October

Skywriter

2012

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

In this issue:

From the President...

Hello Skymasters!

With the month of September behind us for the most part, I bring you this President's message. I will start by reaching back to the final event in August. Our second largest member attended event this year was the ***Corn and Pig Roast*** along with ***Top Gun***. The pig was picked up and prepped the day before the event by David Wendt. After soaking in marinate made from special oranges for a day, David set up the fire pit early in the morning, and roasted the pig all day "Cuban Style". While the pig was wrapping up, the "Michigan Sweet Corn" was put on our new corn roast grate, compliments of Fred Engelman. Both The corn and pig came out to perfection, and everyone was fed well!

After dinner it was time to get the 2012 Top Gun contest started. This year there were five pilots that competed: John Fischer, Ken Gutelius, John Billinger, John McFarlane and Frank Genovese flew for the coveted trophy. John McFarlane is one of our new pilots signed off this year, and gave everything he had bringing the cheers of "Lower! Lower!" John was strafing his trainer plane inverted just feet off the ground! Typically low and daring is what will gain a pilot the needed votes for "Top Gun". Frank Genovese put a twist on this year's competition and requested permission from all pilots to fly his vintage Midwest .35 Magician .35 control line airplane. Frank put on a truly fantastic flight that had everyone on the edge of their seat, showing some people U-control for the first time. The breeze was fairly strong forcing Frank to use his nimble feet several times to keep the lines taut. After all the votes were counted

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up, Frank was crowned Skymasters 2012 Top Gun pilot. The trophy was humbly accepted, and Frank gave nice little victory speech at the end.

I would like to thank David Wendt for doing such a fine job on the pig this year! Also big thanks to Fred Engelman for fabricating a top notch grate for roasting the corn this year and many years to come. I would like to thank ALL first year to long time Skymaster members that stepped up and helped prepare the fries, pig, and corn.

Midwest Regional Float Fly:

Ed Saumier, Fred Engelman and Dave Shea led a nice sized group of Skymasters to setup for this year's Midwest Regional Float Fly. Bill Dezur and crew had the kitchen set up along with newly created signs from Mark Smith; "Billy D's Burger Shack". By Friday evening most everything that was storm proof had been placed, but leaving some additional items to be taken care of Saturday morning.

Greg Cardillo held a pilots meeting while volunteer Skymasters were finishing setup details on the beach. Although the final event preparations fell into place, Mother Nature was not going to cooperate! Only forty eight of seventy seven pilots for the weekend actually reported in for flying on the opening day. Saturday's highlight was a quarter scale Piper Cub on taxi being blown backward until the nose was pointing straight up to the sky. Nearly the entire fuselage was straight down in the water and almost up to the trailing edge of the wing. Somehow the pilot was able to right the ship, and he actually proceeded to fly a successful flight!

Mike Weltyk, from Oxford, MI and a neighbor of Pete Foss and Bob Burns flew in with his newly painted Maule Rocket. Mike's Maule is absolutely stunning, painted white with modern navy blue stripes and floats to match. Onboard were Mike's son and Steve Fredericks. Steve had his newly reconstructed quarter scale Maule Rocket, but declined to fly due to the wind gusts of up to 30 mph.

Saturday evening, "Bar None Steak and Fish Catering" (formerly EG Nick's) delivered a fine dinner for those who participated. The meal consisted of Greek salad, bread sticks, baked mostaccioli, barbeque and lemon pepper chicken. For desert, Bill Dezur made his usual fantastic peach cobbler in his Dutch oven. Once the sun went down, those who stayed within the park gathered around the Burns' camp to enjoy some beverages, s'mores, stories, and reminiscing. For those who have not stayed overnight in the park, this social gathering is a major highlight of the float fly!

Front Cover:

Mark Smith in the retrieval boat at the 2012 Midwest Regional Float Fly. Yes, that really is a float plane!

Fred Engelman photo

Sunday morning, Greg Cardillo headed up a team to bring early birds and those who stayed overnight a nice pancake, bacon and fried egg breakfast. The lake had a mystic fog rising from the water just before the flying started, and Mark Smith's "Snoopy" was dropped in the water for another try with Dave Shea at the controls. After a couple long high speed attempts to get Snoopy airborne, the dog house broke from the water on the third try only to do a very tight loop back into the water. The center of gravity is still being sought after, but when it is finally found, Mark's Snoopy dog house will be a show stopper.

When the flying started for the day, the winds were manageable for most, and they would stay that way for most aircraft that the pilots showed up with. All weekend long the "Wisconsin guys" were flying in formation with either foamie Seawinds, or the newer Icon A5's, wind or not! This group of guys truly knows how to have fun!

Just after noon, Walt Plentis and his son Walt Jr. flew in to join us again this year in a full size Piper Cub. Over the years Walt has helped us by offering a flight to the lucky winner of a drawing usually held at the end of the event, and this year was no exception. Skymaster Joe Rubenstein was the lucky winner this year!

Our small drawing prize was a ParkZone RTF Aeronica Champ for each day. Mark Smith CNC wire burned micro floats for each plane, and Dave Shea stayed up to the wee hours leading into the event painting and rigging the floats. Joe Hass won one of the pilot super prizes, a Harrier 3D and in turn gave the kit to Walt Plentis Jr.

During the event, the kitchen remained steady, and tried a new twist this year by doing French fries. David Wendt got the deep fryers heated up while slicing the potatoes. David had the process off to a good start, and then Ron Bernot took over for the rest of the day. Bill Dezur spent a lot of time on the kitchen trailer this year to make all aspects easier for set up, use, and tear down. Our Skymasters kitchen trailer has never been so well organized, and efficient to use.

When all was said and done, this year's Midwest Regional Float Fly was another huge success. The accomplishment would not be possible without the volunteers that show up and help run the different stages and areas of the event.

I would like to thank David Wendt for being the Event Director, Dave Shea for being the Master of Ceremonies. Both Dave's did far above and beyond just what their titles were.

Also a special thanks to the following volunteers:

Fred and Edith Engelman stepped up and ran the registration table again this year, and that is not all; Fred kept a keen eye on areas that needed help all weekend long. Bill and Louise Dezur led the kitchen, with Ed Saumier, Jim Wynn, Ron Bernot, and first year

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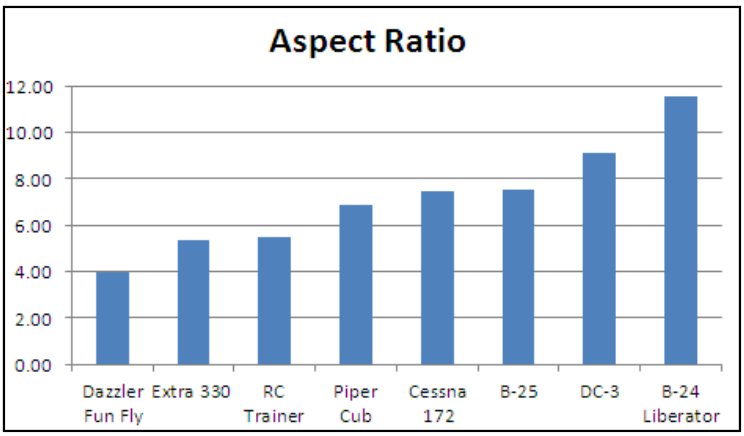
Scale Tails

By: Gary Weaks

October 2012

What makes some scale models easier to fly than others? To answer that you need to look no further than your R/C trainer. Scale models come in a variety of shapes, wing configurations and airfoils. Trainers, on the other hand, share some common features that are not always part of a scale subject. For now, let's confine our discussion to what happens after the plane leaves the ground, so landing gear configuration can be another topic. Much of what makes a plane easy (forgiving) to fly is the speed at which the stall occurs and where it initiates on the wing. So before choosing that next (or first) scale subject, let's talks about some flying characteristics you may want to consider.

There are many features of an aircraft that affect its flight. We know from earlier discussions (see Scale Tails April 2012) as we scale down an airplane, we lose lift faster than we lose weight. So, size is a big (pardon the pun) contributor. Large scale airplanes look complicated, and mechanically they are, but flying qualities are notably improved with larger size. This is one of the reasons that IMAC planes are so big (in addition to impressing the judges).



Aspect ratio (AS, defined as the square of the wingspan divided by the wing area) is another contributor. Long, narrow wings, such as those on a B-24, are examples of a high aspect ratio while large cord wings, such as on a fun-fly airplane are examples of a low aspect ratio wing. The angle of attack where the stall occurs is much greater (and hence more forgiving) in a low aspect ratio wing than in a high aspect ratio wing. Most typical aircraft stall at an angle of attack of around 10 to 15 degrees, while delta wing (very low AS) aircraft don't stall until much higher, usually between 25 and 30 degrees. This is why you will not find a B-24 performing a Harrier (high angle of attack) landing, it simply stalls too soon. See the chart (above) of aspect ratios of some popular aircraft.

Another critical feature of a stall is where it initiates on the wing in relation to the ailerons. Rectangular wings stall first near the fuselage (wing root) allowing the ailerons to still be in a usable air stream. Tapered wings, on the other hand, tend to initiate the stall near the wing tips. If the ailerons are only on the outer portion of the wing, they lose their function and a violent tip-stall can occur. So why do aircraft designers use tapered wings? The answer is efficiency. The taper lowers drag and makes the plane faster. An elliptical wing is a good compromise since it has lower drag and the stall initiates evenly across the trailing edge of the wing.

One way to lessen the effect of tip stalls is to build in wash-out. This is to put a slight twist in the wings in a way that the tips have a lower incidence than the root of the wing. Therefore the tips always have a lower angle of attack than the root forcing the root to stall first. This only applies to planes than are staying up-right, If you intend to fly inverted a lot don't use wash-out as it will work against you while inverted. I have included a picture of a Boeing 777. If you look at the root of the wing you can see how much more incidence it has than the wing tip. You can almost see the bottom of the root at the same time as the top of the wing tip. This is wash-out.

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Another way to design against tip stalls is to use wing droops also known as slats if they are movable. Recently, I was working with a student and wanted to demonstrate tip stalls at a safe altitude. His trainer had droops and I was unable to force a violent tip stall. They really work!

Other design features include the dihedral angle which helps stability. Airfoil shape for low speed lift enhances model flight performance as well as long pitch moments. Pitch moments are basically the distance of the tail to the center of gravity. More moment makes for a more stable airplane. A Pitts Special has a notoriously short pitch moment but makes for a great ride if you are a skilled pilot.

O.K., so let's apply all of this to a common situation; Let's say that we are signed off on a .40 sized trainer and want to pick up a .40 sized Piper Cub as our first scale airplane. At first glance the Cub looks likes trainer so it should be as easy to fly, right? Let's list the features and add them up is a very simple +/-/0 way: Wing aspect ratio (-), Density or weight (0), Wing shape (0), Dihedral (-), Location and shape of ailerons (-), Lifting airfoil (0), Washout (+, if you include it), Size (0), Wing droops (-, if you enjoyed them on your trainer), pitch moments (0). So, we have 4 minuses, 1 plus, and 5 evens. It will be that much less forgiving than your trainer and we have not even discussed the difficult ground handling of a tail dragger. So, consider all of the design features of that next scale airplane and watch how well comparable models fly before settling on a project.

Speaking of flying, I successfully flew Terry Overton's Gauntlet biplane that you read so much about in my articles. I have included a couple pictures for you to enjoy. Boy, there is nothing like a fat, round bi-plane in the air! And, I can't think of a better way to honor such a wonderful life as to complete and fly the model that he had engineered, drawn and started construction of at the time of his passing. Terry's inspiration to me and scale builders everywhere truly lives on!

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

Gary Weaks (weaksgt@yahoo.com)

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Skymaster Bob Chapdelaine. Keeping things organized on the beach was Bill Stark leading the crew of David Vigne, John McFarlane, and Eric Nordlie, all first year Skymasters. Mark Smith handled most of the stranded aircraft out past the buoys, while Wade Wiley handled the airplanes from approximately the buoys in to shore. Wade's wife Lynne is a registered nurse, and was onsite with a first aid tent. Greg Cardillo's girl friend Lori and Robert Dukelow (Duke) ran the prize tent for the Champs. For Friday's set up, John Hakala and Allen Mrock helped set up, while Duke, David Wendt, Dave Shea, Ed Saumier, Mark Smith, Joe Hass, Greg Cardillo, and first year Skymaster Bob Chapdelaine helped tear down. I am certainly sure there are some names missing, so please forgive me!

Greg Cardillo took pictures for the possibility of an article in "Flying Models Magazine". I know that there were many more Skymasters that helped, so I would like to thank all of those that I have missed in this note. Thanks, Greg!

I would also like to send out a special thanks to Walt Plentis and his son Walt Jr. for helping in the tear down efforts after the float fly was over with!

All Skymasters club operating positions up for vote in 2013:

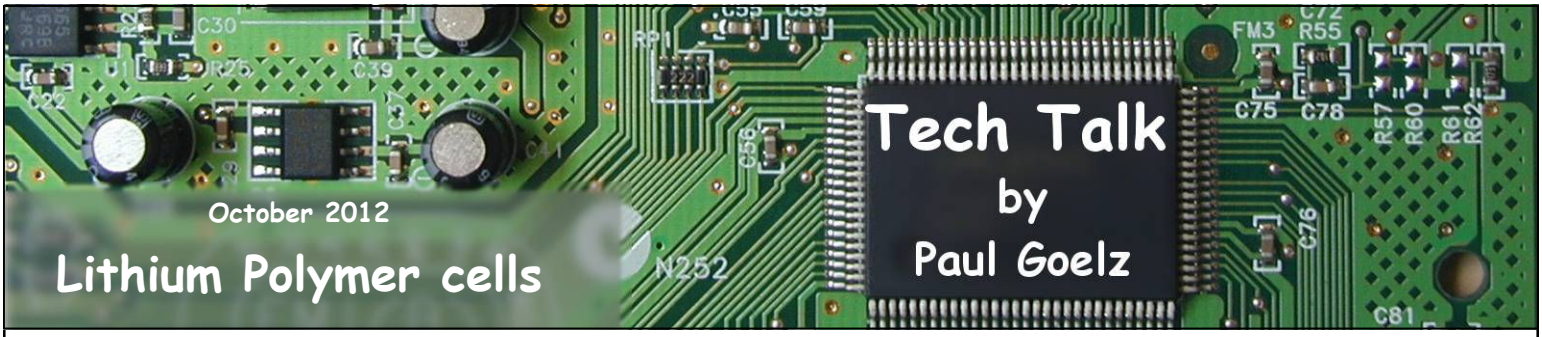
President, Vice President, Secretary, Treasurer, and the additional three Executive Operating Committee positions are open to those who may wish to run for any one of them. If you feel you are interested, please throw your name in the hat for the November elections.

Also, the club will be in need of a new Chief Flight Instructor for the 2013 season.

Until next month, keep flying!

David L. Lange

President, Skymasters



Hello Skymasters! Paul Goelz here, your Skywriter editor. With this issue of the newsletter, I am introducing a new column I am calling "Tech Talk". In uncoming issues, I will talk about various model aviation related technical subjects near and dear to my heart, including batteries, radios, ESCs, gyros, engine tuning, and whatever else comes to mind. I am also open to suggestions…. If anyone has a subject they are curious about, let me know and I will see what I can come up with. OK, this month's subject is….

Lithium Polymer cells

There is a lot of confusion and mis-information surrounding LiPoly cells. Some of the mis-information is rooted in fact and some is not. Some is the result of the way information propagates on the internet. Here is my contribution ;)

Charging (general)

To charge any battery, we pass current through it in order to affect the internal chemistry and replace energy that was removed during discharge. Exactly how this is done depends on the battery chemistry. Since the charge reaction and the charger are not 100% efficient, charging must replace the energy removed during discharge PLUS any charging inefficiency. Typically, if you removed (for example) 1000mAH (one amp hour) during discharge, you would have to charge until the total power expended was about 1200-1500mAH.

LiPoly

Lithium cells are similar to NiCd and NiMh in that they use a chemical reaction to store and release energy. However, there are several CRUCIAL issues that we must be aware of to avoid cell damage and/or fires. Lithium cells also begin to degrade the moment they are manufactured. This degradation continues until they are discarded. It can be accelerated and moderated but it cannot be totally prevented. Unfortunately, some of what I am about to present is based on experience rather than hard data since hard data from the actual cell manufacturer is not available to us in the modeling community.

LiPoly charging

A LiPoly charger limits the charge current to (typically) 1C (ie., 1X the cell capacity in mAH) until the pack voltage reaches 4.2V/cell. At that point, the charger limits the voltage to 4.2V/cell and the current gradually decreases until it reaches a small fraction of the normal charge current. At this point the cell is considered fully charged and the charger shuts off. IMPORTANT…. You CANNOT charge a LiPoly pack using a NiCd or NiMh charger, and especially not using a continuous "trickle charger" like common wall wart chargers. If you do, the pack will be overcharged and could ignite.

LiPoly maximum voltage

The absolute maximum allowable cell voltage for a lithium polymer cell is 4.2V. This is the end of charge voltage, and is usually very accurately controlled by the charger (but see the section on cell balance). Note that I have found some data that suggests that cell degradation increases very rapidly above 4.2V and also suggests that cell degradation actualy begins to increase slightly below 4.2V/cell.

LiPoly minimum voltage

A lithium cell must never be discharged below 3V per cell under any circumstances (***INCLUDING under load***). This has always been the published discharge limit for LiPoly cells, but recent experimentation and "street wisdom" suggests that a higher voltage may be more appropriate if long cell lifetime is desired. I am currently using 3.5V/cell as my absolute minimum discharge voltage. Unfortunately, it is not easy to monitor cell voltage under load unless you have either an ESC that records flight data (such as the Castle Creations Ice series) or inflight telemetry. By the time you land and power down, the cell voltage(s) will rebound and will not reflect the actual minimum cell voltage in

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flight. Difficult to monitor or not, it is my belief that excessively low cell voltage *under load* is one of the major contributers to premature cell failure.

Cell balance

Per the above two paragraphs, LiPoly cells degrade rapidly if the voltage is below 3V or above 4.2V for ***ANY*** reason. So lets look at what happens in a three cell pack where two cells are at 3.7V and one of the cells is at 3.6V when charging begins. When charging commences, the voltage of all three cells rises slowly. However, one cell is 0.1V lower than the other two and remains so during the charge. A non-balancing charger only senses total pack voltage, and will limit the charge voltage to 3 X 4.2V, or 12.6V. With one of the three cells 0.1V lower than the other two, this means that when the charger senses a total pack voltage of 12.6V, two of the cells have in fact been driven above 4.2V and have been damaged. Because most balancers have a very limited discharge current rating, this can happen even when using an external balancer unless the balancer is used before charging. A balancing charger eliminates this issue completlely, since it senses all cells individually and ensures that no cell is overcharged.

Lipoly storage

Remember I said earlier that LiPoly cells are continuously degrading? Unfortunately, this degradation continues even in storage. It increases with increasing voltage and/or temperature. Cells that are stored at or near full charge and / or at elevated temperatures will degrade faster than cells that are stored at reduced voltage and temperature. Brand new cells are typically shipped at 50% charge, since this is the best compromise between degradation due to high cell voltage and degradation due to cell damage below 3V. However, it is not always practical to store cells at exactly 50% charge, so what I do is store tham anywhere between 20% and 80% charged. When my flying day ends, and cells that are discharged below 80% are stored as-is. Any that are still fully charged are flown for a few minutes to drop them below 80% so thay can be stored.

Since cell degradation is reduced at lower temperatures, I also store my packs in a small refrigerator if they will be un-used for more than a few days.

Note: The safe maximum voltage for a LiPoly cell is 4.2V *at room temperature*. However, that maximum safe voltage is 4.1V *at reduced temperaures*. In other words, a fully charged pack is in fact OVERCHARGED and subject to higher degradation if it is then placed in a refrigerator. Another reason to store LiPoly packs at 80% charge or below.

Safety

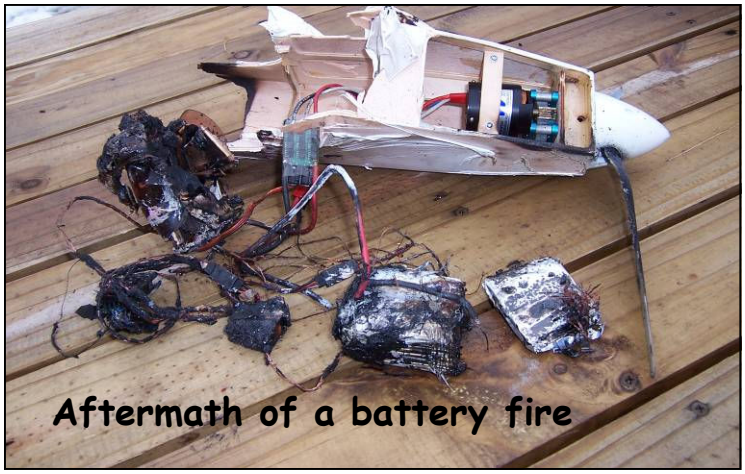
To be blunt…. LiPoly cells are great but they can be dangerous. They can ignite if severely over charged (due to operator error or charger malfunction). Once ignited, they can be difficult to extinguish since the combustion produces its own oxygen. They can also ignite if they are damaged in a crash… sometimes minutes or hours later. There are many horror stories on the internet of serious fires due to damaged or over charged packs. Please ***PLEASE*** always charge in a safe place and be extra cautious with crashed packs. I rarely charge in the house and when I do, the packs are in the basement, in an ammo can with the lid closed loosely to act as a flame arrester. I never charge in the car under any circumstances. And I always store my packs in an ammo can.

LiPoly summary

- Never discharge below 3V/cell ***including under load*** and recent experience suggests that 3.5V/cell may be a more reasonable voltage limit.
- Never charge above 4.2V/cell and always use a balancing charger
- Never store fully charged… store between 20% and 80%
- If possible, store in a refrigerator (at less than 80% charge)
- Never charge unattended
- Always charge in a flame proof container when you have to charge indoors

OK, that's it for this month. Next month's topic will be NiCd and NiMh cells. Until then, please feel free to ask me any questions this article stirs up. I'm available at the field or at **paul@pgoelz.com**

Paul



Aftermath of a battery fire

2012 Midwest Regional Float Fly

September 8-9, 2012 (Fred Engelman photos)

ON THE WING

Skymasters Breakfast resumes

Starting October 1st.

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

October Skymasters Meetings

Thursday, October 11th
Thursday, October 25th
6:45 TO 8:45 pm
At the Orion Center
1335 Joslyn Road (just south of Clarkston Road)
Lake Orion, MI

Night Flying is a GO !

Join us for night flying every Saturday evening in October until 10PM, at the Scripps field. Electric aircraft only after 8PM. See flyer in this issue for details.

October 2012

SUN	MON	TUE	WED	THU	FRI	SAT
	1 Skymasters Breakfast 9 AM Red Olive, Rochester Hills	2	3	4	5	6 Night Flying at Scripps until 10 PM (electric only after 8PM)
7	8	9	10	11 Skymasters Meeting 6:45 PM Orion Center 1335 Joslyn Lake Orion	12	13 Night Flying at Scripps until 10 PM (electric only after 8PM) PMAC Jet Jamboree
14	15 Skymasters Breakfast 9AM Red Olive, Rochester Hills	16	17	18	19	20 Flightline seminar Night Flying at Scripps until 10 PM (electric only after 8PM)
21	22	23	24	25 Skymasters Meeting 6:45 PM Orion Center 1335 Joslyn Lake Orion	26	27 Flightline seminar Night Flying at Scripps until 10 PM (electric only after 8PM)
28	29	30	31			

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 Skymasters Radio Control Club of Michigan
www.skymasters.org

2012 Club Officers & Appointees...

President:	Dave Lange	2477 Trinity Ct.	Oxford	48371	248-969-3914
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State Park:	Bill Stark	1010 E. Clarkston	Lake Orion	48362	248-693-8639
Membership:	Joe Rubenstein	155 Cayuga	Lake Orion	48362	248-693-4265

Skymasters at "Barn Daze

Saturday, September 8th, 2012

(Paul Goelz and Ron Wlosinski photos)

This year, Skymasters was invited to participate in the 2012 Barn Daze event, which consists of carnival type activities. We were provided with a large area in which to fly and display aircraft as well as provide simulators and buddy box flights for the spectators. After meticulous preparation by Ken Gutelius and crew, Saturday brought something beyond even his control…. winds in excess of 20MPH. This kept all but the most adventurous pilots on the ground, but the simulators were busy for most of the day. Throughout the day, there were occasional demo flights by airplanes and helis, and my little mQX quad rotor proved to many that it was more than capable of flying in heavy wind.

We handed out Skymasters literature and there were several folks that seemed genuinely interested in checking out the club and field.

Paul Goelz

Skymasters at "Barn Daze" (continued)

Saturday, September 8th, 2012

(Ron Wlosinski photos)

Bill Shaffmaster, our 94 year old nonagenerian, started this giant scale PT-19 about 8 years ago. I bought it from him in February and finished it.

When it was complete, I invited him out on Sunday to see it fly. He had a great time.

Joe Hass

Specs:

82 inch span

1025 sq. in. area

10 pounds

10 cell

5000MAH LiPo

Dualsky outrunner

Skymaster's "Night Owls" Invite You To Come Fly Electrics

Saturdays Evenings in October
10/6, 10/13, 10/20 & 10/27
From 5pm until 10pm

Get a plane ready with lights !!

Electric Aircraft only - night flyers must be quiet.
Flying open to AMA members
All vehicles require a Recreation Passport available from the Sect. of State or DNR
Flying field is located within the Bald Mountain Recreation Area about 5 miles north of the Palace of Auburn Hills on Scripps Road between Lapeer Rd (M24) and Joslyn Rd.
Lots of parking

SKYMASTERS RC
MICHIGAN

Visit our website at www.skymasters.org

MIDWEST R/C SOCIETY

24th annual

R/C SWAP MEET

Sunday, November 4th, 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 table were sold in advance!

For information, call Rudi Reinhard at: 248.631.8205 or e-mail: wwtbk@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 27th
- Thur. Oct. 11th
- Thur. Oct. 25th
- Thur. Nov. 8th
- Thur. Dec. 13th Christmas Party

FLIGHT LINE HOBBY

Just Plane Fun!

(877) 891-8359

FLIGHTLINE HOBBY FREE SEMINARS ARE BACK

Saturday, October 20th @ 11am

RC HELICOPTERS

Joe Finkelstein will go through many aspects of setting up, flying and repairing RC helis, both electric and glow.
Demos –weather permitting!
Question and answer too!

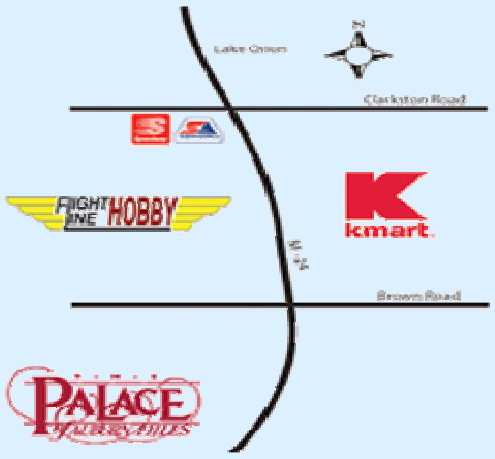
Saturday, October 27th @ 11am

COVERING AN AIRPLANE

John Hoover will go over different techniques, preparation and tools used.

As Always…

The coffee and donuts are free!!



Field Maintenance

During the last couple of weeks, several members have helped with some maintenance items on the tractor and improved the road leading to the field.

Bill Stark purchased a ½ yard of lime stone and he and Dan Stolz repaired the large pot hole at the entrance to the field. They also spread the remainder of the stone on the area that had the deepest wash boarding caused by *excessively high speed and heavy braking* while driving on our road. Paul Zabawa on another day took the cutting deck off the tractor and installed the blade and scraped and graded the road, smoothing it out a lot. He also scraped a lot of the stones in the grass at the edge of the road back onto the road. Thanks for the hard work guys and lets all help the club out by ***slowing down a bit on the way in and out***.

On another item, Roger Schchmelling and Bill Dezur have done a lot of maintenance work on the club's trailers. Bill completly redid the inside of the lunch trailer and Roger has been repairing holes in the corner of the Float Fly Trailer and the resealing it's roof.

Thanks for the hard , guys!

Fred Engelman

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!