

November

# Skywriter

2012



SKYMASTERS RADIO CONTROL CLUB  
OF MICHIGAN  
AMA Chartered Club #970  
15 Year Gold Leader Club  
[www.skymasters.org](http://www.skymasters.org)



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## From the President...

### *Hello Skymasters!*

We are now in full transition to the winter season! Before touching on some of the upcoming winter activities, I would like to wrap up some of the later ending summer activities.

Stony Creek Metro Park float flying ended in late September, and marked another nice year of flying at Winter Cove on Wednesday mornings throughout the summer. Please join me in thanking Jim Held and Harold Dory for their combined efforts that made the weekly event come to life again this year. The float flying is Co-sponsored by both Skymasters and Fraser R/C Flying clubs.

Skymasters' October 11<sup>th</sup> meeting was a great turn out by our members, and we welcomed Don Armstrong and

Ken Neal as guest speakers. Don owns and operates Strong RC Motors LCC, while Ken owns KensCADmodels and CNC router cuts various foam airplane kits. The meeting also led into discussion for the possibilities of how combat flying may practically work out indoors as well.

The October 25<sup>th</sup> meeting was mainly club business, as we voted on a number of proposals to the constitution and bylaws. Results are shown later on in this edition of The Skywriter (*see page 14*). I would like to thank all of those that came out and gave their voice of opinion on all subjects presented for vote.

October night flying was a success, highlighted by Don Armstrong, Ken Neal, Ted Labbe and all of their great friends showing us live combat demonstrations. There was a large member turnout, and it appears that this is

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an interest for our club to pursue for fun. After the combat we transitioned into night flying, and the number of lit aircraft is growing! I would like to thank Bill Dezur for bringing out hot dogs, buns and chips for the guys to snack on as well.

Newly signed off pilots! Please join the flight instructor crew with congratulating Joey Baran and Tim Hogan as they both have been signed off as pilots in the month of October. Joey's and Tim's photographs are to the right. Way to go, guys!

The "Retirees and Wannabe's Breakfast" outings have already been kicked off for the winter season, held on first and third Monday's of the month. The meeting place is at The Red Olive Restaurant, 1194 Walton Blvd, Rochester and is located in the strip mall directly across the street from Crittenton Hospital just east of Livernois. See the calendar on the Skymasters website for additional information at:

[www.skymasters.org](http://www.skymasters.org)

Indoor flying at USA (Ultimate Soccer Arenas) will begin November 6<sup>th</sup> at 11:00 am and run until 1:00pm every Tuesday except for Christmas and New Year's Day. Please refer to the calendar on our website at: [www.skymasters.org](http://www.skymasters.org) for additional holiday flying dates and flying times. Please help Roger Schmelling and Fred Engleman by registering before the flying starts on November 6<sup>th</sup>, as it will help reduce the number trying to sign in on the first day. Thanks Roger and Fred, for organizing this year's indoor flying at USA!

Fred and Edith Engelman are once again taking on the Christmas party for this year, and I would like to get more people involved early to help with this proud Skymasters' tradition. Bring the entire family and a dish to pass for this potluck style dinner. Santa will appear to sing a few Christmas Carols and hand out gifts to the kids. We are looking for a flight simulator or two, and for everyone to bring an aircraft for show and tell.

Santa will need age, gender, name and suggestion of gift for each child 10 and under attending this year - as early as possible please. (Please email me) This year's party will be held on December 13<sup>th</sup> at the Orion Center on 1335 Joslyn Rd, Lake Orion, MI 48362.

For closing, I would like to encourage all members to show at the November 8<sup>th</sup> meeting to elect our club officials for the 2013 year. This is important, so please save the date on your calendar!

#### Front Cover:

Time exposure showing a combination of some straight passes and loops at the Skymasters night fly, October 20th, 2012

*Paul Goelz photo*

Sincerely,

David L. Lange

President,  
Skymasters



Welcome our newest pilots....

Joey Baran (top)

And Tim Hogan (bottom)





# Scale Tails



By: Gary Weeks

November 2012

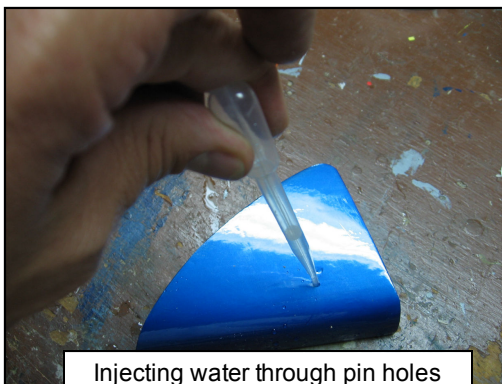
It happens to all of us, scale and sport modelers. I'm talking about "hanger rash", that bump, drop, or other lurking hazard that seems to dent a pristine finish right in the most noticeable locations. If you have used any of the plastic film finishes, then you are aware of how difficult it is to make seamless repairs on a clean surface.



Pressure dent in Monokote® finish.

My first reaction to such a blemish is to apply a sealing iron and hopefully pop the dent out. This will tighten the covering over the dent. It helps, but it is not a total repair since the film will reveal the edges of the dent. Warbird owners have an escape route here...they can simply add a patch to a war-weary airframe and it will just blend in with the rest of the scale effects. I have used that one many times. However, sometimes you may want to remove all evidence of the blemish. Most woods, especially balsa, have an ability to repair themselves if the dent is simply a compacting of the grain.

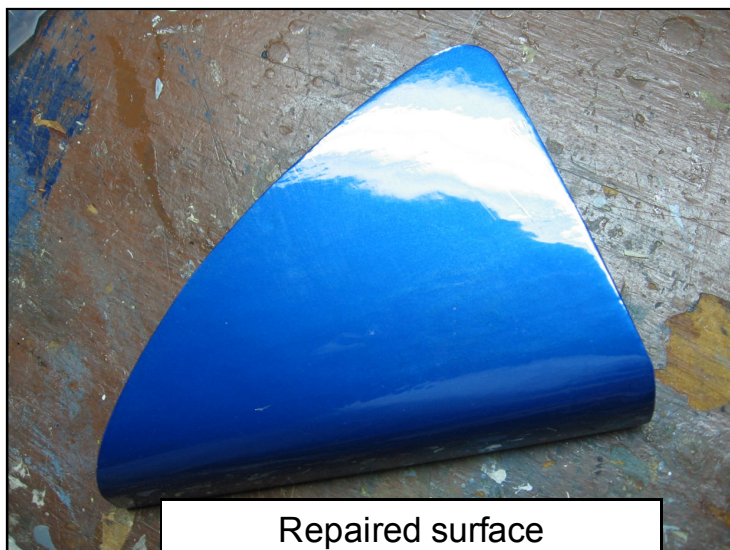
Here is a technique that I have used successfully many times; with a small pin or needle, poke a few small holes



Injecting water through pin holes

through the covering over the dent. Space the holes about  $\frac{1}{4}$  inch apart. Next, using an eye dropper, push a little water through the holes. You don't need much, just a mist will do. Also, don't use a syringe for this step; the idea is to have the water end up between the covering and the dent, not to penetrate through the wood sheeting.

Finally, apply heat with a sealing iron and steam the water back out through the small holes and seal the covering back down to the wood. The steam will swell the balsa wood grain back to its original shape (or very close to it). Once the dent is "popped" out, the covering is adhered to back onto the wood. Using the iron, make sure the small



Repaired surface

pin holes are closed onto the wood. Be careful not to use too much heat. The idea is not to shrink the covering, but to steam the wood and adhere the covering. Excessive heat will pull the covering and enlarge the pin holes that you made. Done correctly, this will make an almost blemish-free repair.

Full scale pilots keep a log book of all of their flights. Many modelers do as well. It is fun to look back at the experience of any particular aircraft. I have been keeping a log for many years. If you don't log your flights yet, give it a try. I record the date, location and number of flights. However, you can get more detailed by including weather conditions, length of flights etc. I also keep a simple building log. I took a look at it the other

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day and it made me feel old; Since 1977 I have built 38 R/C airplanes. Interestingly, 18 were kits, 19 were scratch built, and 1 was an ARF that I highly modified. My Goldberg Eagle 2, "Minute Maid", trainer has 403 flights to date. Assuming an average flight lasts 7 minutes, that is a total of 47 hours on the airframe! I know there are models out there with a lot more flights than that and I would love to hear about them.

Until next month, "Keep it real (looking)".

Gary Weeks (weaksgt@yahoo.com)



Log your flights!

## Skymasters Breakfasts

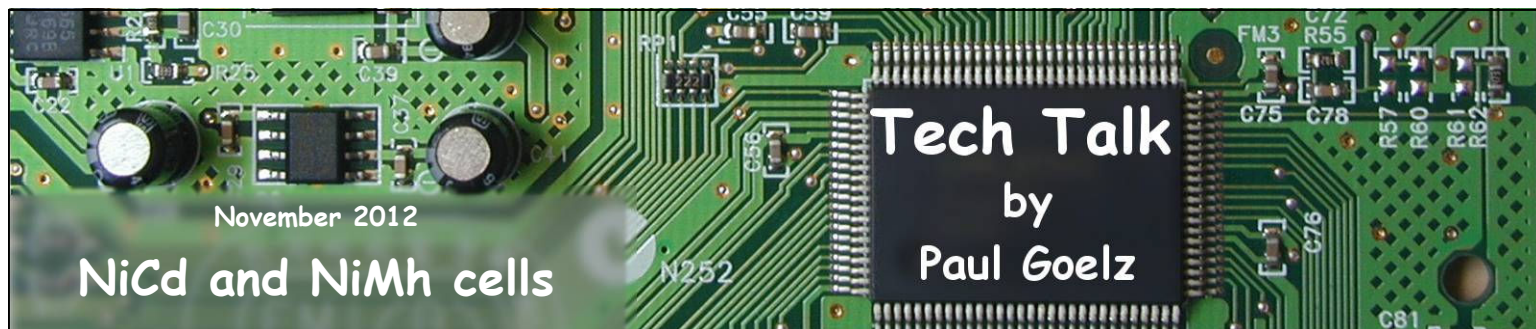
As someone who has recently transitioned from the "wannabe" to the "retired" category, I am really enjoying the Skymasters breakfast get-togethers on the first and third Monday at the Red Olive restaurant. We get to talk (mostly) model airplanes to our heart's content while enjoying a great breakfast at VERY reasonable prices. The first two breakfasts this year drew about 20 people each and the kitchen handled it remarkably well.

Come join us!

Paul Goelz







Last month we talked about lithium cells... how to charge them, use them and store them. This month the subject is Nickle Cadmium (NiCd) and Nickle Metal Hydride (NiMh) cells. While NiCd and NiMh are similar, there are some important differences.

### Energy Density

NiMh cells have a higher energy density per unit of weight or volume than NiCd cells. In other words, a NiMh cell will store more power than an equivalent size and weight NiCd cell. Note, however, that lithium cells supasss either NiCd or NiMh for power density by quite a ways.

### Discharging

A NiCd cell can (generally) deliver more current (for a shorter time) than an equivalent size NiMh cell. Although NiMh cells have partially caught up, this is why NiCd cells were popular for electric planes even after NiMh cells arrived on the scene, and may still be the chemistry of choice for very high current applications. NiCd and NiMh cells have a non-linear discharge curve that starts at about 1.4V (give or take) when fully charged, drops fairly quickly to around 1.2V/cell and then at the end of discharge drops rapidly to about 1V/cell (which is considered fully discharged). So for eaxmple, a typical four cell flight pack would start off at about 5.6V, slowly fall to around 4.8V where it would remain for the majority of the discharge, and then gradually drop to about 4V, which would be considered end of discharge.

### Charging

Unlike lithium cells, NiCd and NiMh cells can be continuously charged even after they are fully charged at a low current without damage. This is because in both cell types, when the cell is fully charged, the excess charge current is converted to heat and does not damage the cell as long as the current is less than 1/10 the cell capacity for NiCd and 1/20 the cell capacity for NiMh. This charge mechanism is also what keeps the cells in balance during a slow charge.... the cells that reach full charge first simply get warm while other cells catch up. This is also how a fast charger determines

when the pack is fully charged. When the cells reach full charge and heat up, the elevated temperature causes the cell voltage to drop slightly. The charger senses the rise in voltage during charge and then the drop (the "peak") and terminates the charge.

### Charge retention

NiCd and NiMh cells both tend to self discharge while in storage. Self discharge in NiMh cells is considerably worse than NiCd cells. Fully charged conventional NiMh cells can be near dead in a couple months. However, the latest NiMh cells (often advertised as "low self discharge" or "pre-charged") have a drastically lower self discharge. Popular types such as Sanyo "Eneloops" or Rayovac "Hybrid" cells are spec'd at 10% self discharge in the first month and another 10% self discharge in the next YEAR. I have several flight packs made from Rayovac Hybrid AA cells and they do perform as advertised.

### Memory effect

"Memory effect" is a much mis-understood term that is applied to NiCd and NiMh cells. It refers to the fact that NiCd cells can develo a "memory" for a particular discharge rate and state of charge and then fail to deliver full capacity when needed. This was discovered in satellite use where the charge and discharge were very tightly controlled. It is much less of a factor in model applications. It is supposedly not a factor at all for NiMh cells. However, I have found that a full discharge followed by a full charge does seem to wake up a sleepy NiMh cell. The flip side (in my experience) is that the increase in usable capacity from a full discharge/charge cycle is temporary.

### Building a pack

When building a pcak, if possible, use cells that have tabs welded to the cell ends. If tabbed cells are not available, you can solder to a NiCd or NiMh cell but there are some cautions.

- Make the solder joint as quickly as possible. Excess heat will damage the cell and will destroy the seal

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under the positive button. Once the seal is damaged, the cell will leak and fail.

- Use sandpaper to scuff the cell ends.
- Use a small amount of rosin flux on the scuffed ends.
- Tin each end quickly. Then finally solder the wire to the cell.

#### Pack maintenance and testing

NiCd and NiMh cells share several common failure mechanisms. The capacity can decrease over time, and the self discharge can increase over time. Both can be fatal to an airplane (or transmitter pack) if not monitored. Self discharge in particular is an often overlooked issue that can crash a plane. I have had several NiCd packs that after being fully charged and left for a couple days would self discharge over 1-2 days to the point that they would not have lasted through a single flight if used.

If you are uncertain about the state of health of a NiCd or NiMh pack, there are several tests that can help point out a bad pack.

- If you have a charger that can discharge, do a full charge followed by a full discharge at a current close to what the pack will see in use. The pack should deliver close to its rated capacity in mAH.
- With the pack fully charged, wait one or two weeks and then do a full discharge. The pack should deliver **at least** 50% of its rated capacity.

#### Conclusion

Although lithium cells these days have replaced NiCd and NiMh cells in many applications, there is still a place for NiCd and NiMh in applications that are not weight sensitive and/or where a simpler charging system is desired.

See you next month!

Paul Goelz

## First of four Saturday Night Flying sessions in October

(no, that's not a rainbow... it's a crash)

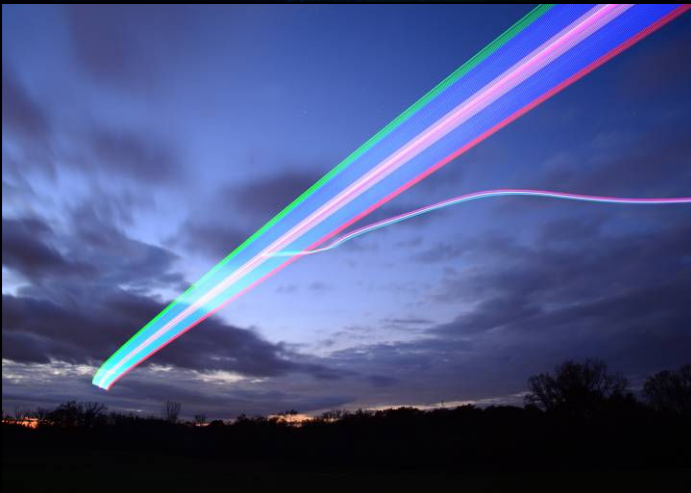
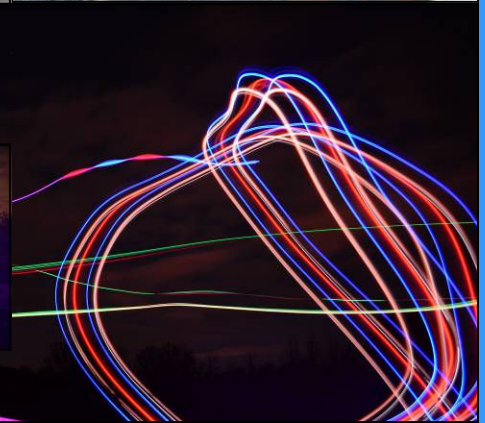
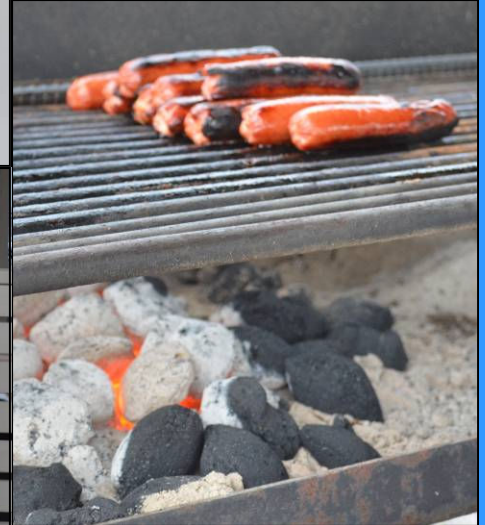
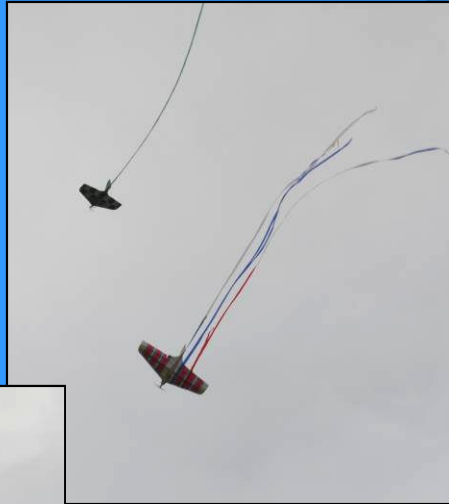




# Second night flying session

October 20th 2012

The second scheduled night fly date at the Scripps field was called due to bad weather. But the third on October 20th saw much better conditions. There was a streamer combat demo at about 5PM, followed by hot dogs cooked by Bill Dezur and then night flying until about 10PM. Lets hope we can convince the DNR to open night flying throughout the year.



# ON THE WING

## Skymasters Breakfast!

First and Third Monday  
of each month

**9AM**

**Everyone welcome**

Red Olive restaurant  
In the strip mall on  
Walton, across from  
Crittenton Hospital



## Winter Indoor Flying Resumes!

*Starting November 6th*

every Tuesday  
from 11AM to 1PM

At Ultimate Soccer,  
Opdyke and South Blvd  
Pontiac, MI

## November Skymasters Meeting (Elections)

Thursday, November 8th

6:45 TO 8:45 pm

At the Orion Center

1335 Joslyn Road (just south of Clarkston Road)

Lake Orion, MI

## Other local indoor flying sessions

Thursdays, 9AM to 3PM (6 hours)

51379 Quadrate, Macomb MI

(north off 23 mile, east of Hayes)

Small electric planes and helis

(safe separate heli space)

*AMA not required*

\$10/session

Information: Steve Durecki 586-246-4203



# November 2012

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	<b>Breakfast at the Red Olive</b> <b>9AM</b> On Walton, across from Crittenton Hospital	<b>Indoor flying at Ultimate Soccer</b> <b>11AM—1PM</b>	7	<b>Regular meeting (Elections)</b> <b>Orion Center</b> <b>6:45 to 8:45</b>	9	10
11	12	<b>Indoor flying at Ultimate Soccer</b> <b>11AM—1PM</b>	14	15	16	17
18	<b>Breakfast at the Red Olive</b> <b>9AM</b> On Walton, across from Crittenton Hospital	<b>Indoor flying at Ultimate Soccer</b> <b>11AM—1PM</b>	21	22	23	24
<b>Indoor flying at Ultimate Soccer</b> <b>11AM—3PM</b> <i>(special 4 hour session)</i>	26	<b>Indoor flying at Ultimate Soccer</b> <b>11AM—1PM</b>	28	29	30	

## 2012 Club Officers & Appointees...

President:	Dave Lange	2477 Trinity Ct.	Oxford	48371	248-969-3914
Vice Pres.:	Mark Smith	1955 Hopefield	Orion	48359	248-391-5970
Secretary:	Ed Saumier	2822 Benjamin Ave.	Royal Oak	48073	248-288-0619
Treasurer:	Bob Donohue	3323 Baldwin Woods	Lake Orion	48359	248-915-9791
Editor:	Paul Goelz	328 Powderhorn Ct.	Roch. Hills	48309	248-375-9461
CFI :	Roger Schmelling	688 Ashburnham	Auburn Hills	48326	248-321-7599
State Park:	Bill Stark	1010 E. Clarkston	Lake Orion	48362	248-693-8639
Membership:	Joe Rubenstein	155 Cayuga	Lake Orion	48362	248-693-4265

**Newsletter Submissions**  
 Please send all articles, photos  
 and announcements to the  
 Skywriter editor at:  
[newsletter@skymasters.org](mailto:newsletter@skymasters.org)  
 Deadline is the 20th of each  
 month.

The Skywriter newsletter is  
 published monthly by the  
 Skymasters Radio Control Club  
 of Michigan  
[www.skymasters.org](http://www.skymasters.org)



# MIDWEST R/C SOCIETY

24th annual

## R/C SWAP MEET

**Sunday, November 4<sup>th</sup>, 2012**

**9:00am to 12:00pm**

### **location**

**Northville Senior Community Center  
Northville, Michigan**

### **admission charge**

**\$5.00 per person**

**(active duty military, kids under 12, and women are admitted for FREE)**

### **vendor table cost**

**\$20.00-\$25.00 per table, depending on location**

*The vendor table cost includes one admission. Vendor set up time is 8:00am.  
Advance table reservations are highly recommended, last year all tables were sold in advance!*

*For information, call Rudi Reinhard at: 248.631.8205 or e-mail: [rwrbk@comcast.net](mailto:rwrbk@comcast.net)*

### **directions**

Take the 8 Mile Road exit off of I-275 and go west for 2.5 miles on 8 Mile to Center Street.

Go south (left) on Center Street for .5 miles and then west (right) on Main Street.

The Northville Senior Community Center is located at 303 West Main Street in downtown Northville.

There is free parking in the back of the building, off of Cady street.





# Attention Skymasters

## The Monthly Meeting Date and Location Has Been Changed.



The meetings will be conducted on Thursday evenings starting Sept. 27 from 6:45 until 8:45pm at the new Orion Center located on 1335 Joslyn Rd. just south of Clarkston Rd. There is a large meeting area and plenty of parking.



### 2012 Meeting Dates:

- Thur. Sept 27<sup>th</sup>
- Thur. Oct. 11<sup>th</sup>
- Thur. Oct. 25<sup>th</sup>
- Thur. Nov. 8<sup>th</sup>
- Thur. Dec. 13<sup>th</sup> Christmas Party



# First meeting at the Orion Center

September 27th, 2012 (Fred Engelman photos)





# Indoor streamer combat at Ultimate Soccer

A group of interested pilots met at Ultimate Soccer on October 23rd and October 30th to practice as well as develop rules and procedures for indoor streamer combat. The idea is to attempt to cut a crepe paper streamer flown behind each airplane.... which is not as easy as it looks. Initially, planes were limited to 6 oz. and no more than two cells, but there was talk of increasing the maximum weight slightly.

It was found that the smaller planes had trouble actually cutting the streamers, which ended up tangled in the prop.

Streamers were made by using a jig (held by Fred Engelman below) that clamps a roll of crepe paper and allows the roll to be cut into narrow slices.

The hope is that this will become a regular event at Ultimate.





## Regular Meeting Minutes

October 25, 2012

Meeting held at Orion Community Center, called to order by President, Dave Lange. Dave had favorable comments on the Combat Flying demo by Don Armstrong, Ken Neil, Ted Labbe and friends. It took place Saturday evening, October 20.

The remainder of the meeting was devoted to discussion and voting of eight proposed Constitution amendments. Voting was offered by show of hands or secret written ballot. All votes were done by show of hands. 41 members were present, so 27 (2/3 of members present) affirmative votes were required to pass an amendment. Ed Saumier introduced the proposals and then the proposer presented the proposal and moderated any discussion.

The results were as follows:

**Proposal** by Ed Saumier to accept the reformat of the Constitution and Bylaws document. The purpose of the reformat was to give the document consistency and no substantive changes were made.

Moved and seconded. **Passed unopposed.**

**Proposal** by Ed Saumier to establish makeup of the Executive Operating Committee. EOC would consist of four Officers and three at-large members. At-large members would be voted immediately following election of officers. Lengthy discussion regarding question of 5 or 7 member board, and whether at-large member(s) should be appointed by incoming officers or voted from General Membership.

Joe Finklestein called for vote, second by Greg Cardillo. For 33; Opposed 6; **Motion passed.**

**Proposal** by Ed Saumier for Officers term of office to begin January 1 instead of first Regular Meeting in January. Short discussion.

Greg Cardillo called for vote, second by Paul Goelz. **Motion passed.**

**Proposal** by Fred Engelman and Ed Saumier requiring 2 week notice to all members for meeting where Constitution or Bylaw changes were to be presented and voted on. Short discussion.

**Motion voted and passed.**

**Proposal** by Paul Goelz revise and clarify provision for dissolution of the Club. Lengthy discussion.

Pete Foss called for vote, second by Joe Finkelstein. For 40; Opposed 1; **motion passed.**

**Proposal** by Greg Cardillo to add "Conflict of Interest" wording. Lengthy discussion.

Called for vote and seconded.

For 14; Opposed 14; Abstain 4; **Motion failed to pass.**

**Proposal** by Paul Goelz to place dollar amount on spending EOC can authorize without vote of membership. Lengthy discussion.

Called for vote and seconded.

**Motion failed to pass.**

**Proposal** by Dave Lange to require EOC meetings be open to members and held in public facilities (flying field, library, community center, etc.). Discussion: EOC meetings are not required to be open to members, it is at the discretion of the board.

Called for vote and seconded.

For 5; Opposed 36; **Motion failed to pass.**

### Show and Tell:

There were 7 participants; John Hakala won a gift card in the drawing.

Respectfully submitted:

**Ed Saumier, Secretary**





**Skymasters at the regular meeting  
25 October, 2012**

## Skymasters Information...

Skymasters field is located in Lake Orion, within Bald Mountain State Park on Scripps Road (see map). A state park Permit is required and can be obtained from the Park Headquarters located on Greenshield Road or at club events. Flying is permitted from 10 AM to 8 PM. The noise limit is 94 dBA at 10 feet. This noise rule is strictly enforced.

**Wednesday evening (through August) is Family Night** with flying and a pot luck buffet. Bring something for the grill & a dish to pass.

**Thursday 3PM to 8PM is Student Night (through August)** but there are usually instructors around all day. Meet the instructors and arrange for more instruction time together on other days. Our Chief Flight Instructor is Roger

Schmelling, 248-321-7599.

From June through August, **Club meetings** are held at the field, on the second Wednesday of the month at 8 PM. A great chance to fly and socialize. **Winter meetings** (September through May) are usually held at the Orion Center, 1335 Joslyn, in Lake Orion. Check the calendar here or on the web site for specifics. Bring a model for Show and Tell, enjoy coffee with donuts and listen to the speaker of the evening.

The Skywriter newsletter is sent to members, local hobby shops, and other R/C clubs in the area and around the country. All contributions are welcome. Please send photos and articles to

[newsletter@skymasters.org](mailto:newsletter@skymasters.org) If you know of anyone who may be interested in R/C Aviation, please give them a copy of this newsletter or a copy of an AMA magazine. It may spark their interest!

