



SKYMASTERS RADIO CONTROL CLUB
OF MICHIGAN
AMA Chartered Club #970
15 Year Gold Leader Club
www.skymasters.org



In this issue:

President's message.....	1
Scale Tails.....	3
Tech Talk.....	4
Indoors @ Ultimate.....	6
On The Wing (News).....	8
Calendar.....	9
Indoor streamer combat	10
LED Lighting seminar.....	11
Flyers.....	12 - 14
AMA awards presentation	15



From the President...



Hello Skymasters,

I cannot believe that this is already my last president's message! Time flies when you are having so much fun! ;-) It has been a tremendous year for the Skymasters with all the accomplishments that we have

achieved!

No Newly Signed Off Pilot Left Unmentioned!

In August, Kurt Holderness signed off as "Pilot" status, and we missed getting his picture in the newsletter. Congratulations Kurt, for becoming a pilot this year. See page 7 for a photo of Kurt and his father Pete - Great picture guys!

November Meeting and Election Results:

I would like to thank all of those who put their name in

the hat for leadership positions this year, and for all of those who showed up to vote. I cannot remember a year in the past that we have had this level of participation. Looking to next year, it is certainly encouraging that we may have unprecedented levels of involvement at Skymasters' events and community outreach.

Please congratulate the following for the positions in which they were elected for 2013: President - Ken Gutelius, Vice President - Dave Lange, Treasurer - James Wynn, Secretary - Pete Foss, and the additional three elected board members: Paul Goelz, Joe Rubenstein, and Gary Wells.

Upcoming Events:

We have some more events left before we can say we are finished with 2012. For indoor flying at Ultimate Soccer Arenas, Tuesday, December 4th and 18th, there

(Continued on page 2)

(Continued from page 1)

will be streamer combat following the normal flying sessions (separate \$10 entry fee). Also at the Tuesday December 18th session, there will be a drive for donations and toys to go towards helping those in need this holiday season. On December 26th, there will be a four hour indoor flying session between the hours of 11:00am and 3:00pm.

On Thursday, December 13th, we will be having our **Skymasters family Christmas party**. Please bring a dish to pass and your family! Appetizers start at 6:30pm, and a potluck style dinner will be on at 7:00pm.

Monday, December 17th, the wives are encouraged to join the retirees and "Wanna Be's" for breakfast at the Red Olive at 9:00 am. Please visit the website monthly calendar for more info (see notice on page 9).

The Krazy Snow Fly is our last event of the season on Monday, December 31st and Paul Zabawa is heading it up. We never know what the weather or field conditions will be, but that is what makes this event one worth attending. Paul also makes a great pot of chili for this event, so install the skis, floats, or wheels on your plane and come on out!

A Brief Year in Review:

The 2012 year has been a year with many great strides for our club. This year we achieved a much improved swap meet, new website, new meeting site, new IMAC clinic, and night flying. Wheels were added to the flight stands for easier access for mowing. A 15 MPH speed limit sign was added to help reduce the amount of gravel thrown back into the grassy shoulders and account for the loss of visibility with the late summer corn.

We made nice strides in getting involved with the local community this year, by returning to Barn Daze at Friendship Park. I would like to thank Ken Gutelius who championed the event with a great crew; Paul Goelz, Teo Terry, Dan Stolz, Greg Brausa, Andy Sutter, Kyle Beidoun, Ron Wlosinski, Gary Wells, and first year student to pilot Phil Saunders. A special thanks to Fred Engelman on this mission, as he made up a large number of stakes and a new stake driver for the event. What a group effort by dedicated Skymasters! I am sorry if I missed any key names.

This year the Skymasters changed to a dedicated Thursday "student pilot only" format. Roger Schmelling was our chief flight instructor, and he did a fantastic job leading our instructors over the season. We were

blessed with a fantastic group of student pilots that really caught on quickly. Along with the first time students we gained some new "established pilots", and they are a great asset to our club as

Front Cover:

Pete Foss at the LED Lighting Seminar at Flightline Hobbies, Saturday November 17th

Paul Goelz photo

well. I am really impressed with the level of volunteer help that all new Skymaster members have put in during the year. Thanks guys, you have added in many ways to our club!

Newsletter Success!

Thanks to Paul Goelz for doing such a great job on our monthly Skywriter! Not only is it monthly, it is packed with very interesting content on a consistent basis. Please give Gary Weaks gratitude for taking the time to write his "Scale Tales" article throughout the year. I would also like to thank all other contributors that have sent in great articles throughout the year. Also, a special thanks to Chuck Slattery for stepping forward to ensure that our Skywriter gets printed, labeled, sent out, and placed where it needs to be. 2012 was a special year for our monthly, and it could not have happened without all the great members that volunteer!

Hail to the Webmaster!

This year Ed Saumier took on the task of a new website, and he has done an amazing job on it. Thanks for giving us such a great place to call home, Ed! First year member Bob Chapdelaine will be helping Ed in 2013 to add more content, as we move forward. Thanks Bob, for volunteering!

Appreciation to the 2012 board!

Join me in thanking Mark Smith, Bob Donohue, Ed Saumier, Roger Schmelling, Randy MacInnes, and David Wendt for working so hard for our club this year. The team worked well together and I am certainly grateful to have been a part of it.

My First Solo 1982...

In the first president's message that I wrote this year, I mentioned that my first solo was with a Goldberg MARK II Falcon 56.



After sorting some contents from my dad's workshop, I came across a couple pictures of my Falcon 56. I received the kit Christmas of 1981, and the date on the lower right hand corner of the picture is July of 1982. My memory was one year too early when compared to the January Skywriter! :-/ What can I say, I feel one year younger at least... :-)

In closing, I am thanking all Skymasters for such a remarkable year. Working, problem solving, brain storming and even just socializing have really helped me appreciate everyone in this great club that much more. We are a diverse club with many talents, and I remain confident that we are the best in the Midwest.

Sincerely,

David L. Lange

President, Skymasters

Scale Tails



By: Gary Weeks

December 2012

Welcome to building season! For me, the winter months mean that the fuel and batteries go to the back of the shelf and the glue and covering iron come to the front.

Most scale projects begin with an inspiration. A photo, a movie, a full-scale on the tarmac, you never know where or when that spark will occur. When that happens to me, I keep my eye out for documentation.

Sometimes years before I begin a project I will start to collect documentation. The internet provides a wealth of information. However, from my experience, the best form of documentation is the books that I collect. Unlike a web page, a book can accompany me right to the drawing board or work bench. And you can find great prices on documentation books at the many swap meets that are held in our area this time of year. However, I want to share a great web site for airfoils. If you are a stickler for scale or just curious about the true airfoil shape of any plane, check out <http://www.ae.illinois.edu/m-selig/ads/aircraft.html>. They list the airfoils for over 450 full-scale aircraft types. They also have a link to the UIUC Airfoil data site. The UIUC data displays the coordinate data that allows you to plot the upper and lower airfoil surfaces once you establish the cord (length of the rib).

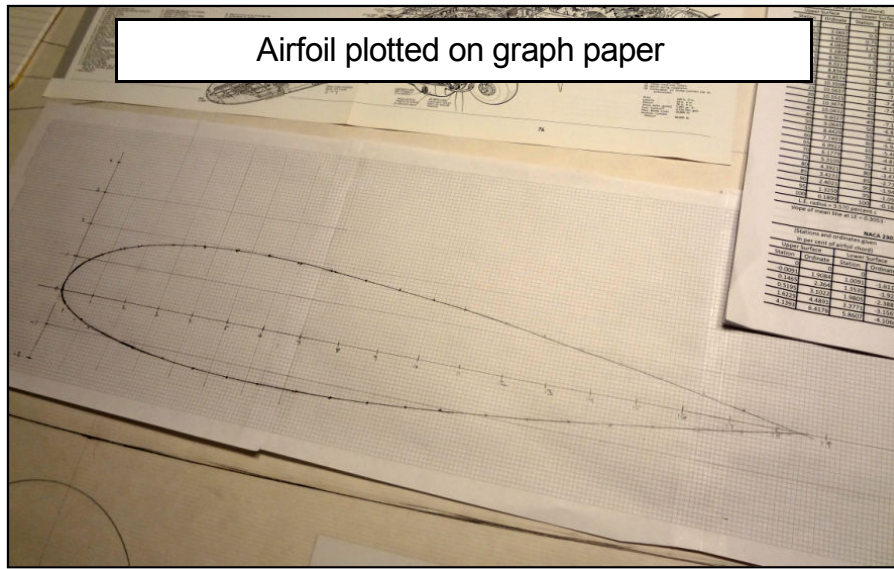
With this information you can plot the coordinates and resulting shape in your favorite graphing software. If you are old-school, like me, then you plot the shape on graph paper. Either way, you have a true representation of the airfoil (rib shape) for your aircraft.

The other reason that I like to draw with paper and pencil is that while I am designing, I can place hardware

components on the drawing board and determine the fit and arrangement. Although progress looks slow, many decisions and engineering task are taking place at this

stage. In that way, the building process should go smooth without unexpected assembly problems.

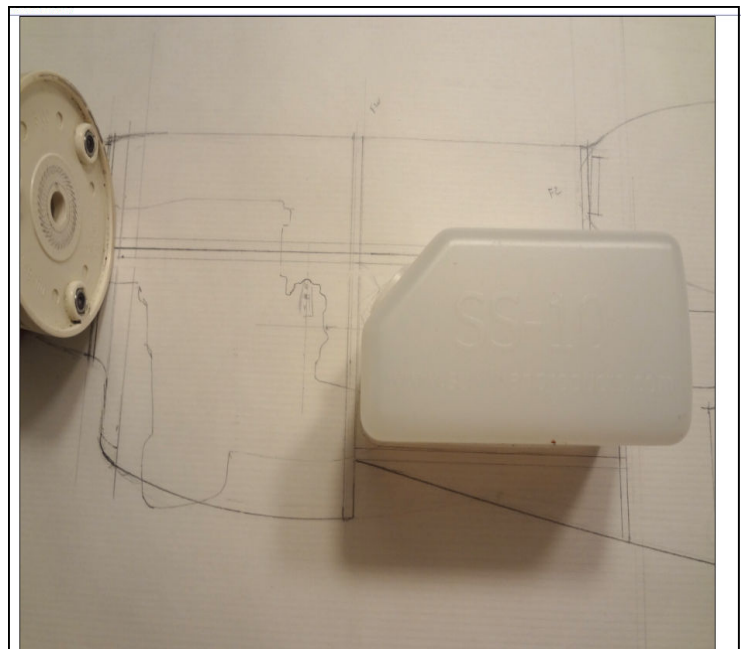
I have purchased a flat, wooden, interior door at my local home improvement store. This makes a great, inexpensive drawing board that is also portable. I can move it out of the way and leave the drawings taped in place if I need to.



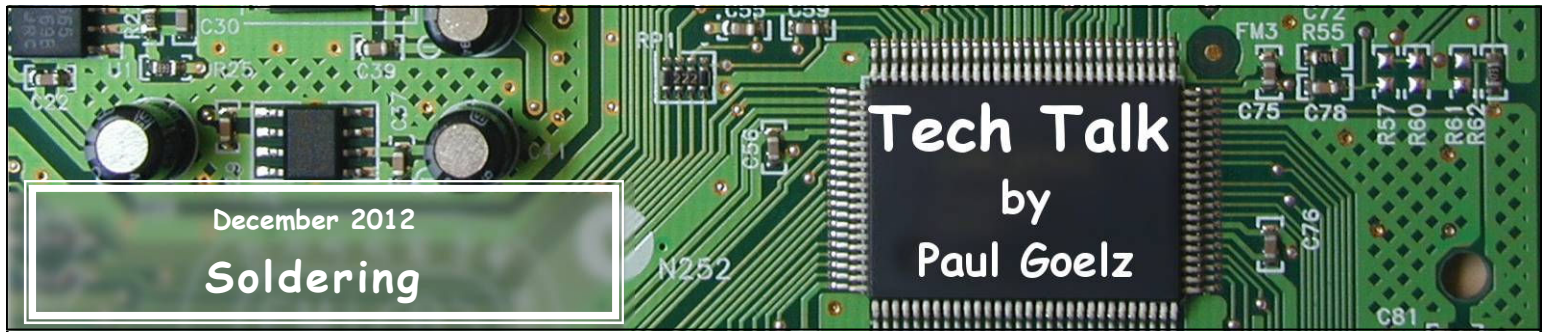
Until next month, "Keep it real (looking)".

Gary Weeks

(weaksgt@yahoo.com)



Test fit of hardware as plans are being drawn



December 2012
Soldering

Tech Talk by Paul Goelz



Soldering is a simple task but it is also a complex skill. Doing a clean, solid and reliable soldering job is not always easy for the beginner. You need the right tools.... And you need practice! You also need steady hands and good eyesight, but there are aids for both that can help.

Soldering can be described as welding two surfaces together using a lead alloy. A 60% lead 40% tin alloy is used because it melts at a relatively low temperature and flows onto most electrical surfaces such as copper, steel and brass. It does NOT flow well onto aluminum.

In this month's column, I'll break soldering down into the several phases involved in getting a reliable joint.

Tools

Soldering iron. The most obvious tool required is a good soldering iron. There are MANY choices available, from simple \$5 un-regulated irons at Radio Shack to \$1000+ soldering stations. Since one of the critical parameters to a good soldering job is an appropriate heat level, I strongly recommend an adjustable temperature regulated iron, preferably with a digital display. Be prepared to spend between \$100 and \$150. Be sure the iron is from a well known manufacturer so that tips will be available into the future. Don't be tempted by something from an unknown manufacturer on Ebay.

I use a Weller WESD-51 soldering station. It is available new on Ebay for about \$120 and would be a valuable addition to any RC hobbyist's tool box.



Weller has been around for decades and tips are easy to find. For the WESD-51, you can find a wide assortment of tips, from very small to very large.

You CAN solder with a simple inexpensive un-regulated iron or (shudder) a soldering gun, but you will find that keeping the tip in a usable temperature range... hot enough to make the joint but not so hot that the tip oxidizes quickly and contaminates the joint.... is much

harder. With an unregulated iron, if you need to solder to large and small surfaces you will need a couple irons of varying wattage. The higher wattage irons will not stay clean very long because they get hotter and the tips oxidize.

Most regulated soldering irons come with a holder for a dampened cleaning sponge. However, I prefer the newer style of tip cleaner made from what looks like a brass Brillo pad. It does not contaminate or shock cool the tip and requires no water.



Magnifying light (if needed).

Solder. Solder is available in a wide range of diameters, alloys and flux type (if any). A good solder diameter for all around use is about 0.30". For electronics use, use rosin core solder only, and look for alloys in the 60/40 range (60% lead, 40% tin).

Flux. Flux is an essential part of the soldering process. It helps the solder flow onto the surfaces to be joined and it also helps deal with mild surface oxidation. There is normally sufficient flux in the center of "rosin core" solder. However, I keep a tube of flux on hand (from Radio Shack) and use a tiny drop when I am soldering to a battery terminal. The flux on the terminal helps keep the metal clean as it heats and allows me to make the joint faster.

Surface preparation

Surfaces to be soldered MUST be clean and free of oxidation. Copper must look bright and shiny. The soldering process can deal with small amounts of corrosion, but the cleaner the surfaces are, the quicker the solder will "wet" each half of the joint and the quicker the joint can be made.

You can make a reliable joint much quicker if one or both halves of the joint are "tinned" first. "Tinning" simply means that you solder each half of the joint separately before joining them. This covers the bare surfaces with

(Continued on page 5)

(Continued from page 4)

solder, which stops any further oxidation. Second, it allows you to place the two tinned surfaces together and quickly make the joint by heating one or both and reflowing the solder. Since the solder has already flowed over all the contact surfaces when you tinned them, all you need to do to make the joint quickly is to heat the surfaces and let the solder flow again.

How hot?

Here is where the value of temperature regulated adjustable iron becomes obvious. You want your tip hot enough to quickly raise both halves of the joint above the melting point of the solder, but not so hot that the tip or the solder oxidizes before the joint is made. If you are soldering to a connector, you also don't want to get the contacts so hot that you soften or melt the connector shell itself. Make the joint quickly and remove the heat before you melt plastic.

I have found that a good general purpose temperature is around 700 to 720 degrees F. In that range, you can make quick, clean joints and the tip stays clean. If the iron will be sitting idle for a while I sometimes dial it back to below 700 to keep it cleaner longer. If I am soldering something large (or burning the insulation of enameled wire), I will temporarily dial it up to 750 or even 800 to make the joint, but above about 720-750, the tip oxidizes rapidly and needs to be cleaned carefully before each joint. I never leave my iron idling above 720 degrees.

Joint types

Wire to wire. If you are making a joint between two wires, there are a couple techniques. The most secure is to twist the two un-tinned wires together and then solder the joint, flowing the solder into the joint. If you are not looking for the ultimate in mechanical strength, you can also tin each wire end and then reheat and join the overlapped ends.

Wire to connector pin. Tin each end of the joint and then solder the overlapped ends.

Wire to battery terminal. If the battery has terminals, tin the wire and the terminal and then solder together. If the battery does NOT have terminals (like a typical NiMh AA cell, for example), be very careful. It is very easy (especially at the positive terminal) to overheat the cell and damage the internal seal. Sand the terminal where you will be making the joint and then immediately tin it, using enough heat to flow the solder quickly. This takes practice and judgement. Once the terminal is tinned, you can make an overlapped joint by laying the tinned wire on the terminal and re-heating.

Making the joint

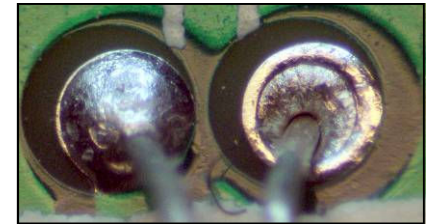
Regardless of the joint type, the actual act of soldering two surfaces together requires that both be brought to soldering temperature in the presence of a small amount of soldering flux.

The steps I use are:

- Clean the tip
- Tin the tip
- Place the two surfaces to be soldered together
- Apply the clean and tinned tip to one of the two surfaces and feed a small amount of solder into the place where the tip is contacting the surface to be soldered. This molten solder helps speed the heat flow and adds to the joint.
- Watch the joint as it heats and feed more solder as needed to ensure that solder flows evenly over and through the joint.
- Do NOT use too much solder. A proper joint will have a fillet of solder around and in the joint, but you should still be able to see the area where both surfaces come together.
- As soon as the solder has flowed evenly, remove the heat and prevent the joint from moving before the solder solidifies.

A successful joint will look clean and bright.

A joint that was contaminated with oxidation or moved while cooling will look dull or even granular.



In the photo above, the joint on the left is clean, bright and shows good flow from the circuit board pad onto the wire. The joint on the right, however, is dull and the solder has not flowed onto the wire. This joint will likely fail or become intermittent.

This has been an overview of the soldering process. There are many subtle variations, but they share many common aspects. Regardless of whether you are soldering a tiny component on a circuit board or a #10 wire to a battery connector, you need clean surfaces, solder, flux, and enough heat to make the joint but not enough to damage the components.

Until next month (LEDs)... Paul Goelz

paul@pgoelz.com

Indoor flying at Ultimate Soccer



MERRY CHRISTMAS



Once again the staff at Ultimate Soccer is helping the needy children of the community with a toy collection campaign. A wrapped (with a label with gender and age) or unwrapped gift can be left at Ultimate. Continuing the tradition started last year let's make Tuesday December 18th the day that Skymasters and all the Indoor Pilots make their contribution.

Same as last year for each gift (wrapped or unwrapped) having a value of \$10.00 or more the person making the donation will receive a drawing ticket or for each \$10.00 cash donation the donating person will receive a drawing ticket. Skymasters will have many items which have been donated by our sponsors for this special drawing.

Last year we raised over \$1,000.00 in cash and gifts. __

Let's try to top it this year.

**Make Christmas at Ultimate Soccer
even more memorable for the kids
and those in need!**



**Pilots don't forget bring your gift Tuesday,
Dec. 18th.**



Please welcome another signed off pilot!
Kurt Holderness (right) and his dad, Pete.

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



Indoor Flying

every Tuesday

11AM to 1PM

At Ultimate Soccer,
Opdyke and South Blvd
Pontiac, MI

SPECIAL 4 hour session

Wednesday Dec 26th

11AM to 3PM

Skymasters Christmas Party

Thursday, December 13th

6:45 to 8:45pm

At the Orion Center

1335 Joslyn Road

(just south of Clarkston Road)

Lake Orion, MI

*A Family Christmas Celebration with
the Skymasters RC Club of Michigan*

*You and your family are invited
to join us on Thursday, December 13th,
at The Orion Center, 1335 Joslyn Road,
Lake Orion, MI 48362*

Appetizers at 6:30 p.m. Dinner at 7:00

Please bring a dish to pass

*Santa Clause will be making a
special appearance
for the children*

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

December 2012

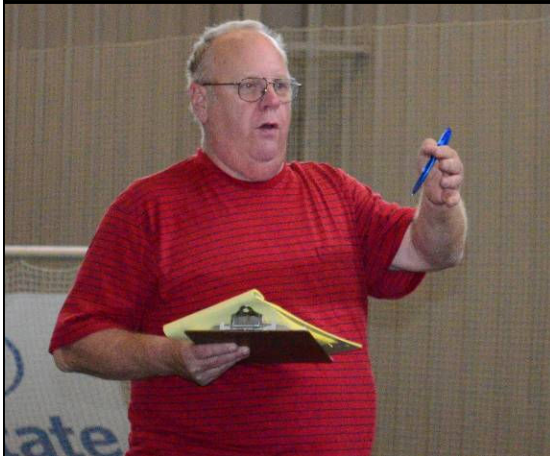
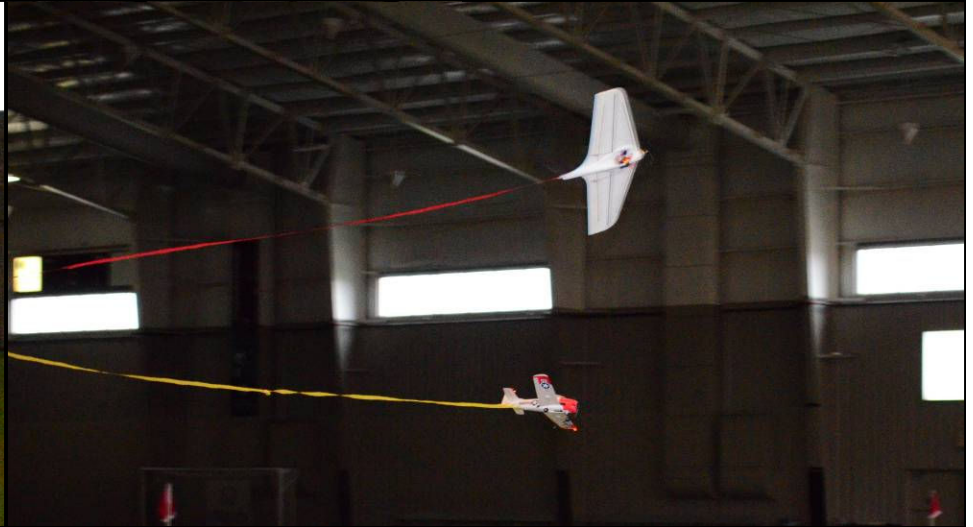
SUN	MON	TUE	WED	THU	FRI	SAT
						1
2	3 Breakfast at the Red Olive On Walton, across from Crittenton Hospital 9AM	4 Indoor flying at Ultimate Soccer 11AM-1PM (Streamer combat after)	5 Skymasters board meeting 6:45PM-8:45PM Oxford Library	6	7	8
9	10	11 Indoor flying at Ultimate Soccer 11AM-1PM	12	13 Christmas Party 6:45-8:45 Orion Center	14	15
16	17 Breakfast at the Red Olive On Walton, across from Crittenton Hospital 9AM	18 Indoor flying at Ultimate Soccer 11AM-1PM (Streamer combat after)	19	20	21	22
23	24	25 Merry Christmas!	26 Indoor flying at Ultimate Soccer 11AM-3PM (special, 4 hours)	27	28	29
30	31 Krazy Snow Fly At the Scripps field					

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
Deadline is the 20th of each month.
The Skywriter newsletter is published monthly by the Skywriters Radio Control Club of Michigan
www.skymasters.org

Indoor streamer combat at Ultimate Soccer

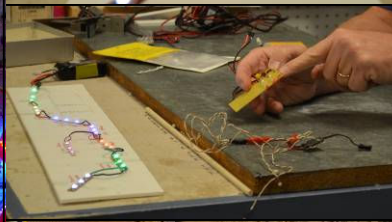


LED Lighting Seminar At Flightline Hobby

Saturday, November 17th

Pete Foss led an LED lighting seminar at Flightline Hobbies on November 17th. Pete discussed many aspects of LED lighting as it applied to model aircraft for night flying. He brought in examples of the various ways LEDs can be wired, and several modelers brought examples of lighted aircraft.

The seminar was very well attended.





Skymasters R/C Club

Indoor Electric Flying



Ultimate Soccer Arenas
867 South Blvd., Pontiac, MI
2 miles south of the Pontiac Silverdome

In conjunction with the Radio Control Club of Detroit

Wednesday, Dec. 26 from 11 AM to 3 PM
Christmas Holiday Event

4 Hours of Flying - \$15.00

*Special Family Rate With Parent Supervision
Or 2 Punches on 5 Session Card – Gold Card Event Included
Spectators Free - Great Lunch Available



**Large Enough For Simultaneous
Sport, 3 D, Micro, and Heli.**
See rules for size and weight limits.

Support your local hobby shops and our sponsors:



All Pilots must have proof of current AMA Membership

For more information call Roger Schmelling 248-321-7599

Visit our web site at www.skymasters.org

* Single Session Rate for Parents - Family Members Under 12yrs Free at Discretion of Event Director



Skymasters RC Club

Krazy Snow Fly



Monday December 31, 2012
event begins at 10:00 a.m.
Scripps Road Flying Field

Field is 4.8 miles north of the Palace of Auburn Hills on West Scripps Road 1 miles west of M-24 and 1 mile east of Joslyn Road



- * Open to the public—come and see this exciting hobby!
- * Flying open to AMA members—pilot prizes
- * Refreshments & Snacks available during event
- * Restroom available
- * Lots of parking—require a “state park recreation pass”
- * Contact: [Paul Zabawa 810-678-3332](tel:810-678-3332) for more info
- * go to www.skymasters.org



SWAP MEET

January 19th, 2013 9am - 3pm

Whitmore Lake Middle School Gym

8877 Main St. Whitmore Lake, Michigan 48189

BUY - SELL - TRADE

Free parking! - Tables Starting at \$10.00!!

Admission Tickets \$3.00 at the Door

Setup between 7:30a and 9:00a

Doors open from 9:00a until 3:00p

Complete models, kits, parts, modeling paraphernalia, tools and just about anything you could imagine for RC is here! Start the new flying year with new equipment or clean out your hobby area! Come talk shop with other club members from all over! It's time to gear up for another flying season!!

Register for a table at

<http://hamburgflyers.org> or email us at

mike.kontz@hamburgflyers.org

Visit our website at: <http://hamburgflyersrclub.com>



On Sunday November 4th there was a special gathering at the annual Midwest R/C Swap Shop in Northville.

AMA District 7 VP Tim Jesky presented 92 year young Paul Floccari with a Distinguished Service Award. Paul has been responsible for teaching untold modelers how to build and fly over 8 decades of aeromodeling.

With Jesky present it was the perfect time to present the newest winner of the Goldberg Vital Person Award. Keith Shaw was totally surprised to be the 2012 honoree. Keith was nominated for his never ending promotion of electric flight. Gary Weeks was the 2010 Goldberg winner. Ken Myers was honored in 2011.

Joe Hass

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 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!

