

# DCRC



## February 2009

**DCRC Club Meeting  
Friday 2/20/09 7:30 PM**

**Montgomery County  
Council building**

**100 Maryland Ave  
Rockville, MD**

**Meeting program:**

**Terry Lamb**

**SPITFIRE**

**Meeting Raffle:**

**E-flite indoor Helicopter**

### NEWSLETTER

**Volume 55, Issue 2**



**Vapor flying at  
the meeting,  
Andy getting  
ready to give  
our newest  
member some  
stick time.**

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V.P. Dave McQueeney  
 County Liaison: Jim McDaniel

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Thomas Pfarr

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**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:** Friday night meeting indoor flying of vapors photo by Thomas Pfarr Official Club Photographer

# January Board Meeting Minutes

BY DOUG HARPER



The meeting, held at the home of Scott Davies, was called to order by President Andy Kane at 7:30 PM. In attendance were Andy Kane, Jim McDaniel, Andy Finizio, Tom Pfarr, Alan Hoffman, Dave McQueeney, Doug Harper, Nir Schweizer and Mike Peizer.

The minutes of the Oct 22, 2008, meeting were read and approved.

Vice President – Dave McQueeney audited the books and found them to be accurate and complete.

Field Maintenance Al has volunteers to paint the impound. We hope to have this finished before the Spring cleanup in time for opening day.

Dave McQueeney pointed out that there are many types of insects at the field, especially in the fall of the year. Dave suggested we consider spraying the field. Alan will talk to Eric Monig about what might help the situation.

Andy asked about the status of the additional two wooden tables that Dave and Dave committed to build. Dave McQueeney will ensure that they get built before the season starts. Alan asked if we should put sealer on these tables.

Andy asked that we take a look at the shed during Spring cleanup to see what might need repair (door hinges). Jim McDaniel also pointed out that we have a bit of a mouse infestation in the shed. They have torn open several packages of paper products and destroyed them. Several ideas were discussed about containers that would be “mouse proof”. Jim will look into purchasing them.

Andy asked for an inspection of the bleachers for splinters. He also wants the wind sock condition

checked.

Allan is open for suggestions from members about what we need to do to improve the field.

Sound and Safety – Nir is reviewing all safety and sound field rules to ensure that they are still current. If he feels any of these rules need to be modified, he will bring recommendations to the Board for consideration. Our current rules are posted on our website and at the field for anyone to review. Nir plans to review these rules at a club meeting before the season starts.

Flight Training – Mike will upgrade two club trainers with 2.4 GHz equipment. He is looking for ideas about what to do with the older 72 MHz equipment. He is contemplating giving this equipment to interested students who could use it,

Treasurer’s Report – There were two checks written over \$100.

Events – Opening Day is planned for April 18, 2009. Andy Finizio solicited food ideas from the Board. The Board thought Chile and Cornbread might be good. County Appreciation Day is scheduled for June 27 to coincide with County Heritage Day. Rudder-Only will be CD’d by Don Gray, schedule TBD. The Helicopter Fly In is to be scheduled. Andy is attempting to find a CD for an Electric Fly in.

County Liaison - We have had two very successful indoor electric fly at the SoccerPlex. The Board would like to thank Trish Heflinger, of the MD SoccerPlex Foundation, for her help in setting this up. We are looking at two additional fly dates in February.

Meeting Programs – Andy asked for

*(Continued on page 4)*

## January Club Meeting Minutes

BY DOUG HARPER



President Andy Kane called the meeting to order at 7:35 PM. Andy called for introduction of guests or new members. None were present.

Andy mentioned that he was passing a sheet around for those who would like to host a Club meeting program this year.

County Liaison/SoccerPlex: Jim McDaniel covered the indoor flying that has been occurring at the SoccerPlex. Many members are coming to this event and the SoccerPlex people are glad to have people using the facility. We should be extra careful to respect the facility and not do any damage. Nir brought the hot glue gun to the last meet



and fixed many airplanes during the day. We now call Nir the "Fixiator". We plan to do another date or so in February. We will try to publicize this event in the Newsletter. If demand warrants it, we will try to get both sides of the building for flying. Many members expressed their appreciation to Jim for setting this up.

Field Maintenance: Alan asked the membership to come to him with any issues that need addressing at the field.

Flight Training: Mike Peizer announced that he plans to purchase a couple of 2.4 GHz radios for use

next year. Ron Bozzonetti plans to hang up his spurs this year after many years of helping. So, anyone who would like to help Mike should contact him before the season starts this Spring.

Treasurer's Report: Scott announced that he wrote two checks this month over \$100. Scott brought a copy of the budget for those who would like to see it. Congratulations to Walt for coming in under budget for the holiday party.

Events: Andy Finizio announced that opening Day will be Saturday April 18 this year. County Appreciation Day (June 27 if we piggy back with County Heritage Day), an electric fly, rudder-only (Don Gray) in July, a helicopter fly in in either September or October, Bealeton Fly in in September are many of the events planned for the coming year. Andy asked for members to step up to help run some of these events. The Board will finalize the dates for all these events.

Andy Kane announced upcoming events. NVRC is having a "snow fly" tomorrow in Chantilly. Toledo Trade Show will be held April 3-5. Florida Jets is the first weekend in March. Top Gun is scheduled for the first weekend of May, 6-10. Joe Nall is the following weekend. Rally of the Giants is in June in Hamburg, PA.

Newsletter: Andy thanked Don Grey for writing a column for many months. Andy is looking for someone who can take up where Don left off. One of our younger members has been asked to write an article about the indoor electric fly in.

Raffle: Nir is going a new direction. Tonight he has a Blade Helicopter which is a "bind and fly" unit that

is RTF. All you have to do is bind it to your 2.4 GHz transmitter and go flying. Andy picked the winning ticket which was held by Ed Herbrechtsmeier. Ed received a resounding cheer for winning.

Announcements: Maynard Hill announced that he is giving 10 OS .61 glow plugs to the first 10 people who want one. Maynard continues to work on his next record attempt and will give the Club an update in October.

Program: Tonight's program is presented by Walt Gallagher on the topic of "How (Not to) Paint Models". Walt presented a program a few years ago on painting with acrylic paint and thought he should try this paint to see how it works.

He starts with a picture of what he wants to paint which gives him the layout and colors he wants to reproduce. He then picks the paint he wants to use. He starts with a water-based acrylic as a base. This paint comes in many colors and he picks the one that is correct for the top colors he plans to use.

Walt then discussed the tools he



has acquired to help him paint. He also talked about the location of a paint booth. He has tried various locations including an outdoor enclosure made out of a camping tent. It worked OK but was not ideal. He found that the protective gear you

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must wear to paint clear coat causes you to be very hot, especially when the weather is very warm. So the outdoor location was only good for temps below 70 degrees.

He then went on to talk about how dangerous today's paints can be. You really need good protective gear to use these paints including a full-face mask.

Walt found that the molded carbon fiber airplane parts he was painting needed to be "scuffed" so the paint would adhere. He uses Scotch pads to do this. At this point, he filled any dings with bondo. He also uses DuPont surface cleaner rather than other solvents to clean the surface. He uses tack-free cloths to wipe down any part as well.

After preparing the part and applying the base coat, he then laid out the design using craft paper and tape. He found that getting a truly straight line was challenging. He ended up using a laser level to help lay out lines. While that might have been a bit of overkill, it worked very well.

All masking tape is not created equal. Blue masking tape is good in that it has low adhesive but will not give a crisp line. The green automotive tape available in auto paint stores gives the cleanest line. It comes in various widths from 1/4" up to 1/2". Another choice is "frog tape" from Home Depot which also makes a great line.

After he finished masking for each color, he applied that color. He found that he was spending a lot of time masking between colors. Walt bought some clear coat from a fellow in Toledo that is two-part and provides a very nice surface. Clear coat is very dangerous and great care needs to be taken when spraying it. Walt unfortunately did have a run or two in his paint job. Not to

worry, he found that using an air-powered buffer and rubbing compound could cure almost any ill. Care must be taken not to burn thru the paint but it works great.

Walt tried several spray guns but he likes the low pressure, high volume (HVLP) type that auto shops use. The one he chose has a regulator and water filter at the gun and was made by SATA. It works very well for larger areas but he also uses an air brush for smaller areas. Walt uses a hot air gun to dry the paint between coats. Of course, he found that several thin coats worked the best (true for most paints).

Walt uses a large air compressor to



get the volume of air needed to drive air tools. Lower volumes are needed for spray equipment.

Walt brought a wing that he had painted to show everyone how all this works. He received a resounding round of applause for his very interesting presentation.

Model Shop: Tom Pfarr presented his indoor electric laser cut model of a WWI biplane by Millennium RC. The fuse is carbon fiber and the wings are standard balsa construction covered in ultralite. He uses JR micro servos and a 40 watt motor. It flies very well.

Dave Littleton presented the Mini-mag from Multiplex. It is made of

white foam and turned out to be grossly underpowered. He recommended that no one buy it.

Dave also showed the Avion from Megatech which has a 7.5 inch wingspan. He found it to be less than satisfactory. It flies but that is about all. The radio has a built in delay action which makes for very exciting flying.

The meeting was adjourned at 9:25 PM.

*(Continued from page 2)*

additional meeting program topics for 2009.

Newsletter – Andy is looking for a "Club Reporter" who can come to Club events and provide a newsletter article about that event. Andy has already asked Joe McDaniel to write an article about the electric indoor flying.

In addition, Andy is looking for people he can assign to gather newsletter material for one or more months of the year.

New Business – Allan Hoffman suggested we consider ways to increase our community service. Several ideas were discussed by the Board for consideration to raise money for charitable donations.

Andy adjourned the meeting at 9:02 PM.

## MY DAY AT THE MOVIES

By Doug Harper

I recently had a model related experience I wanted to share with the Club. I received a call from Dave McQueeney last weekend about an inquiry he had received from National Geographic TV. It seems they were doing a special on Charles Lindbergh and were looking for a model of the Spirit of St Louis to use as a backdrop for an interview with an author who has written a book on Lindbergh. Oh, and they needed it Monday. So much for lead time.

Dave and I thought long and hard but couldn't come up with anyone we knew who had one. We even made calls to Charlie Calvert, David Harris, and even Marion Mecklenburg to see if they knew of one. We had NG call the College Park Airport Museum. No dice. I mentioned to Dave along the way that maybe they could use a plane of the same era as a backdrop if they couldn't find the real thing.

On Sunday afternoon I received a call from a nice young woman named Nicole Teusch from National Geo (thanks Dave) who asked if I could bring a plane down to their headquarters on L Street the next day. They were desperate at this point!

My first reaction was that this could be a big bother but the more I thought about it I kind of warmed up to the idea. One advantage of being retired is the ability to do things on the spur of the moment which this certainly was.

I talked to Nicole at length on Sunday evening and we finally agreed that the best alternative I had to offer was my Marion Mecklenburg ¼ scale Stearman. I have been the caretaker of this fine plane for almost 10 years. Of course, it is a very special model and based on the full-scale Stearman at Bealeton. It is painted in beautiful Navy yellow so would show up nicely in a photo shoot.

So, Monday morning I loaded the van and headed to DC. Finally found the Geographic building on L Street and parked in the underground garage. Nicole had made arrangements for some help to get the plane up to the ninth floor where they were setting

ject. The interview went on for two hours and then the whole thing was torn down.

In talking to Nicole, it seems it takes about three months to do 45 minutes of film for an hour show. The inter-



up the interview. They couldn't have been nicer.

An hour later the Stearman was assembled and ready. They also had found a small silver high wing model that could be mistaken for the Spirit. At least it was the right color.

I was amazed to see first hand how much work goes into what we see as a simple interview of an author. Two cinematographers spent over two hours setting the scene, lights, angles, etc. I couldn't believe how obsessive this all is. At the same time, Nicole and her assistant were running around getting other details worked out.

At 3:30 the author, Von Hardesty, showed up as did the Executive Producer and interviewer, Clare Nolan, to start the interview. It turns out that Von, who is a curator at Smithsonian Air and Space, is a highly regarded author of aviation books and has written many books on the sub-

ject. The interview went on for two hours and then the whole thing was torn down. In talking to Nicole, it seems it takes about three months to do 45 minutes of film for an hour show. The inter-

view they filmed today was only a small part of the total deal. They are going to Florida next week to do a "recreation" scene on Lindbergh at the Fantasy of Flight outside of Orlando.

I certainly came away with a new respect for how much work these people do. They often work with actors who sometimes can be a bit difficult to say the least. And of course, they are always under the time gun to get things done.

I had a great time and want to thank National Geographic and especially Nicole for their hospitality.

Attached is a picture of the Stearman surrounded by the crew and Von Hardesty right after the interview.

I will try to let our membership know when this show will be aired.

Modeling continues to be a fascinating hobby!

**THINGS ELECTRIC**  
 BY ROY DAY



**No. 2 An Occasional Column on Topics of Interest to Electric Flyers**

In the last five or six years there have been significant advances in brushless motors and batteries for electric flight. It is no longer necessary for electric powered models to be the "lightweights" at the flying field. Lithium Polymer batteries are the highest capacity (amp Hour) to weight of batteries suitable for our use. However, they have characteristics that require care in their use. More on that later.

More recently another class of cells have become available: A123 or M1 cells. While the LiPo cells are available in a range of amp Hour sizes, the M1 cells only come in two capacities: 2300 mAh and 1100 mAh. Of course, packs can be hooked up in parallel to provide greater capacity. The M1 cells are in metal casings similar to the NiCad and NiMH cells we have used in the past. The 2300 mAh cells are the diameter of a C cell but a half inch longer. The 1100 mAh cells are similar in size to AA cells.

The M1 cells are heavier than LiPo's but not a significant amount for 25 and up size planes. I have been flying 3 and 4 cell M1 battery packs (2300mAh) for the past two years and have found them entirely satisfactory. The photo below shows a three and a four cell M1 pack along with a typical 2100 mAh LiPo pack. The weight comparisons are shown. Often you need the weight to properly balance the plane. Use the battery in lieu of lead. For very light planes, say under 20 ounces, there is no question that LiPos will be superior. However, the smaller and lighter M1 cells (1100 mAh), which I have yet to use, weigh only 40 grams. A 4 cell pack of these, with comparable voltage to the 3 cell LiPo, would only weigh 5.7 ounces. Don Gray has become interested in these M1 cells and is getting some of the 1100 mAh cells. He may be the first one to have some experience.

Compared to LiPO's, battery packs of the M1's are quite rugged. I have had several crashes with no damage to the

**Comparison of M1 and LiPo cells**

<u>Characteristic</u>	<u>M1</u>	<u>LiPo</u>
Nominal voltage	3.3 v	3.7 v
Voltage under load	2.9v @ 30A	approx 3.3
Min. discharge voltage	2v officially, can go to 1.0V	3v officially, but some must go down to 2.75v to get capacity
Voltage sensitivity	Not sensitive to going outside recommended voltage of 2 - 3.6v	Very sensitive to varying outside rec. voltages (may damage pack)
Discharge curve	Nearly flat	Reduction in power over discharge
Balancing	Less frequent	Required



M1 packs.

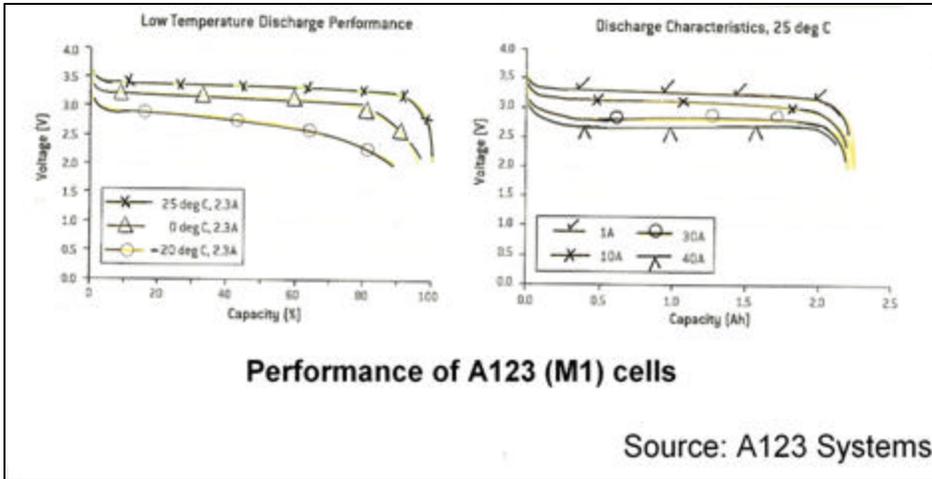
In contrast to LiPO's, the M1 cells have a wide range of utility when it comes to temperature. The figure to the left shows only a slight loss in capacity when discharged at 0 degrees, C (freezing). The spec for M1 cells quotes them as useable from +25C to -20 C. A useful characteristic for cold weather flying.

The figure on the next page right shows the variation in voltage and capacity for a range of loads up to 40 amps. Notice the curves remain

quite flat and little loss in capacity. However, the fall-off is sharp so it's best not to plan your flight to try and get the last bit of capacity. The charge rate for M1 cells is 2C to 4C which compares to 1C for LiPO's. This means a charge in fifteen to twenty minutes between flights.

Another interesting spec for the M1 cells is that they are supposed to last for 1000 cycles, much longer than LiPO's.

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**Cost and Availability**

Packs and individual M1 cells can be obtained from the following:

Battlepack.com

2300 mAh cells cost about \$15 each

Modelelectronicscorp.com

1100 mAh cells are \$10 each

Hobbycity.com

The 2300 mAh cells can also be harvested from DeWalt Tool power packs. The smaller 1100 mAh cells are in the VPX power pack for Black & Decker tools. An article in the March 2008 issue of Model Aviation described how to harvest the 1100 mAh cells from the VPX power pack. (See "The Battery Clinic," by Red Scholefield.) M1 packs require a different charger from LiPO's. Battlepack.com has an AstroFlight charger for M1's.

**Converting the Vapor Charger to Ni-Cad's or NiMHs**



by

**Don Gray**

The Vapor, one of the latest models in Park Zone's Etomic series, has become very popular in recent times. It is a perfect choice for indoor flying, especially when space is limited.

The model comes with a charger with four AA alkaline cells for charging the 70 mAh 3.7volt LiPo battery. Not being fond of replacing alkaline cells every 15-20 charges, which can also become costly over time, I decided to replace the alkaline batteries with four NiCad's. Look for the complete article next

**Calendar of Events 2009**

**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
- 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
- 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 Farview flying site
- 19 DCRC Club Meeting/

**July**

**WANTED,**  
Zenoah GT-80 Twin  
Contact Bill Baldiga  
703-931-1338



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Radio Control Club

First Class Mail

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February 2009



Walt and Jim Working on Walt's new Vantage,  
all work being inspected by Nir "The Fixantor" Schweizer