### Raleigh-Durham Radio Control **March 2010**

**OFFICIAL NEWSLETTER** 



Volume 19, Issue 3

### Prop-Wash PRESIDENT'S

61- AL

Amazing! It's March already, and flys in are starting to pop up everywhere now. As I write now, Josh Bunn is making final preparations for his annual IMAC meet, and we're getting things together for our Spring Fly In at RDRC April 17th. Just for the record..... It's a Fly ANYthing event, so we want to see YOU there! If only one thirds of our membership showed up and registered, we'd have big numbers on the sheet! O

L arry L ewis course we're not the only ones hosting a fly in in the near future. Piedmont Aero Modelers will be hosting their annual Giant Scale Meet in two weeks. Jacqui has been working hers thumbs out a little on the Gee Bee, and I even flew one of my 3D planes this past Sunday. I just wanted to make sure it still flew! Well....actually.. Robert and Josh have been giving me a hard time about not dragging them out anymore! A lot of interest lately has been in the direction of Raider Racing! That's right. I'm ready to go fast turn left! Several club members have been out lately tuning on their Raiders in preparation for the new summer fad. So far every ones Raider has behaved very nice, and most have required very little trim. This past Sunday a few of us were practicing turns and......Well...... Mark Lofgren might have had a little problem!!!!!! All is good though, and I think he has another one on order now.

Of course, OUTDOOR meets are not the only game in town. Recently several of us from RDRC traveled down east a little ways to hang out with the Tar Heel Flyers for their first Indoor meet.

Mike Winstead and crew did a job of organizing the meet, and they even had an aircraft carrier to do touch and go's on! We had an awesome time, and I believe they have another meet schedule for April 2<sup>nd</sup>... Keep your eyes and ears open for that.

Oh, a few of us are working on something REALLY cool, and hope to have good news for you all soon. Mike Hollowell, Myself, and Robert Vess are working to get NC's first Jet Meet going. We've always thought it was a shame we had so many turbine powered planes in our state, yet no fly in to support them. Of course, if this does come to be, it wont be held at RDRC. Jet meets take a lot of runway, so we're attempting to secure a much better site to pull this off. We'll let you guys know more as we do. If you ever get a chance to attend a jet meet, DO IT! Its guite an awesome event to watch.

## TICK ALERT\*\*\*\*\*\*\*TICK ALERT\*\*\*\*\*\*\*\*TICK ALERT

That's right gang. The ticks are out ALREADY! After Mark Lofgrens tree pruning act this past Sunday, He, Bob Richards, and Jacqui all walked out into the trees to retrieve Marks carnage. Later when Jacqui got home, she discovered (much to her horror) not one, but two ticks had taken a ride on her belly! Of course this was all announced to me via a horrifying scream!!! Turns out, it's the first time in her LIFE she has ever gotten tagged by one. Geezzz..don't they have ticks up north????? Anyway, I called Mark the next day and sure enough, he was a carrier to! Not sure about Bob Richards. He said he only showers on weekends, and it would be next week before he'd checked! LOLOLOL

So please. If you guys walk around the woods or even out in the fields across the runway, check yourselves. You too Bob. Hehehehe

Some of you may have noticed a familiar face at RDRC lately. Our good friend of the north Jerry Willette has been down on one of his southern fly tours. I think every time I checked the field cameras. He's been on them! We're always glad to have Jerry down and hope he makes it down more often in the future. Not positive, but I believe he said this might be his permanent home once he retires.

### Jerry Willette....Come On Down!!!

Well, it looks as if Old Man Winter may finally be loosening his grip on us. We've had many nice spring like days to fly in lately, and activity is really picking up. Not that we haven't had a lot of action all winter long! We're blessed her in NC that we can fly all year long. Provided you own a good winter jacket! And of course, there has been no shortage of rain. I think this is the wettest ( is that REALLY a word?) I've seen the field in years. In fact, we have developed some nasty mud puddles around each of the flight stations because of this. Not to worry. At last months meeting we voted to make minor improvements to the flight station area. If you haven't heard, one of our members owns a cement mixer!!!!! Plans are to pour larger concrete pads at each station and grade the dirt level to the pad. This will be a nice upgrade to our field. Thanks "Member with the Cement Mixer"!!!!

Before I go this month, I want to send out a big *Get Well Soon* to our dearest friend Jim Charbonneau.



As most of you know by now, Jim was recently diagnosed with an aggressive form of Leukemia. Jim was admitted into Duke Hospital and he is currently undergoing chemotherapy. Please take time in your day to pray for our buddy so that we can have him back with us at RDRC soon. Jim is in high spirits, and says HE WILL beat this. He's a tough cookie, and we all know he will do it. We miss you very much buddy...... We look so forward to seeing that smile on the flight line again.

Until next month,

Larry

To send a card to Jim in the Duke hospital you can use the following link

http://www.dukehealth.org/patients\_and\_visitors/ecard/ecard\_form\_

patient Information \* First Name: Jim \* Last Name: Charbonneau • Room number: 9127 Link sent in by Jim Page, THANKS JIM!!









J ason J arvis

# A Few Words from the VP

It's almost spring! The days are getting longer, we finally got our extra hour back and we broke not only 60, but 70 in the last few days. It's time to get those planes out of storage and out to the field! I can't believe how much I am looking forward to flying season and fly ins.

Serious business, I have printed, laminated and mailed more membership cards than I can count. I have discovered just how hard it is to buy stamps these days, and how much it costs to replace ink cartridges. **It's all worth it though, everyone who renewed or joined at or before the February meeting should** have their card by now. **If for some reason you don't, please get in touch with me so I find out what went** wrong in the process and get it to you. We need to remember our agreement to display our cards while at the field, and at this point pretty much everyone should be renewed and have a new card.

One last thought, lets all keep big Jim Charbonneau in our thoughts. Jim is a great guy who does a lot for this club, and is going through some medical issues right now. Get well soon Jim, we'll see you at the field before you know it !



Now, back to hinging ailerons..... Jason





### Minutes of RDRC meeting

### **By: Secretary Dave Hockaday**

### Minutes of the RDRC Meeting February 24<sup>th</sup>, 2010

- The meeting was called to order at 7:30 by President Larry Lewis.
- Larry discussed the Fly-for-Tots 2009 article in Model Aviation magazine
- Larry recommended calling / e-mailing Jay Smith and thanking him for the excellent article.
- Discussed sending check presentation pictures and information for publishing a possible follow-up article.
- Anderson Wiencek, Bob Thornburg and David Torres were guests.
- 26 were in attendance.
- David Torres asked about area hobby shops, all known hobby shops were mentioned.
- The secretary's report was read by Jason Jarvis in his best impersonation of Dave Hockaday who was unable to attend. The report was passed, yeah man, right on.
- Treasurers report was given by Dustin Hedrick. Dustin stated that we have total funds of \$8,357, and are slightly short of budget. Larry Lewis reminded Dustin and the members that the treasurer's report will be posted on line quarterly.
- The safety officer's report was given by Mark Lofgren. Mark stated that is has been too cold to fly, so there are no incidents to report. Spring check out of planes stored for the winter was discussed.

### Old Business

 Spring Mall show discussed. Contact has been made with North Hills, who are interested in hosting us. Jason Jarvis will meet with someone from North Hills to discuss options. Discussed postponement of shed project due to budget.

### New Business

- Discussed additional fund raising opportunities for Fly-for-Tots, possible donation for parking.
- We currently have an extra flight station in place, left over from Fly-for-Tots, this station needs to be removed.
- Discussed improvement opportunities
- o Gravel or concrete pads for flight stations
- o Pad for building
- o Gutters for shed
- o Shingle mulch
- o Addition of electrical outlets.
- Roger Williams volunteered a concrete mixer for field improvements
- It was noted that Jacqui Lewis donated the new window treatments for the Pullen House, as a result our fee for using the meeting area was not increased.
- There was no contest report.
- Business meeting adjourned at 8:14
- Show and tell items included Blair Prices VFO and Larry Lewis' Raider, Spektrum AR500, AR6110 and 4Site.





Safety Officers Report

Mark L ofgren SAFETY FIRST Two important safety issues are occurring at the field and need everyone's attention. Only five aircraft are to be in the air at the same time, and the pilots MUST be at one of the five flight stations. No one is to be flying any kind of aircraft in the pits or adjacent to the pits. The only deviation from this safety rule is that helicopter pilots can practice hovering at the south end of the field near the old barn if there are no vehicles parked there. Hovering only, no flying. We all focus our attention on the aircraft we are flying sometimes to the detriment of others. A pilot calling out for a landing should not have to call it out multiple times in increasing volume before others pay attention. It is difficult to believe that calls for a landing are being ignored, but sometimes it seems to be the case. A spotter might be in order if requests from other flyers are difficult to hear or if you need a spotter to tell you where your aircraft is in relation to others. Multi-tasking is in order...fly your aircraft , pay attention to what is going on around you, and be courteous. And as always, all hucking, hovering, low passes, and zoom-and-booms are to be performed on the east side of the runway over the grass. NO aircraft regardless of type, construction, power plant, or pilot's skill level is exempt from these safe, mandatory practices.

Mark Lofgren clipclop@mindspring.com





# Seen on the Reflector...

Dear friends,

I just want to thank you all for all your cards, emails, and phone calls these last couple of weeks. They have meant a lot to me.

Things are going very well for me. The procedure was a success and I am pretty much back to normal activities. And best of all, I feel great. I can't believe the difference in how I feel since the procedure.

Thanks again to all of you for your kind thoughts and prayers. This is the best club ever!

Sincerely, Blair





### **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 If anyone wants to chip in, we'll pass along the rotating security codes to those who support the system.



### The care and handling of A123 battery packs.

A123 batteries are Lithium Nano Phosphate chemistry. They have the following characteristics. High current output, up to 60C (C=capacity of the cell in milliamp hours).

Fast charge capability, can be charged at up to 10 amps.

Rugged laser welded aluminum can.

Little or no self discharge, charge them today and they will still have 95% of their charge in 3 months. Can be discharged/recharged 1000 times minimum.

3.3v per cell nominal voltage Voltage regulators are not required on receiver installations. A 2 cell A123 pack is approximately the same voltage as a 5 cell NIcd or Nimh pack and can be used anywhere that a 6V Nimh pack would apply.

Charging--A123 packs must be charged like any lithium cell using a charger that complies with the CCCV protocol. The difference between these cells and Lipo or L1-Ion is that the charge must cut off at 3.6v per cell instead of the more common 4.2v. You must use a charger that has this capability. It is permissible to overcharge A123 cells up to **4.2v per cell, however this will not add more power and repeated overcharging will significantly reduce the cell's life** span.

How do I check A123 packs? A freshly charged 2 cell pack will have a voltage around 7.2 volts, basically the same as a freshly charged 5 cell Nimh pack. The A123 pack will rapidly decline under any load to 6.6 volts and will then hold at 6.4 to 6.6 volts until it is nearly depleted.

Therefore it is not possible to determine the charge state with a voltage tester, not even one with a substantial load. The only way to determine how much battery is left is by calculation.

You can expect a fully charged 2300mah pack to be able to supply about 20 amps and stay at or above 5.00 volts for a capacity of 2000 mah. When you have drawn over 2000mah expect the voltage to drop off rapidly.

Here is how to determine the charge condition of your pack. Starting with a freshly charged battery pack either devise some type of discharging circuit like a light bulb or use it in your airplane. Assuming you are using it in your plane on your radio receiver/servos make one flight with your plane. Recharge the pack and observe how much power is added to the pack, it will probably accept something like 200mah on a small plane up to maybe 500-600 mah on a large plane and a long flight. Now, with your freshly recharged pack make two flights and recharge again. The amount of power added should be roughly twice what you use on the first flight. You can continue this procedure to 3 flights. At this point you should have a good idea of how much power your plane uses per flight. Since a single 2300mah pack will deliver full power up to about 2000mah, I have a rule that I never start a flight if my calculations tell me that I have used 75% (1500mah) of available capacity. With a plane that uses 300mah per flight this would mean that I can make 5 flights with plenty of safety margin but my rule says recharge before making a sixth flight. Using this rule I have never had a battery failure in 2+ years.

If you are using dual battery packs then the capacity numbers will double, but you should charge the packs separately and observe how much power each pack will accept. If you find a significant difference you should account for the difference before venturing too far into discharging.

Caution do not fully discharge-- A123 packs like any lithium battery must not be fully discharged. If you discharge the pack to less than 1 volt per cell it is likely that you will ruin the battery/pack and the warranty will be voided. So be careful not to leave switches on after you are finished using these batteries.

Balancing-- A123 packs do not need to be balanced at every charge, but it's a good idea to balance-charge your pack approximately once per 10-15 charge cycles. This will prevent a condition where one cell can get slightly out of balance and then gets progressively worse at each charge.



### THE WEIGHT IN YOUR PLANE -- WHERE'S IT AT?

-by Clay Ramskill

ei-

Every kit we buy will show where the point of balance is supposed to be, and it's up to us to see that it gets there. The point of balance is the front to back measurement of where the center of gravity (CG) should be.

The CG placement is a VERY important part of how any plane is going to perform, essentially adjusting the plane's pitch stability. If the CG is too far to the rear, the plane will have marginal stability. That is, it will take very little elevator movement to effect a significant pitch (and angle of attack) change. A plane with an aft CG

will be very quick to respond in pitch and will not be inclined to seek out a trim position. With a forward CG, a plane may require some "up" elevator to fly -- and will require a lot of elevator movement to make any pitch changes. However, if upset from a trim attitude, it will very quickly try to regain that attitude. In short, the farther forward the CG, the more stable the plane, pitchwise. A plane that is too stable will seem "sluggish" when maneuvering -- with a more aft CG, and a less stable plane, the terms might be "sensitive," or even "skittish." In some more extreme cases, the term has been "unflyable"!!

While on the subject of balance, let's not forget LATERAL balance. The plane should be balanced laterally, as well as longitudinally. Just an ounce of weight in a wingtip for lateral balance can make a big difference in whether your wings stay where you want them while manuvering! But there's more to weight placement than CG. Weight DISTRIBUTION also can affect a plane's performance. The farther out in "the ends" (of fuseleage and wings) weight is located, the slower a plane moves initially to control inputs.

Imagine, for instance, putting a half-pound weight in each wing tip of a plane. That plane will eventually have the same rate of roll -- BUT, due to the inertia of the weights, it will take a while longer to achieve that rate. The same goes for pitch -- if we have a heavy engine, well forward of the CG, we will have to compensate by moving servos and batteries (and maybe add lead) aft in the fuselage. Inertia from that weight distribution will cause a slower initial reaction to elevator control. The same reasoning concerning weight in the ends of the plane also applies to directional control, slowing down reaction to rudder inputs. Note that overcoming inertia is applicable both when we begin or end a maneuver. The plane with weight "in the ends" won't be as "quick," but will tend to be "smooth." This isn't all bad -- in a trainer or pattern plane, for instance. But a plane that is too heavy out in the wingtips is another matter - we may be able to cope with having the plane respond slowly to start rolling; it's really tough to contend with a tendency to keep rolling when we neutralize aileron controls!

The same goes for spin entry and recovery; our "heavy ended" plane won't be nearly as quick to enter either a snap or spin - but more importantly, it won't STOP snapping or spinning as promptly, ther!

So, by all means, keep your plane light, if you can - but remember, perhaps even more important is - where's that weight AT?





This appeared in a recent issue of Australian Aviation Magazine

1. Every takeoff is optional. Every landing is mandatory.

2. If you push the stick forward, the houses get bigger. If you pull the stick back, they get smaller. That is, unless you keep pulling the stick all the way back, then they get bigger again.

3. Flying isn't dangerous. Crashing is what's dangerous.

4. It's always better to be down here wishing you were up there, than up there wishing you were down here.

5. The ONLY time you have too much fuel is when you're on fire.

6. The propeller is just a big fan in front of the plane used to keep the pilot cool. When it stops, you can actually watch the pilot start sweating.

7. When in doubt, hold on to your altitude. No one has ever collided with the sky.

8. A 'good' landing is one from which you can walk away. A 'great' landing is one after which they can use the plane again.

9. Learn from the mistakes of others. You won't live long enough to make all of them yourself.

10. You know you've landed with the wheels up if it takes full power to taxi to the ramp.

11. The probability of survival is inversely proportional to the angle of arrival. Large angle of arrival, small probability of survival and vice versa.

12. Never let an aircraft take you somewhere your brain didn't get to five minutes earlier.

13. Stay out of clouds. The silver lining everyone keeps talking about might be another airplane going in the opposite direction Reliable sources also report that mountains have been known to hide out in clouds.

14. Always try to keep the number of landings you make equal to the number of take offs you've made.

15. There are three simple rules for making a smooth landing. Unfortunately no one knows what they are.

16. You start with a bag full of luck and an empty bag of experience. The trick is to fill the bag of experience before you empty the bag of luck.

### 17. Helicopters can't fly; they're just so ugly the earth repels them.

18. If all you can see out of the window is ground that's going round and round and all you can hear is commotion coming from the passenger compartment, things are not at all as they should be.

19. In the ongoing battle between objects made of aluminum going hundreds of miles per hour and the ground going zero miles per hour, the ground has yet to lose.

20. Good judgment comes from experience. Unfortunately, the experience usually comes from bad judgment.

21. It's always a good idea to keep the pointy end going forward as much as possible.

22. Keep looking around. There's always something you've missed.

23. Remember, gravity is not just a good idea. It's the law. And it's not subject to repeal.

24. The three most useless things to a pilot are the altitude above you, runway behind you, and a tenth of a second ago









Hi guys, there's an update to the upcoming indoor fly in. We had to find a new venue due to unforeseen costs that made the event cost-prohibitive.

\*\*VENUE CHANGE, STILL TENTATIVE\*\*

Foley Manufacturing & Hobbies and the Tarheel R/C Flyers are hosting an indoor fly-in on Friday, April 2nd -

When: Friday, April 2nd, 2010, 7:00 - 10:00 PM Where: Greenfield School gymnasium, Wilson NC What: Indoor electric fly-in How much: \$5 landing fee

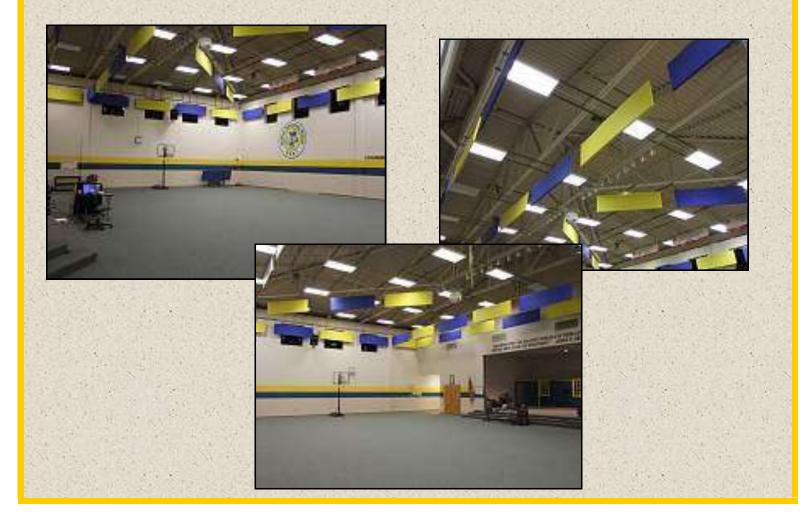
\*\*UPDATE\*\* There has been a venue change. Pending approval from the school Principal (the Athletic Director has already approved), this will take place at Greenfield School in Wilson, NC. Again, the status of the event will be updated as information is received.

Due to the liability requirements of the school, current AMA membership is required.

We will be checking membership at the door so please make sure you're current.

For those that went to the indoor fly-in at Pinetops Baptist Church, Mike Winstead will again be bringing his aircraft carrier. Start practicing those landings!

The address is 3351 NC Highway 42, Wilson, NC 27893-7772. Use that address for GPS, or follow this link for directions. Hope to see you there!



2<sup>nd</sup> Annual Big Bird FlyIn

Modices - Upcoming Events

# Fork Union Cloud Kings United Pilots Society

# **Date:** May 1<sup>st</sup> and May 2<sup>nd</sup>

Place:FCRCFC field11206 w river rd, Fork Union, VA 23055Time:8 am to 4 pmPrice:10.00 landing feeMore information contact Cliff Lewis at4349538779 or clewis600@yahoo.com



Raffles on both days. Food and drinks for sale on both days. Grass runway, RV welcome with no hookups. Vendors welcome.



### GREAT NEWS EVERYONE!

Ever since Frank announced that the Mid Atlantic Jet Rally has been cancelled for 2010, Larry Lewis, Michael Hollowell, and I (all from Raleigh, NC) have been trying to give everyone their Memorial Day weekend jet fix by trying to put together an alternative event on the East coast. Michael suggested a very good site, managed to get meetings with the proper authorities, prepared a presentation, and met with them along with Larry this week. As a result of these efforts, we now have something very exciting to announce:

the inagural

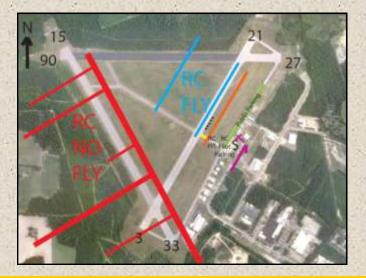
FIRST IN FLIGHT Jet Meet May 28-30, 2010 Wilson Industrial Air Center (WO3) Wilson, NC

The site is absolutely amazing, it's located a mere 2 miles off of I-95, and there are many great hotels and restaurants right at the interstate. Here's a picture of the preliminary layout that Michael put together.

We don't intend to take over the dates regularly held by the Mid Atlantic Jet Rally. We'll just use them this year to give everyone a good opportunity to fly somewhere per their usual annual holiday travel planning. We'll pick a different date for subsequent years since we intend to hold this annually from this point onward. Heck, another East Coast jet meet has been needed for quite some time.

We'll start a dedicated thread to provide all the details and handle all the event chatter but I just wanted to inform all you East Coast jet jockey's here first!

First posted on Flying Giants.



Great Britain R/C Aerobatic Association

### BASIC TRIMMING for AEROBATICS Please read the preamble and end notes fully.

This chart assumes your aircraft was built accurately and you have set the Centre of Gravity **close to the manufacturer's recommendation. Your aircraft has been designed to fly at or be**low a given weight and a heavy aircraft may never fully satisfy the conditions of this chart. Working through the chart you may have to accept some compromises, but time spent trimming will be well worth the effort. These tests should be carried out in reasonably calm weather.

The Basics

1 Trim your model for straight and level flight with the engine set at just over half throttle. Models smaller than two metres may need a slightly higher throttle setting but full throttle should not be required. If you have tailplane incidence adjusters it is assumed that you have trimmed out the inaccuracies to leave the tailplane and elevators level. Check that all servo throws are matched to recommended settings and there is no play in the control linkages.

Engine Thrust Line

- 2 Hold straight and level flight at just over half throttle then smoothly increase the throttle to full. Model climbs Increase down thrust. Model dives Decrease down thrust.
- 3 Fly straight and level pull to the vertical.Model pulls to the left Add more engine right thrust.Model pulls to the right Decrease engine right thrust.

### Balance: Centre of Gravity

- 4 Fly straight and level, increase the throttle to full and pull to a 45° climb.
- Hold the 45° line then roll to inverted.
- After rolling inverted, down elevator has to be used to maintain the 45° line Add weight to the tail. If the model climbs Add weight to the nose.
- 5 If any changes to the thrust line or CG have been made go back to 1.

Wing Incidence. The degrees of incidence should be related to the datum line of the model. For ease of comparison it is sometimes related to the centre line of the tailplane airfoil. The two reference lines may be different.

6 Start high and reduce throttle to tick over, dive in a straight line. Model pulls to canopy Reduce wing incidence.

Model pulls to belly Increase wing incidence.

Model pulls to canopy I Model Pulls to belly E

Increase tailplane incidence. Decrease tailplane incidence.

7 If any incidence is changed go back to 1.



Lateral balance

8 Fly model towards you and pull a tight loop. Repeat for outside loop.

Wing drops at exit OR Add weight to high wing tip.

Roll model inverted at half throttle. Wing that drops is the heavy wing Add weight to other wing.

### Aileron differential .... to help achieve axial rolls

9 Fly model towards you and pull into a vertical climb. Then half roll.

If after the half roll your model changes heading.

In the same direction as the roll. Increase alleron differential. (up going alleron to move further than down going alleron). (i.e. If the roll is to the right and after the half roll the models heads to the right) Opposite direction to the roll Decrease alleron differential.

Dihedral: To change - the centre joint, or the wing tube sockets would need to be repositioned, an electronic control mix may be considered to be an easier compromise here. 10 From straight and level flight, roll to knife edge, hold top rudder to maintain level flight.

If the model rolls to inverted Increase dihedral.

Model rolls back to upright Decrease dihedral.

Trimming should be a constant concern to make the most of your model and it is expected that you may have to revisit the above chart to improve your models flight characteristics. Always make one adjustment at a time and check the effect thoroughly before making any further adjustment. If all the above suggestions do not achieve the desired results, electronic mixing of the controls must be considered, for instance if to maintain a flat turn through 360° the nose drops, mixing some up elevator to react to 80% rudder may solve the problem without affecting other manoeuvres like knife edge fight where less rudder may be used, or you may wish to program a switch to apply the mix when required. Another example is that it will be a lot less work to apply a mix than change the dihedral, but whichever you choose the objective is to reduce the workload on the sticks whilst flying a schedule. There are some highly regarded pilots who are said to rely **more on electronic mixing than mechanical trimming to achieve their 'required feel'. So trimming is an in-**dividual art which you need to develop with time and experience. This guide is intended as a starting place.

For those wishing to correct a basic design fault it is worth knowing the first action should be to decide on a fuselage datum line, this is the line you wish the fuselage to assume when flying straight and level, the way it sits in the air. All other incidences, (main wing, engine down thrust and tailplane) are then set with reference to this line. Rudder hinge line angle and proportions of the rudder are also very important.

The whole concept of going to these lengths to trim your model is to reduce the workload to correct your model in flight so you can concentrate on flying the schedule accurately.

Thanks to many members, past and present, and reference from other sources to compile this chart. A C Hoyland. PRO GBR/CAA March 2007.







### RDRC 2010 Officers

#### President: Larry Lewis 919-231-4983

Vice President & Membership Secretary: Jason Jarvis

rclarry@aol.com

### jjarvis@nc.rr.com

Secretary: Dave Hockaday 919-554-2154 wb4iuy@teara.org

Treasurer: Dustin Hedrick 919-559-7153 <u>dust176@yahoo.com</u>

### Safety Officers : Anthony Wiencek 919-786-2546 av.wiencek@gmail.com

Mark Lofgren 919-368-2908 <u>clipclop@mindspring.com</u>

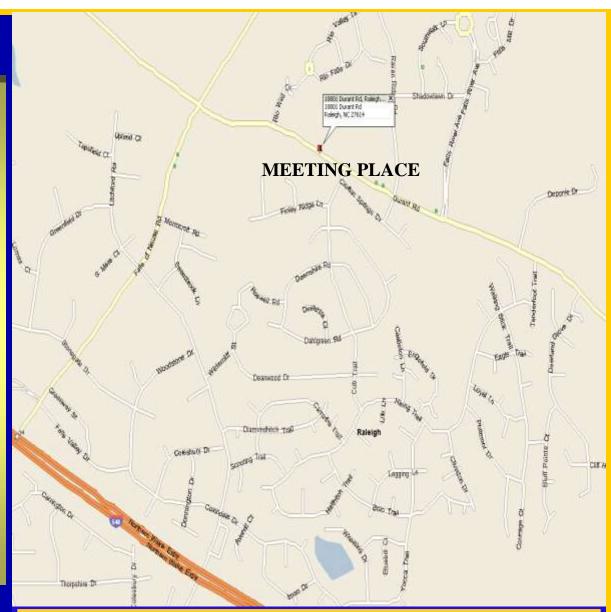
### Newsletter

### **Editor:**

Dave Langridge BEM 1019 Askham Dr Cary, NC 27511 919-475-5081 rcgeckoman@nc.rr.com

### Submittals:

All club members are urged to submit material to be published in the newsletter. 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).



### Thoughts from the slipstream :

This is YOUR newsletter, so why not help to make it something worth reading each month? If each member sent in ONE email tip, that alone would give me enough for 14 MONTHS of how-**tos...all** it takes is 5 minutes of your time and your hint/tip could save someone a heap of pain and hassle. Just click on <u>this link</u> and email me your tips!!

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 and they will be published in the next available issue!!!

