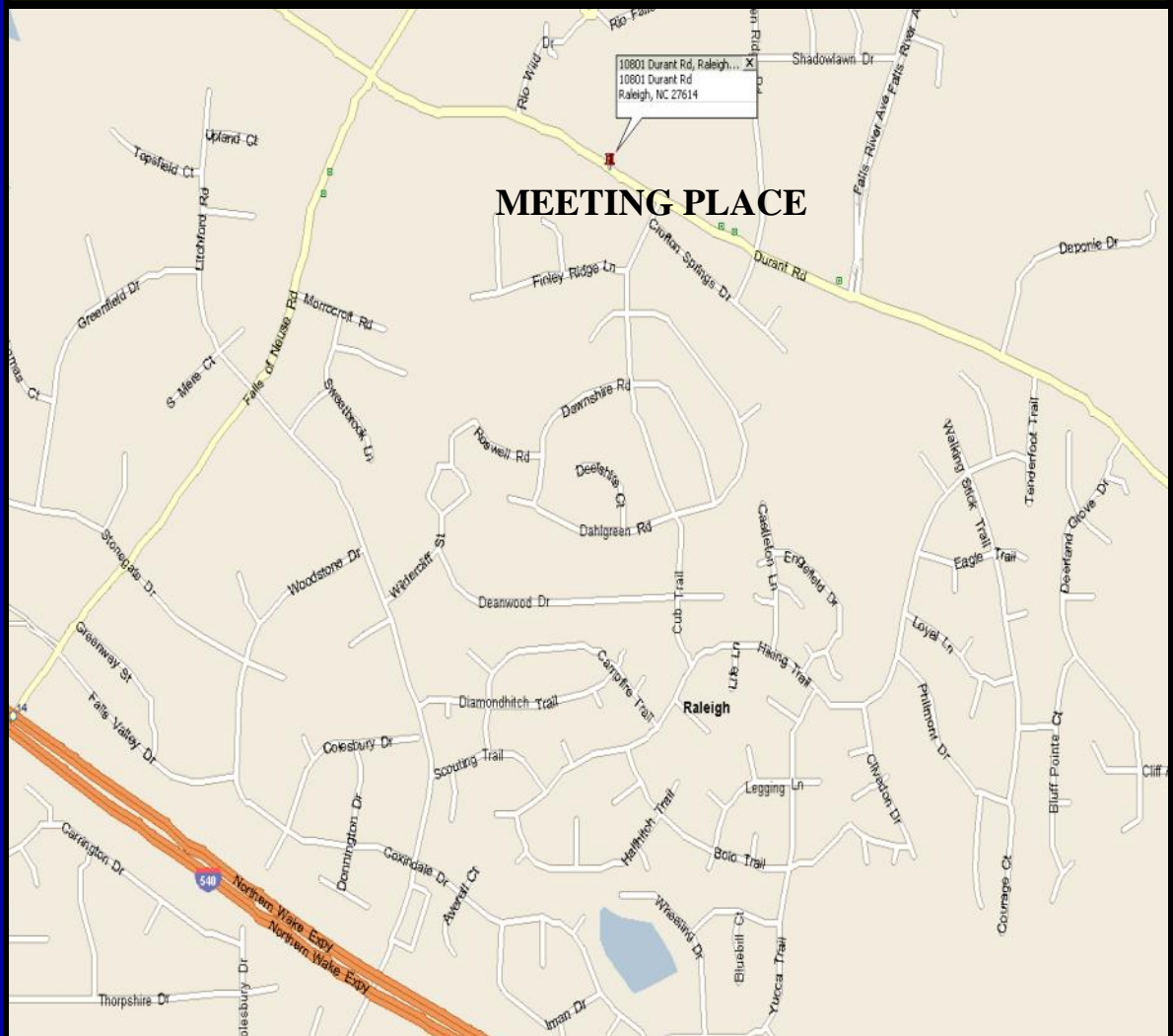
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**Submittals:**

All club members are urged to submit material to be published in the newsletter. The material should be received by the second Saturday of each month. Text is easily submitted in the form of regular mail or e-mails sent to my address above, photos can be attachments in any format that your camera produces (or scanned photos).

**Next club meeting February 24th 2010**



**Thoughts from the slipstream :**

**Well, here it is...your 'new look' newsletter. Send me some feedback on what you think, what you would like to see included/ deleted/left alone. This is YOUR newsletter, so why not help to make it something worth reading each month?**

**There will be a 'low-res' issue sent out in email and, for those who want it, a 'high-res' issue up on the website for download.**

**Articles, pictures, workshop hints and tips, can be sent to me at [rcgeckoman@nc.rr.com](mailto:rcgeckoman@nc.rr.com) and they will be published in the next available issue!!!**

