



# JANUARY 2009

**DCRC Club Meeting**  
**Friday 1/16/09 7:30 PM**  
**Montgomery County**  
**Council building**  
**100 Maryland Ave**  
**Rockville, MD**  
**Meeting program:**  
**Walt Gallauger, Auto**  
**Air Paint**  
**Meeting Raffle:**  
**E-flite indoor Helicopter**

## NEWSLETTER

Volume 55, Issue 1

Discovery Sports Center opens their doors to the DCRC Club for indoor flying



L to r Joseph McDaniel, Nir Schweizer, Jim McDaniel, Tom Pfarr, Allan Hoffman, Dave McQueeney, Doug Harper, Andy Kane

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**[www.dc-rc.org](http://www.dc-rc.org)**

*Did you know that any airplane brought in to the model shop will receive 3 free raffle tickets. Bring in your models each month for your free tickets, and to share ideas.*

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**Cover:** Board testing out the Discovery Sports indoor arena for electric flying. Retro Newsletter header from the 1970's

## Presidents corner

By Andy Kane



Last month the DCRC Club got the use of the Discovery Sports Center (Soccerplex) as a test for flying indoor electrics. It went very well and we have secured the facility again for January, 14th 2009 from noon till 4 pm.

We have the use of the entire indoor facility which consist of 2 practice sized indoor soccer fields. The floor is Astro-Turf and the fields are separated by a netting. Any micro sized plane will work as well as any F3P indoor aerobatic plane , foamy or helicopter.

Please feel free to join the group and fly your indoor electric fixed wing or helicopter on Wednesday. We will make further arrangements for the facility as needed for the remainder of the winter.

Having this indoor facility is a great plus for the club and we want to use it as much as possible during the inclement weather. Keep the rust off your thumbs and keep ready for spring.

Now lets think about getting your planes ready for spring, Now is the time to schedule those minor and maybe major repairs to your favorite plane. This way when the spring does come, you will be ready to enjoy the outdoor flying site.

This spring we will be calling on you for a spring clean up at the field, to get ready for our opening day, (Normally in April). If you have any suggestions or concerns about the field please bring them one of your board members so we can address the issue and have our field ready for the upcoming season.

Dues: I hope you brought your membership account up to date. Please provide a copy of your AMA card along with your dues payment or you can send it electronically at any time

to the membership secretary. [drceditor@aol.com](mailto:drceditor@aol.com)

Now is a good time to ask all the club members to think about one of the projects they have already completed, and share it with the general membership. A small article about the project is a great source for beginners and newcomers to learn about the hobby and the DCRC Members. Words and pictures go great together and everybody in the club wants to know what you have been working on.

During this year I will be calling on some of the senior (non- board) members to secure articles from the general membership for the newsletter. This will help keep the membership informed and also help to involve others in the gathering of information for the newsletter.

Thomas Pfarr as been appointed the Official Photographer, so if you have a story but need some additional photos, please contact Tom, he is more than happy to come to your place and take the photos required. I will also be making another appointment this year, Official DCRC Reporter. I will task this person with covering all the DCRC Events and provided news stories about the events as well as news stories about activities at our field.

Don Gray did a wonderful job with the "Good News" column for years and he will be hard to replace, but I have faith that we have tons of hidden talent in our organization, and I plan on making this appointment before spring.

I have high hopes that this year will provide good weather and light winds for our enjoyment, and flying pleasure. Remember that many more hours are spent at the field sharing ideas, socializing and developing plans for the future than wiggling the sticks. So come the field, even if your plane is not ready to fly and get back into the social side of our hobby. Good friends, and fellowship along with flying make this hobby my true love.

## December Club Meeting Minutes

BY DOUG HARPER

The Holiday meeting was called to order by President Andy Kane at 7:53PM. Andy called for the introduction of guests or new members. None were present.

Treasurer's Report: None Scott reported by phone the monthly expenses over \$100.00

- \$332.02 to Tim Miller for capital Equipment Expense
- 191.82 to Minute man Press for newsletter

County Liaison: Jim McDaniel arranged for our first indoor electric fun fly at the Germantown Soccerplex which occurred last Wednesday.



day. Since this was our first outing a small group assembled to try it out. They quickly found that only smaller electrics would work in the limited space (the size of a soccer field). Jim feels we will be able to do this again and he will try to give the entire club enough notice to attend. We are tentatively shooting for Jan 14, 2009 from noon to 4PM, which is the Wednesday before the next meeting, for the next get together.

New/Old Business: Don Gray con-

gratulated the Club on a very good year. He singled out the work of the board. Don also encouraged the Club to help by contributing to the newsletter.

Andy Kane noted that Google Map has a good satellite image of our field as well as a good ground level photo.

Membership Secretary: We have 122 members who have joined for 2009.

Program: Walt Gallagher discussed the gift exchange which will happen after we eat.

Model Shop:

Raffle: Tonight's raffle is for a F22



turnkey model. It is essentially ready to take out of the box and fly. This is an expensive model so Nir encouraged everyone to buy lots of tickets. The winning ticket was held by Fred Nielsen who received many hoots.

Next, we all had lots of pizza thanks to Walt Gallagher. Andy Herold, our member in Florida, sent us a couple of those delicious key lime pies for desert. There was ample pizza for everyone.

Model Shop: Jay Stargel demonstrated his Ultra Stick with lights, red in the port wing and green in the starboard. He plans to fly this

plane on New Year's to bring in the new year.

David Harris brought his latest



WWI biplane, a Neuport 28, made from a Pilot Kit. Dave received the bones from a friend in Rhinebeck who gave them to him. He covered the model and painted it with a water based urethane from War bird Colors using a camo scheme. The finish is outstanding. The cowl is based on a plane in the Dayton AF Museum that Dave likes. Power is from a .52 four stroke. Dave is looking forward to flying it when the weather warms.

Gus Crosetto demonstrated his



home designed and built electric. It was constructed from balsa sticks and covered with tissue. He powered this plane with an electric out-runner. He calls his model the "mist", a bigger version of the popular Vapor.

After the pizza binge, the gift exchange started to everyone's delight. This was followed by Vapor flying for 15 minutes.

The meeting was adjourned at 9:45PM.

**EDITOR'S PICKS**

*From the St. Paul Model Radio Controllers, Inc., St. Paul Minnesota*

**Winter Airplane Storage**

Since the snow will be falling very soon, many AMA members may not be flying for quite some time. For those who don't intend to fly on skis, the following suggestions may help to preserve your model over the winter months and allow you to get back in operation quickly when the snow disappears next season.

**Airplane**

Be sure to give the entire airplane a thorough cleaning to remove all traces of exhaust residue. Check the covering to be sure that fuel is not creeping under the seams around the firewall and areas around the exhaust outlet, soaking the balsa. If so, make the repairs during the off season while you have some extra time. Check the fuselage and flying surfaces closely for cracks or other damage. Check the servo arms, control horns, clevises, pushrods, and/or control cables for excessive wear or damage.

The airplane can be stored indoors or outdoors in the garage; the constant cold temperatures can be tough on batteries, but otherwise don't seem to cause any problems. The only problem that could occur would be if you stored it in, for example, a workshop that is heated occasionally and then allowed to cool down after use. This could result in damage to the engine because of condensation and probably to the balsa or covering material from temperature changes.

If you store the airplane on a wall, it should not be supported on the nose because this could damage the engine bearings. Support it by the tail structure or similar means. If the wing is removed, do not stand it on end. Support it similar to the way it is normally mounted on the fuselage. Do not leave the weight of the airplane resting on the tires if you don't store it vertically.

**Engine**

The major concern regarding engine storage is to remove all the glow fuel from the inside of the crankcase and cylinder to prevent rust formation on the bearings, crankshaft, etc. The best advice is to remove the engine from the airplane, remove the glow plug and back plate, and flush the inside out with a solvent such as kerosene.

While the back plate is off, check it over for signs of rust, bearing failure, etc. After cleaning, generously oil the bearings and the cylinder with lubricant such as one of the after-run oils or Marvel Mystery Oil. After it is well oiled, reinstall the back plate and plug and place it in a sealed plastic bag along with the mounting hardware until

next season.

If you decide not to remove the engine, at least remove the glow plug, pour some oil into the carburetor, and spin the engine over clockwise to distribute the oil through the bearings. Add some oil through the glow plug hole, turn the engine over slowly a few more times and reinstall the glow plug. Remove the propeller if it is made of wood. Put a plastic bag over the engine to keep dust and dirt out.

**Batteries**

Ideally you should cycle the transmitter and receiver batteries and record their capacity for reference next season. It is best to leave them on a trickle charger to maintain a charge during the off season. If this is not practical, try to charge them at least every one to two months. When ready to fly again next spring, cycle the batteries first to be sure they have adequate capacity.

**Transmitter/Receiver/Servos**

Don't forget to check over the servo wiring and connectors. If there is any sign of corrosion on the connectors, then get them replaced. Also check the output shaft for looseness.

Check the receiver antenna for damage. If there are any doubts, get it fixed or replaced. Extend the transmitter antenna and clean it with alcohol. Collapse the antenna and repeat the cleaning several times. (There are contact fingers inside each antenna section that may become coated with oil, preventing the proper contact between sections, greatly reducing the transmitting range.)

**Fuel**

If you have fuel left, be sure it is capped tightly and store it in a cool place out of sunlight. Some recommend against storing fuel in very cold temperatures, but I have not had any problems doing this in the past.

**Starter Battery**

If you have an electric starter hookup, remove the 12-volt lead acid battery, clean the terminals and check the electrolyte level. Add water if necessary. This battery must be charged if stored outdoors during the winter. A monthly charging will keep the battery from freezing and also extend its life.

**Miscellaneous**

If you have a handful of used rubber bands as I do, throw them out and plan to buy a new box next season. This would be a good time to check your supply of spare glow plugs, propellers, etc., and make up a parts list to replace those used during the summer. If, during your inspection, you run into problems or there is something you are not sure about, call another club member for some advice or suggestions. Make the re-

pairs during the winter and save the warm weather for flying! →

**Going' Out of Prop Biz Sale**  
**Prices Are Crazy – Cash and Carry**  
**ONLY – First Come – Gone!**

**Planes**

- \*Composite Cessna Skyline 157" \$3100 + \$800-Hitec 7955TG Servos (8)+ \$1600-DA 150 w/Mufflers + \$400-Power Expander and (2) 5600mah Li Ion Batts + \$300- Replacement Main Wheels w/Brakes + \$200-Ignition and Landing Lights Batts, Wiring, Engine Choke Servo, Switches + \$200-Futaba 2.4 Receiver + \$200 Beila 29x12 3- Blade Prop + \$200-Full Size Pilots/ Passengers (4) + Operational Cabin Doors @ \$400 for air tanks, Jet Tronic valve + \$100-Miscellaneous Crap all NIB \$7300
- \*Gee Bee Y 97" NIB \$800 + \$1000 DA 85 w/ Smoke Muf + \$385 7 Hitec 5645 Servos + Smoke \$2270
- Lanier Yak 87" NIB \$300
- Lanier Extra 330 94" NIB \$300
- Gee Bee Racer 68" NIB \$180
- \*Giant AeroMaster Bipe 73" \$300
- \*Shrike 40 43" NIB \$120
- \*Sportsman Elec Glider 72" NIB \$280
- Twister ?" \$100
- Slow Poke 25 \$50
- Hangar 9 P-47 81" some damage \$350
- KMP B-25 83" NIB \$475

**Engines**

- SV 100 Gas NIB \$400
- SV 50 Gas NIB \$175
- \*DL 50 Gas NIB \$345
- Zenoah G 26 (2) \$240
- Zenoah G 20 (2) \$240
- OS 160 2S w/Muf \$225
- Pitts Muf OS 160 \$20
- \*Saito 180 4S New \$390
- \*Saito 125 4S \$300
- \*OS 91 VR Ducted Fan \$260
- OS 25 2S w/Muf (2) \$80
- RCV 120 SP NIB (2) \$770
- RCV 91 CD (2) \$200
- YS 60 2S Rear Exhaust \$100
- Irvine 60 2S Rear Exhaust \$070

Lots of other goodies and field support equipment too.

I live in Waldorf—a good haul from the field—if enough hits from members, a Sat or Sun can be arranged and I can drive up with ALL items bought.

Contact Info:  
 mr\_dj\_reed@comcast.net  
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### Trimming an Airplane

The following chart may be used to systematically set up and trim a model for straight flight and aerobatic maneuvers. Please note that for best results, trimming should be done in near-calm conditions. Before you decide to make a change, be sure to try the test several times before making adjustments. If any changes are made, go back through the previous steps and verify that they are not also affected. If they are, make further adjustments as necessary .

To Test for...	Test Procedure	Observations	Adjustments
1. Control neutrals	Fly the model straight and level.	Use the transmitter trims for hands-off straight-and-level flight.	Change the electronic subtrims or adjust clevises to center transmitter trims.
2. Control throws	Fly the model and apply full deflection of each control in turn.	Check the response of each control: —Aileron high rate: 3 rolls in 4 seconds; low rate: 3 rolls in 6 seconds —Elevator high rate: to give a smooth square corner; low rate gives approximately 130 foot diameter loop —Rudder: high rate 30-35° for stall turns; low rate maintains knife-edge	Change ATV (for high rates) to achieve desired responses.
3. Decalage	Power off vertical dive (crosswind if any). Release controls when model is vertical (elevator trim must be neutral).	a) Model continues straight down b) Model starts to pull out (nose up)? c) Model starts to tuck in (nose down)?	a) No adjustment b) Reduce incidence c) Increase incidence
4. Center of Gravity	Method 1: roll into near vertically banked turn.  Method 2: roll model inverted	1a) Nose drops 1b) Tail drops  2a) Lots of forward stick (down elevator) required to maintain level flight 2b) No forward stick (down elevator) required to maintain level flight, or model climbs	a) Add weight to tail b) Add weight to nose
5. Tip weight (coarse adjustment)	Fly model straight and level upright. Check aileron trim, maintain level wings. Roll model inverted, wings level. Release aileron stick.	a) Model does not drop a wing b) Left wing drops c) Right wing drops	a) No adjustment b) Add weight to right tip c) Add weight to left tip
6. Side thrust and warped wing	Fly model away from you into any wind. Pull it into a vertical climb, watch; for deviations as it slows down.	a) Model continues straight up b) Model veers left c) Model veers right d) Model rolls right	a) No adjustment b) Add right thrust c) Reduce right thrust d) Put trim tab under left wing tip
7. Up/down thrust	Fly the model on normal path into any wind, parallel to strip; at a distance of around 100 meters from you (elevator trim should be neutral as per test 3). Pull it into a vertical climb and neutralize elevator.	a) Model continues to straighten up b) Model pitches up (goes toward top of model). c) Model pitches down (goes toward bottom of model).	a) No adjustment b) Add down thrust c) Reduce down thrust

<p>8. Aileron differential</p>	<p>Method 1: fly model toward you and pull into a vertical climb before it reaches you. Neutralize controls, then half roll the model.</p> <p>Method 2: fly model on normal pass and do three or more rolls.</p> <p>Method 3: fly the model straight and level and gently rock the aileron stick back and forth.</p>	<p>1a) No heading changes.                  1b) Heading change opposite to roll command (i.e. heading veers left after right roll).                  1c) Heading change in direction of roll command.</p> <p>2a) Roll axis on model center-line.                  2b) Roll axis off to same side of model as roll command (i.e. right roll, roll axis off right wing tip).                  2c) Roll axis off to opposite side of model as roll command.</p> <p>3a) Model flies straight ahead without yawing.                  3b) Model yaws away from roll command (i.e. right roll, yaw left).                  3c) Model yaws toward roll command (i.e. right roll, yaw right).</p>	<p>a) Differential settings okay.                  b) Increase differential.                  c) Decrease differential.</p>
<p>9. Dihedral</p>	<p>Method 1: fly the model on normal pass and roll into knife-edge flight; maintain flight with top rudder (do this test in both left and right knife-edge flight).</p> <p>Method 2: apply rudder in level flight.</p>	<p>a) Model had no tendency to roll.                  b) Model rolls in direction of applied rudder.                  c) Model rolls in opposite direction in both tests.</p>	<p>a) Dihedral okay.                  b1) Reduce dihedral.                  b2) Use mixed to produce aileron opposing rudder travel (start with 10%).                  c1) Increase dihedral.                  c2) Mix ailerons with rudder direction 10%.</p>
<p>10. Elevator alignment (for models with independent elevator halves)</p>	<p>Fly the model as in Test 6 and pull up into an inside loop. Roll inverted and repeat the above by pushing up into an outside loop.</p>	<p>a) No rolling tendency when elevator applied.                  b) Model rolls in the same direction in both tests—halves misaligned.                  c) Model rolls in opposite directions in both tests. One elevator half had more throw than the other (model rolls to side with most throw).</p>	<p>a) Elevators are in correct alignment.                  b) Either raise one half, or lower the other.                  c) Reduce throw on one side, or increase throw on the other.</p>
<p>11. Pitching in knife-edge flight</p>	<p>Fly the model as in test 9.</p>	<p>a) There is no pitch up or down.                  b) The nose pitches up (the model climbs laterally).                  c) Nose pitches down (model dives laterally).</p>	<p>a) No adjustment needed.                  b) Alternate cures:                      1) move CG aft                      2) increase incidence                      3) droop ailerons                      4) mix down elevator with Rudder                  c) Reverse "b" above.</p>

## **TIPS AND TRICKS**

### **Keep Your Parts in Place**

Ever had the prop nut, washer, and propeller fly off while airborne? Ever heard that sickening "crack!" when you touch the starter to the engine and then spend the next hour looking for the prop nut in the tall weeds? Well, try this solution:

Put an o-ring on the end of the engine crank shaft after you get everything secured. It may keep the prop nut from spinning all the way off next time your engine decides to be cantankerous.

By the way, I hope you have been around long enough to know that propellers, especially the wooden kind, compress after being subjected to tightening down of the prop nut. That's why you see so many coming loose early Saturday morning at the field. What was tight for the last flight on Sunday ain't tight a week later. Check 'em!

—*From the Beachmasters R/C Club, Ocean Park, West Virginia*

### **Electric Screwdriver Drill Bits**

I'm sure by now everyone has an electric screwdriver in his or her tool box, but did you know that you could also use these handy little devils as a drill? Sears, and I am sure other hardware stores, handle this item. What they are are different size drill bits welded to hex shanks ends. You simply slip the hex shaft into any electric screwdriver and drill away. These are great for drilling in tight places or through delicate material. They are slow enough so you won't drill too far and powerful enough to drill through most materials.

### **Small Spring Clamps**

Another item I found at Sears was small spring-loaded clamps. Besides clamping stuff, I use these and a couple strips of wood to center rudders and elevators. Simply place two strips of wood across the elevator and stabilizer: one on top and the other on the bottom. Clamp them in place. Center your servo arm and connect the control rod from the elevator to the servo

arm. Tada! The elevator is now centered with the servo. Repeat on the elevator.

—*Both from the Prop Masters R/C Club, Downers Grove, Illinois*

### **Engine Oil Removal**

Another way to clean baked-on oil from an engine is to boil the stripped parts in a pan of water with a handful of clothes washing powder. It does a great job, but smells horrible!

—*From the Endless Mountains R/C Flying Club, South Montrose, Pennsylvania*

### **When a Little Makeup Will Help**

A lot of us weigh and grade our balsa when we bring it home. Like a lot of modelers, I'll use a pen or magic marker and write the weight of the sheet in grams, and the density in pounds per cubic foot on one end of a 3 x 36 sheet of balsa. Every now and then I won't notice the black mark on the back side of the strip of balsa or on a former or rib until it's glued into place. My experience is that those marks are tough to sand out.

Reader Mike Moskow in Maryland builds beautiful rubber scale models. He has a solution for those black marks in the wrong places. He suggests that you go to an art supply store and get a tube of titanium oxide white artist's paint. It will cover all other colors and when dry, is a near match for balsa.

He says that you can use it to cover laser burns as well. Using it for that purpose may save you a lot of time expended in either bleaching or sanding the laser burn off kit parts. But you'll still need to sand the laser burn off the joint areas because glue doesn't stick as well to the laser-burned material as it does to bare wood. Using the titanium oxide should speed construction on laser-cut kits.

—*From the Southern California Ignition Flyers, Glendale, California*

## **Calendar of Events 2009**

### **January**

- 16 DCRC Club Meeting Rockville, MD Program/Walt Gallagher "Auto Air Paint"
- 17 NVRC Snow Fly- Chantilly, VA (C) NVRC Snow Fly
- 21 DCRC Board Meeting/Scott Davies

### **February**

- 20 DCRC Club Meeting Rockville, MD Program/Terry Lamb "Spitfire"
- 19-21 Festival of Giants IMAA Deland, FL
- 27-01 Wings Over Venice IMAA Venice FL

### **March**

- 13-15 18th Annual Dick Cole Memorial Fly In IMAA Palmetto, FL
- 14 Lebanon Flea Market, PA
- 14-15 Venice IMAC Venice FL
- 20 DCRC Club Meeting Rockville, MD
- 21-22 Gathering of the Giants IMAA Cape Coral FL
- 25 DCRC Board Meeting/ Dave McQueeney

### **April**

- 3-5 Weak Signals Trade Show Toledo, OH, [www.toledoshow.com](http://www.toledoshow.com)
- 17 DCRC Club Meeting Rockville, MD

### **May**

- 2-3 Eastern Shore IMAC Opener Hurllock, MD
- 6-10 Top Gun, Lakeland, FL Linder Regional Airport, [www.franktiano.com](http://www.franktiano.com)
- 13-16 Joe Nall IMAA Woodruff, SC
- 15 DCRC Club Meeting Rockville, MD
- 23-24 Farview IMAC Challenge Hamburg, PA
- 23-24 Fentress Jet Rally, Virginia Beach VA
- 27 DCRC Board Meeting/ Nir Schweizer

### **June**

- 6-7 Two Tony's IMAC Contest, Lums Pond, DE
- 13-14 Giant IMAA Quakertown, PA
- 18-21 Rally of the Giants Hamburg, PA Farfield flying site
- 19 DCRC Club Meeting/

District of Columbia  
Radio Control Club

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One of the oldest and largest RC  
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January 2009

## ***DCRC December Holiday social gift exchange***

