AMA SINCE 1936
Academy of Model Aeronautics
Chartered Club #970
10 Year Gold Leader Club

Skywriter

FASST 2.4 GHz Symposium

Nathan King from Hobbico and President Joe Hass present Neil Smith of the Michigan Rock Crawlers with a Futaba 7C FASST radio donated by Hobbico. Thanks for a great evening!

SKYMASTERS RC MICHIGAN

2008 Club Officers & Appointees...

President:	Joe Hass	1142 Brunswick Dr.	Rochester Hills	48309	248-321-7934
Vice Pres:	Paul Zabawa	PO Box 138	Metamora	48455	810-678-3332
Secretary:	Dave Wendt	4549 Sedona	Clarkston	48348	248-969-8738
Treasurer:	Joe Rubinstein	155 Cayuga	Lake Orion	48362	248-693-4265
Editor:	Pete Foss	562 Tanview Dr.	Oxford	48371	248-236-0676
CFI :	Ron Sokacz	40714 Matlock	Sterling Hts	48310	586-977-1404
State Park:	Bill Stark	1010 E. Clarkston	Lake Orion	48362	248-693-8639
Membership:	Gary Weaks	2512 Red Fox Trail	Troy	48098	248-540-8358

PRESIDENT'S MESSAGE…

BY: Joe Hass

TALK ABOUT FINISHING ON A HIGH NOTE With 117 in attendance and 10 clubs represented (including one from Muskegon) the Futaba FASST Symposium was a resounding success! Nathan King did a great job giving us the latest information from Futaba and Hobbico. You would not believe the crowd during the break as Nathan was deluged with questions and people looking for a chance to get their hands on this latest technology. Our thanks go to Hobbico for arranging not only Nathan's visit but the generous prizes. Neil Smith of the Michigan Rock Crawlers won the 7C FASST System.

As an aside, the demo 14 MZ transmitter arrived while we were at Toledo. After we returned Sunday afternoon, I unpacked the boxes to verify everything was intact. Chris checked out the 14MZ as Paula asked "What's that?" Chris responded "Two thousand dollars worth of fun!" It took me quite a while to convince my dear wife that it was only for demo and would be going back. There was a tear in my eye as I walked away from the UPS counter waving goodbye to that wonderful radio.

AND THERE WERE A FEW OTHER THINGS GOING ON TOO Our first meeting in April was to be a discussion of "Why Big Planes Fly Better" with Ken Myers. Unfortunately Ken's mother was taken to the ER so Ken couldn't make it. With a few emails we turned "In the Bones" back on and true to form members brought out a wide variety of projects. George Maiorana, winner of Designer Scale at Toledo with his phenomenal Russian "Bear" was kind enough to bring in the molds, documentation and various pieces of this magnificent bird. George figures he spent over 900 hours just covering it. Over 250,000 rivets were applied. With four counter rotating power plants there were 32 scale prop blades, 32 flying blades, spares, etc. that had to be made from scratch.

Bald Mountain Involvement Day was another huge success. I don't have an exact count *(35 to 40 - Pete)* but I do know that we were well represented and a lot of work was accomplished. Mark Elliot actually biked over to work. I was tired just driving home. Can you imagine how he felt? Then, he is a bit younger. Many, many thanks to all that participated.

And then there was the Weak Signals Toledo Show at the beginning of the month. We stayed at the headquarters hotel from Thursday night until Sunday. It was really a treat to simply walk from the room to the convention floor. Chris helped his friend Jamie Hicks fly at ETOC. There was lot of flying in the convention center lobby until well into the early morning. Our room was a "man cave" with three guys and a lot of airplanes. Skymaster Al Mrock introduced his new aircraft kits (*http://www.classicaero.com/*). These are beautifully designed and executed.

Tuesday, April 29 will be the last day for indoor flying at the Soccer City Dome. It certainly has been wonderful to be able to fly twice a week all winter long. We will give a special thank you to Shelby Township.

AND LOOKING FORWARD TO MAY The Radio Control Club of Detroit will hold their Electric Fly in on Sunday, May 4. This has become a very nice event. Their field is located on Wetzel State Park. Weekly float flying starts on Wednesday, May 7 at the Winter Cove area of Stony Creek Metro Park from 9 until noon. Jim Held is again taking the lead with this (248-641-9724). Thanks Jim.

Our next meeting will be at the field on Wednesday, May 14 for our Field Opening Party. Bring some hand tools and garden equipment as we spruce up the field. Things are in very good shape so there will be a little bit of work, lots of food and some time for flying.

Our first Float Fly events of the year are Saturday, May 17 at 7 Lakes and Sunday, May 18 at Bald Mountain. See the flyers elsewhere in this issue. Remember that the Scripps Road Field will be closed while float flying at the lake in Bald Mountain. We will then change over to the new lock combination that you got with your membership card.

Memorial Day is early this year so our first Student Night will take place on Wednesday, May 28.

The Red Bull Air Races will be taking place on the Detroit River on Saturday May 31 and Sunday June 1. Grandstand tickets are reasonably priced and available on the web.

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WHILE ALL OF THIS IS GOING ON, the board has continued to work on bylaw and field rule updates as well as the new lease from the state. As you can expect, these things are always more complicated than they first appear. We are also working to avoid any unintended consequences.

Check out the great article about the Skymasters Club that was recently in the Troy Observer and Eccentric paper. Just click the link below. http://observer-eccentric.com/apps/pbcs.dll/article?AID=/20080413/NEWS17/804130399&SearchID=73314760805145l

It is great to say: See you at the field!

Joe Hass

Congratulations to the entire Hass family on Joe's son David's new baby son Billy!

SKYMASTERS RC MICHIGAN

Skymasters R/C Club

We'll Teach you to fly!

Join the Skymasters Radio Control Club for an R/C Aircraft Event

Bald Mountain Float Fly

Sunday May 18, 2008

Bald Mountain Recreation Area, Lake Orion

Event Flying starts at 10am

Public Welcome!

Flying open to AMA members. 94dBa at 10 feet enforced.

- Lots of Parking
- Refreshments available at event
- Toilet located at field
- Great chance to see this exciting hobby!

No Landing Fee
Pilots Prizes

Main Park entrance is on east side of M24 about 5 miles north of the Palace of Auburn Hills, between Silverbell and Waldon. Follow park road to Trout Lake beach area.
All cars need annual/daily State Park sticker – available at event.

For more information call Dave Wendt 248-703-2318
Visit our website at www.skymasters.org

SKYMASTERS RC MICHIGAN

Skymasters R/C Club

We'll Teach you to fly!

Join the Skymasters Radio Control Club for an R/C Aircraft Event

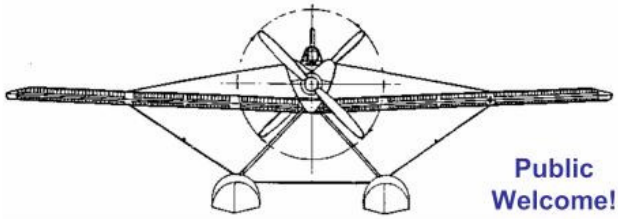
Chet Brady Memorial Float Fly

Saturday May 17, 2008

Seven Lakes State Park, Holly

Event Flying starts at 9am

Please check our website for status the week of the event. Seven Lakes water level is down due to a dam problem. We may need to relocate or cancel this event...



Public Welcome!

Flying open to AMA members.

- Lots of Parking
- Refreshments available at event
- Great chance to see this exciting hobby
- Toilet located at field

$3 Landing Fee
Pilots Prizes

Park entrance is on Fish Lake Rd, just north of Grange Hall Rd. Take I-75 to Exit 101. Go west approx 5 miles (2nd Light). Turn right. Park entrance will be on left. Follow park road to Big Seven Lake beach area.
All cars need annual/daily State Park sticker – available at event.

For more information call Joe Rubinstein 248-693-4265
Visit our website at www.skymasters.org

A123 Batteries with Ken Meyers by David Wendt

Date: Wednesday March 23th, 2008 Larson Middle School - Library
Attendance: 73 people in attendance. RCCD, PMAC, Fraiser, Romeo were some of the clubs present.
New Members: Lowell Debrosse
Swap Shop: Joe did a review of the swap shop attendance and financials.

Flying Dome Activity: A couple of incidents happened at the dome. RC flying was done prior to the scheduled hours and it upset some of the people walking in the dome. Rubber Power flying hours is from 9:00 a.m. to 11:00 a.m. RC flying is from 11:00 a.m. to 2:00 p.m. Tuesdays and Thursdays. Please respect the times and do not put our ability to fly in jeopardy.

Field Issues: The Lease price of our field increased dramatically. There may also other requirements for spotters. What the state is proposing we can live with but we are still going to meet with them to negotiate in the best interest of Skymasters.

A raffle was held for an AMA giant scale hand book. The winner was Mark Smith.

Guest Speaker- Ken Meyers on A123 (Lithium Iron Phosphate) Batteries: This type of battery invented at the University of Texas by Dr. John Goodenough. In 1992 Yet-Ming Chiang at MIT made the cells better and patented the cells and started selling them as A123 cells. The cell is cylindrical in an aluminum canister. It has a nominal voltage of 3.3V and a charge voltage of 3.6V. It has a capacity of 2300mAh, and is capable of 30C (69A) continuous discharges and 60C (138A) pulse (10 second) discharges. Each cell weighs 70 grams (2.47 oz). There are also smaller A123 cells. The advantage of having these cells is stability. They come in strong cylinders. The ESC does not need a strict cut off. 2 volts will work because these cells don't care if you discharge them all the way. They also are very stable on charging. It is very hard to overcharge these cells. The cells can therefore be charged in your plane with increased safety vs. a normal LiPo pack.

Voltage sag is how much the voltage drops during the course of a discharge. A Nickel Metal battery's voltage sags throughout the complete discharge. A Nickel Metal battery is only operating at full performance for part of the discharge. The batteries being produced by A123 Systems, Inc. show very little voltage sag during the discharge. These cells tend to cut off very quickly so don't try for another pass if you notice your cells have dropped off.

These batteries have the fastest charge time for any RC battery. They can be charged to full capacity in 15 minutes or less with a charger capable of providing the input amperage and voltage. Charging at these high rates seems to have no effect on the cycle life of the pack.

A123 cells have many safety advantages over Lithium Polymer batteries. They can be charged very quickly. These cells can be stored at nearly any charge state above half charge. You will get over 300 cycles confirmed. You don't have to wait for the cell to cool off before charging. They are not prone to thermal runaway, which is the leading cause of fire in a Li-Po battery. They will also tolerate over discharge. A cutoff voltage of 2.0V per cell is recommended, but these cells will charge up even if discharged to as low as 1.50V per cell. As with over charging, it is not recommended to repeatedly discharge below 2.0V per cell, as it will affect the cycle life and could cause pack failure.

There are a few drawbacks. Duration for these cells is about 7 minutes for sport aerobatics. Weight is also a drawback. There is also more weight in these cells than a LiPo. These cells are also round and fairly large. Traditional LiPo are very easily available. These cells are a little harder to find. There are no motors or airplanes that advertise the cell usage of an A123.

What kind of planes can these be used in? Any kind of plane that flies on the wing is a good choice for these cells. The planes that fly on the prop you will not want to fly on the A123 cells.

Charging: There are adapters available for the LiPo chargers. An Astroflight 109 charger can be used unmodified but you need to manually stop charging. A chip can be added to the Astro 109 to make this automatic . Big E RC can do the modifications to the 109 for $25.00 Ken showed how to charge directly from a car battery without a charger. The length of the charge wire (zip cord) determines how long the charge will take. The total length of his lamp chord he used was about 9 feet. **This will only work on 3 cell packs. Larger**

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packs must be broken in to packs of <u>three</u> for charging. You can use an AstroFlight Blinky 123 to balance the packs. Do not use a LiPo balancer.

At this time, the cells are available from many sources. For a long time, the least expensive way to purchase the 2300mAh cells was as a DEWALT DC9360 36v 10-cell power tool pack from a source on e-bay. Ken purchased two of these 10-cell packs, at different times, from Cool Breeze Tools for about $100 each, delivered in 2007. They are now up to the $150 range, delivered. With the prices for the DEWALT DC9360 10-cell packs steadily rising, they are almost to the point where purchasing single cells is an option. Single cells do require a little different technique than the "tabbed" cells from the DEWALT packs whose information follows. You'll find a "how to" for single, non-tabbed cells at media.hyperion.hk/dn/a123/packassy/A123packassy.pdf.

Dismantling the DeWALT power tool packs and harvesting the cells is quite easy. This thread on RC Groups by Lucien Miller/aka LBMiller5 shows just how to do it. Mini-How To - Disassembly of a DeWALT 36v Battery. Lucien Miller also has an excellent How To Build a Battery Pack from A123 Cells. Sid Kaufman has figured out the "best way" to take these DeWALT packs apart and make various cell configurations for power packs using the cell interconnects already on the DeWALT pack. The interconnects on the DeWALT pack appear to work okay when used at about the 35 amp static draw being advocated here. Easy Packs from DeWALT 36V Packs (A123 Systems) by Sid Kaufman. Sources for individual cells and packs are listed below.

More complete information and pricing as of April 1, 2008 can be found online at. http://homepage.mac.com/kmyersefo/M1-outrunners.htm

Show and Tell:

Pete Foss – Bob Selman Designs actuator controlled Mosquito. The plane runs on a single cell (90 MAh). Pete also brought a 11 inch wingspan TeeRiffic Jets Mig-29 pusher.

Joey Kollaritsch - unknown airplane with a speed 400.

John Ferguson – 1.5 meter FEK Models entry level hot liner that runs 80 amps at 110 MPH. It weighs 30 ounces and makes about 80 ounces of thrust running on 123 cells.

Ross Jones – Moki 45 2 stroke gas engine for his Pica Spitfire. Ross also showed an on-board temperature sensor he is selling at RJR Cool Tools (www.rjrcooltools.com)

Chris Hass: took first place in electric pylon at E-fest with a Hobby Lobby Strega P51. Chris also brought a Blade 400 3D helicopter and a Radical RC Mini Stick powered with a 300 sized brushed motor and 3 cell lithium. This is a very fast kit to build (and a fast plane to fly).

Teo Terry – LT25 running on a brushless motor with a gear box flying on 5 cells at 23 amps.

Brandon Bartz -In the bones Somethin' Extra.

Wade Wiley - showed us a T-shirt made by Spreadshirts. These shirts can be configured any way you want for about $19.00 www.spreadshirt.com

David Wendt – Kit bash Somethin' Extra. 4120/14 on a 4 cell 3300 LiPo.

George Maiorana AEW by David Wendt

Date:Wednesday April 9, 2008 Larson Middle School 49 people in attendance.
First time attendees: Tony Flioramo who flies several different airplanes.

Wade Wiley was kind enough to bring in a 33AH battery to raffle off at the end of the evening. Chris Hass was mentioned for winning the pylon race at the last E-fest tournament. If you see the trash full at the field, please feel free to change the trash bag and take the full trash bag home with you to discard. April 23 the folks from Futaba are scheduled to talk about 2.4 GHz FASST. April 25th MDOT is doing a symposium in Flint. Captain Hays will be talking about the McDonnell-Douglas airliner he landed without hydraulic fluid. Basically he landed an airliner without the ability to use aileron, elevator, or rudder.

George Maiorana started by talking about the AEW he built five years ago for the Top Gun tournament. George explained how it took him several weeks just to build accurate landing gear for the aircraft. George showed us how he started by making a fuselage plug and then molded the fiberglass. He then explained how he made the wings out of foam and 1/64" plywood. He also showed us the counter rotating gearbox for the propellers. George also made several sets of propellers for the plane. Each nacelle has eight prop blades. The plane requires 32 prop blades. In addition to the several sets of custom flight blades he also built a set of custom static blades. George joked about never building another prop blade. Another challenge about this model was the wing flex. The full scale plane had quite a bit of vertical flex in the wing. To duplicate this effect George built in the ability for his 9' wings to flex upward about 3". The prop blades were made from a mold with carbon fiber and epoxy. This plane will weigh about 32 lbs. George had pictures depicting how he made the landing gear and wheels. George also showed us how he documented his plane.

Show and Tell:

Gary Weaks – Fairy Swordfish built from scratch. The model is powered with an Evolution 35cc gas engine. The plane weighs 16lbs and has an 84" wingspan. Guidance is provided by a JR. Gary's plane was first built in 1996 and had 92 flights on it. This year he refurbished the covering.

Joe Finkelstein - Flight Streak Control line ARF by Top Flite powered by an OS LA25 glow. Magic ARF powered by a Saito 56 with a 12X6 APC prop.

Jim Held – Somethin' Extra with Mark Smith floats covered with 1/16" balsa sheet.

Fred Engelman - Carl Goldberg Tiger 2 kit in the bones. The plane is powered by an OS46. Guidance is provided by a Spectrum D7 with 4 HiTec servos.

Paul Borror – Great Planes Patriot XL kit by powered by an OS 120AX with Airtronics Stylus radio.

Chris Hass - Katana 530 ARF by Hobby Lobby with a Hacker A30-14L.

Wade Wiley – Stinson 108 ARF by Carl Goldberg Models. The airplane is powered by an RCV 1.30 CD Rotary Valve 4 stroke engine. The engine is completely hidden in this plane. The plane has a wingspan of 81" and weighs 12.6 lbs. Supermarine S-4 type float by Sea Commander. The float is for the KMP 104" DC-3.

Teo Terry - Franklin Resti 49" Aresti wing and scratch built the rest of the model. The plane will be powered by a Mega 2220/3 with a 4:1 gearbox. The 51" plane is targeted about 5lbs.

Greg Cardillo – Loening Amphibian kit by Classic Aero. with an Astro 05 geared brushless motor and a Berg receiver with Hitec servos.

Mike Smith – Pica spitfire kit, in the bones.

John Hackala – Fokker Super Universal in the bones. 80" wingspan scratch build plane powered by a Saito 80.

Joey Kollaritsch – SU27 Electric ARF. The plane has a 26" wingspan and weighs 9 oz.

Peter Pirozzo – Pigeon 450 171 Electric Heli.

Bob Crawford- won $28.00 in the 50/50 raffle.

Bald Mt. Involvement Day

UPCOMING SKYMASTERS EVENTS

Stony Creek Float Flying - Wednesdays Thru October
Stony Creek Metropark - 9:00 AM

Every Wednesday the weather allows. Come fly off water at Stony Creek Metro Park on Wednesday mornings. Flying from Winter Cove. Contact Jim Held for more info and to get on mailing list for cancellations.
Starts Wednesday, May 7!!

Skymasters Field Opening - Wednesday, May 14, 2008
Scripps Road Field, Lake Orion - 6:00 PM

FIELD OPENING PARTY - The field never closes for the winter, but how else can we celebrate the beginning of another flying season? Some cleanup and maintenance tasks to be done to get the field ready for spring... dinner at 6pm

Chet Brady Memorial Float Fly - Saturday, May 17, 2008
Seven Lakes State Park, Big Seven Lake, Holly - 10:00 AM

Our first Float Fly Event of the year. It adds a whole new dimension when flying from water - it's also great to watch.
Location subject to change based on status of dam repairs on Big Seven Lake

Bald Mountain Float Fly - Sunday, May 18, 2008
Bald Mountain Recreation Area, Trout Lake, Lake Orion - 10:00 AM

The beach will be closed, and R/C float planes will take the place of bathers. Another fun day on a great float plane site. The Scripps Road Field will be closed for this event due to proximity to the Trout Lake location.

Student Night and Potluck - Wednesdays Thru Summer
Scripps Road Field, Lake Orion - 10:00 AM

Every Wednesday thru Labor Day! Instructors available all day (flying dependent on weather conditions) - Potluck Dinner at 6pm Regardless of the weather! Bring meat (or other) for the grill, a dish to pass, and non-alcoholic beverage. "We always eat, we sometimes fly!"
Starts Wednesday, May 28th!

Skymasters Summer Meeting - Wednesday, June 11, 2008
Scripps Road Field. Lake Orion - 8:00 PM

Summer meetings are short - following student night!

Electric Fly In - Saturday, June 14, 2008
Scripps Road Field, Lake Orion - 10:00 AM

Come see what electric airplanes can do! The advances in technology make anything possible with electric. Any size electric powered airplanes ONLY.

Skymasters Summer Meeting - Wednesday, July 9, 2008
Scripps Road Field. Lake Orion - 8:00 PM

Summer meetings are short - following student night!

Warbirds and Scale - Sunday, July 20, 2008
Scripps Road Field, Lake Orion - 10:00 AM

From P51's to Tiger Moths, Cessna to Tomcats. There should be lots of variety in the air and on the ground. Come see the old Warbirds, Military and Civilian scale planes.

Futaba FASST Symposium by David Wendt

Date: Wednesday April 23 2008 Larson Middle School
Attendance: 117 people in attendance.
Many clubs were represented (RCCD , Monroe, Toledo Weak Signals, Frasier, Michigan ROC association from Wixom., Holly Cloud Hoppers , Hamburg, Flying Pilgrims, Midwest RC, Michigan Whirly Birds, Muskegon, PMAC, Lapeer Wing Nuts.) Pete Waters (AMA Hall of Fame) and George Maiorana (first Prize winner at the 2008 Toledo show and Top Gun team scale place winner) were in attendance.

Congratulations to Joe Hass who is now a grandfather. John Hoover has opened Flightline Hobbies on Lapeer hobbies a couple of miles from the Skymasters field.

Nathan King from Hobbico: Nathan started by talking about the history of the 2.4 GHz systems. Spread Spectrum stated in the 1940s. Futaba was started in 1948 starting with vacuum tube radios. Futaba boasts the "2.4 done right". Futaba uses channel switching at a rate of 500 switches per second. Futaba also pioneered the 2 antenna systems. Futaba has introduced the Easy Link system. To link your transmitter to the receiver you simply press one button. The receiver will then only listen to your transmitter. If another transmitter happens to transmit on one of the channels your is listening on it will drop the transmission packet because the source of the signal did not come from your linked transmitter. With the Futaba FAST system has nearly simultaneous servo movement. There is no real delay that is noticeable even with very fast helicopters.

Questions and Answers:

What transmitters have the zero code problem reported by Futaba? *Less than 1% of the transmitters have the issue. Many of the hobby stores in the area have a device to check your radio. None have been reported in our area.* Why buy Futaba vs others? *Because Futaba jumps so quickly there is no chance for frequency collision issues. Futaba uses the entire band and is a more robust system.* Why doesn't Futaba have Model Match? *Nathan sometimes likes to set up multiple models for a single plane and with model match that cannot be done.* How do you link to the receiver? *You press the button down on the receiver for a few seconds and it is done for that receiver-transmitter pair.* Does Futaba have plans to put out smaller receivers? *Yes they have a 4 gram receiver available with a reduced range of 1000ft.* How far is the normal range? *The link is extremely robust. It is extremely difficult to loose the link. The range is greater than the standard 72MHz radios.* How long does it take to re-establish the link? *Less than a second.* Is there a point when the frequency range gets saturated? *No, it's very fast with a short duty cycle, so you can safely use greater than 40 radios at the same field simultaneously.* Do the receiver antennas need to be oriented a specific way? *Yes the 2.4GHz antennas should be perpendicular to each other.* Will Futaba discontinue the 72MHz transmitters? *Not in the near future.* How long can you fly with a transmitter change? *At least and hour with an alarm on most of the Futaba transmitters if the battery gets too low.* Can more than one receiver be linked to a transmitter? *There is no link limit, but there is limited number of model memory slots on each transmitter that will ultimately limit how may models can be stored.* The higher end radios have a USB port. Will the transmitter charge while connected to a USB port? *No.* When will to 10c be out? *Late May 2008*

Show and Tell:

Paul Borror –.Zero Gravity Pits Python. Hacker A30 with A123 batteries.

Joe Hass – Blender from Fancy Foam equipped with the Futaba FAST system. The plane was designed by Andrew Jesky. The plane weighs 5.1 oz ready to fly with a 2 cell 350 LiPo.

Chuck Hickson- won $68.00 in the 50/50 raffle.

Futaba Prizes: 7C FAST System – Neil Smith of Lake Orion Michigan.

SKYMASTERS RADIO CONTROL CLUB OF MICHIGAN

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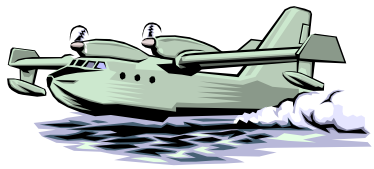
Web site: *www.skymasters.org*
Email: *newsletter@skymasters.org*

PHOTOTOGRAPHY by
Greg Cardillo and Pete Foss

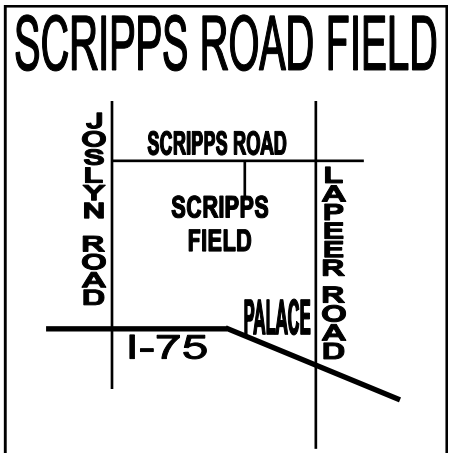


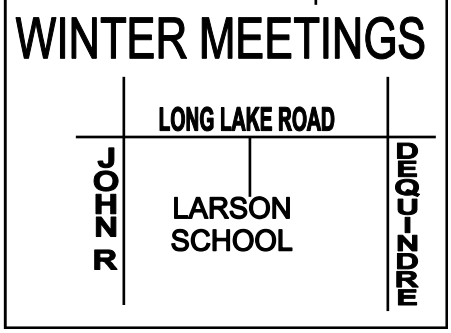
HOME OF THE "MIDWEST REGIONAL FLOAT FLY"

Skymasters Information……

Skymasters field is located within the Bald Mountain State Park on Scripps Road (see map). State Park Permits are 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 for 2005 is 94 dBa at 10 feet—this noise rule is strictly enforced.

In the summer, Wednesday evenings are Student Nights and there are usually instructors around all night is also a pot luck buffet, bring something for the grill & a dish to pass. Meet the Instructors and arrange for more instruction time together on other days. Our Chief Flight Instructor is Ron Sokacz (586) 977-1404.





From June to 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 to May—are held at Larson Middle School (on Long Lake just east of John R—see map) on the second and fourth Wednesday of the month at 7:00 PM. 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 articles to the Editor. 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!