



Academy of Model Aeronautics

Chartered Club #970
10 Year Gold Leader Club

Skywriter

George Maiorana's TU95 Bear



George Maiorana brought his next Top Gun contestant model the TU95 Bear H. Scale retracts, hand made carbon fiber counter rotating propellers and aluminum finish, WOW!



2009 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:	David 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...

Swap Shop 2009 I write this just a few hours after our annual event so I do not have any numbers yet. It sure seemed like there were more people. I do know that everyone had a good time and there were certainly a lot of deals available. We were thrown for a loop on our arrival to find the usual tables had been replaced with folding tables that now include small seats. That change resulted in about 15 fewer tables. Some of the old chairs were available and pressed into service as "tables". Some folks set up their items in the hall. Everyone made the best of it. The auction went well beyond closing time as we helped move the last few items.

Thanks to the generosity of Flight Line, Prop Shop, RC Hobbies and Larry's Performance RC we had some great items for the 2 raffles. There were a lot of gift certificates given away too. The next time you are in these establishments make sure you thank them for supporting the Skymasters.

As always there are too many people to thank but I would be remiss in not mentioning the important role our "Chefs", the Dezurs, played in our success. Neil Krohn visited the local hobby shops for prizes and, upon winning the last big prize in the first raffle, promptly donated it back to the raffle so that another lucky person could win it. Curt Craig won the 50/50 and donated his winnings back to the club. Joe Rubinstein auctioned off a kit with the proceeds going to the club. Steve Fredericks managed all the beverages.

Thanks to all for a very good evening.

Indoor Update There are 5 more weeks of indoor flying. To make sure everyone has a chance to fly at every session we will be selling \$5.00 daily passes for the month of March. For example, if you have a green card with 2 sessions left you simply pay \$15.00 for the 3 additional sessions you need.

This has certainly been a wonderful way to keep up the flying skills during this tough winter.

Dumb Thumbs! This is usually reserved to the disconnect between one's brain and one's thumbs on the transmitter sticks resulting in conditions not conducive to continued flight (commonly referred to as a crash). At the arena a couple of weeks ago my "dumb thumbs" allowed my Futaba 9C to fall out of the sliding door on my van. The transmitter hit squarely on one of the switches, cracking off the switch lever. It is never a good idea to fly with a broken switch! With the lever gone, jammed in an odd position, etc. it is possible that the switch is no longer make good contact or any contact at all. Depending on the radio this can result in an intermittent connection that can be turning a program on and off, switching from high to low rates or completely interrupting the logic train of the controls (as in no control at all).

I packed up the 9C and sent it off to Hobby Services (the repair arm of Great Planes and Hobbico). The unit was quickly returned. I am writing this to share with you what was on the repair form. The broken switch was obvious. During the troubleshooting they also found a broken capacitor (they don't put those in for fun, they have a specific function that is important), an intermittent antenna connection (can you say glitch/crash) and an intermittent rudder pot (connected to the rudder stick – now I know the reason I could never do a reasonable knife edge – my skill level doesn't have anything to do with it - it was all the transmitters fault). All caused by the fall? Maybe. But I can bet that the transmitter has taken a tumble at least once before with no visible damage. The moral? It is a good idea to send our equipment back in for a tune up. Thanks to Art Pesch and Hobby Services for preventing a future crash!



Happy 60th Birthday Mr. President!

(Continued on page 3)

E-FEST 2009 Skymasters Pete Foss, Dave and Alyssa Wendt, Ross Jones and Chris Hass again made the journey to Champaign, IL for this annual extravaganza. Over 300 pilots registered. Chris took third in the pylon race. Ross participated in the combat wearing a WW II helmet (for attention / protection?). The "Piñata" event (planes fly into the balloons lifting a basket full of gift certificates that are then dumped onto the ground so that pilots can then pick up the gift certificates) was marked by a certain young man catching the basket full of certificates before it hit the ground (an allowed condition) and then being followed (chased by an angry mob just doesn't sound good) until he gleefully shared (kicking and screaming) his winnings. That fun was only surpassed by the car trouble that Ross had on the way home. Suffice to say that of those that made it home Sunday the trip was 9 to 10 hours instead of 5 to 6. Ross didn't make it home until late Monday afternoon. His car didn't make it home until much later.

School is closed. There is no meeting on March 11

Mark Wednesday, April 1 on your Calendar! We are hosting a special Horizon Hobby Symposium. It will be at Ultimate Soccer. Dinner will be available for purchase starting at 6PM. The program will start at 7PM. Featured Horizon speakers will be Pete Bergstrom, Bill Brundle and John Redman. Mr. Phat Nguyen, Owner and President of Seagull Models will be our special guest. There should be a few additional surprises too! Please pass this on and bring a friend. This is pre Toledo so we may have a sneak preview or two.

See you at the arena, a meeting or at the field.

Joe Hass



George Maiorana and Pete Foss turn his TU95 Bear over after assembly. Nerve racking to say the least!

Meeting Minutes

Date: Wednesday February 25, 2009
Location: Larson Middle School

Attendance: 52 people in attendance, First time attendees: John Bush – New in the hobby, recently retired. Keith Heplinger – Control Line Experienced. John Beecher – PMAC member, IMAC in the future.

Announcements: There is a web site correction. The “Retiree and Want A Be’s” Breakfast will be held on March 2nd and 16th.

The next session of indoor flying will be at 11:30 to 1:30 on February 17th. There will also be a \$1.00 off coupon for the pilots at the World Cup Grill restaurant.

Due to the generosity of one of our members we are looking at installing permanent bleachers at the field. Thank you very much!

The Stewardship program at Bald Mountain holds \$18.00/hr work sessions on the second Saturday of every month. Any work donated by a club member will help us pay down our lease. We encourage Skymasters club members to spend an afternoon working for the Stewardship program. If you do volunteer please send your name and the number of hours worked to secretary@skymasters.org.

There will be an extra meeting at 7:00 on April 1st 2009. Horizon Hobbies is sending Bill Brundle and Pete Bergstrom to demo Horizon’s new products. Everybody is invited regardless of your club membership.

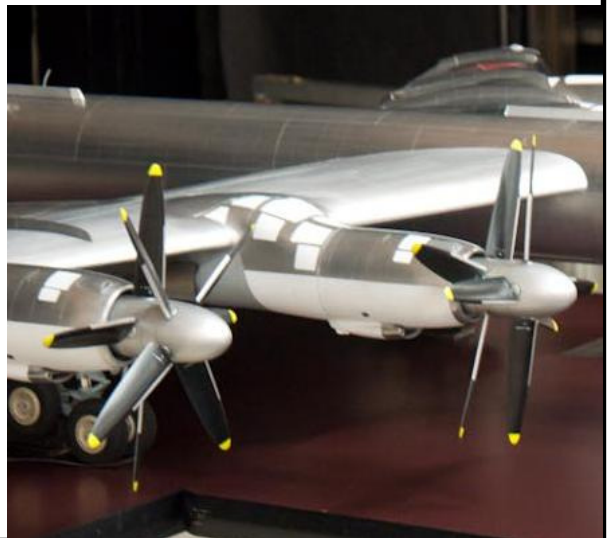
The Swap Shop is scheduled for February 25th 2009.

Guest Speaker: George Maiorana brought his next Top Gun contestant model the TU95 Bear H. George explained that there were three challenges building this plane. First, the landing gear tuck up into the plane in a difficult way. The landing gear were designed and built by George. The second challenge was the counter rotating propellers. George built these from scratch with his own gear box design. The gears have been worked on and hardened after trial use. After about 18 flights George took the gear boxes apart and noticed that some of the gear components were worn. George had these pieces reengineered. The third challenge was making the wings so they would flex in flight. The full scale plan had quite a bit of flex in the wing because they were so big. George engineered his models wings to flex in a scale like manner.

The fuselage is made of fiberglass. The fin and the fuselage was fabricated in one large plug using 6 oz. cloth. All the control surfaces are also made of fiberglass. In the aileron there is a torque tube made of tapered carbon fiber tube. The swept back wings have carbon fiber spars. The elevator hinges at an angle and was quite difficult to build. The model is covered with Flite-metal aluminum tape giving it a very realistic appearance. George did not count the number of rivets in the plane but he did say there was about 2400 rivets in the starboard aileron. George explained how he built litho plate fixtures to stamp out the rivets on the flight metal. George estimates there are about 250,000 rivets stamped onto the model.

The tires were hand made from Dave Brown wheel blanks. Each wheel has a retract system with over 40 parts. The battery packs are 4 - 5s packs delivering power to the motors. The counter rotating props run at about 5000 rpm, drawing about 700 watts per motor. Each motor puts out about 4.25 lbs of static thrust. George brought his static thrust meter and gave us a demonstration. George also demonstrated the retracts.

George estimates that the model weighs about 32 lbs. George has about 30 to 40 GB of pictures of his building sequence.



Meeting Minutes (continued)

Show and Tell:

Chris Hass – Quique Yak 54 Powered by a DA85 8 8711 Servos , TME smoke pump. Using A123 cells for electrical storage.

Terry Overton – 1/6 scale DeHavilland Hornet Moth. Designed by Terry and powered by a .58 RCV engine. Weighing 9 lbs with a 24 oz wing loading and featuring the folding wings. Solertex and 21st Century covering.

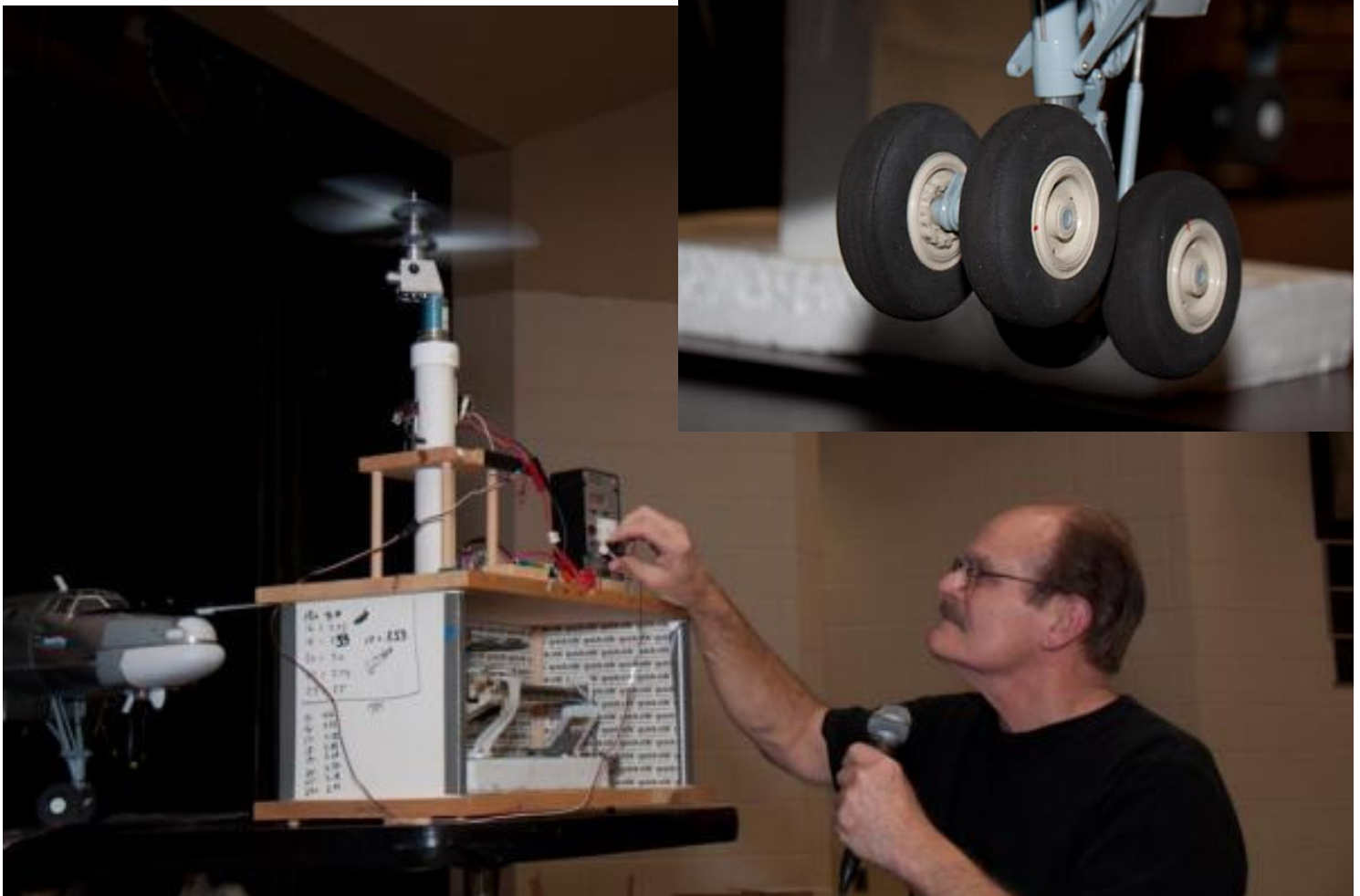
Ron Brissell – 70" A vintage Old Timer. 1937 Lanzo Bomber.

Pete Foss – Lite Flite bug. A good sized plane to fly indoor. Weighs about 6 oz.

Joe Hass – Graupner foam Eideker . Set up for a speed 200. Joe also had a vertical takeoff and land Star-chaser foamy rocket plane.

Ron Sokacz – Ultrasport 40. Futaba Fast guidance

Show and Tell winner was Ron Sokacz.





Skymasters R/C Club

We'll Teach You To Fly!

Join the Skymasters Radio Control Club for an R/C Symposium

An Evening with Horizon

Wednesday April 1, 2009 – 7PM



Now, this is fun!

Featuring a discussion with



SPEKTRUM
Leaders in Spread Spectrum Technology

Pete Bergstrom

Bill Brundle and John Redman

Horizon Hobby

Also joining us:

Phat Nguyen, Owner and President

Seagull Models

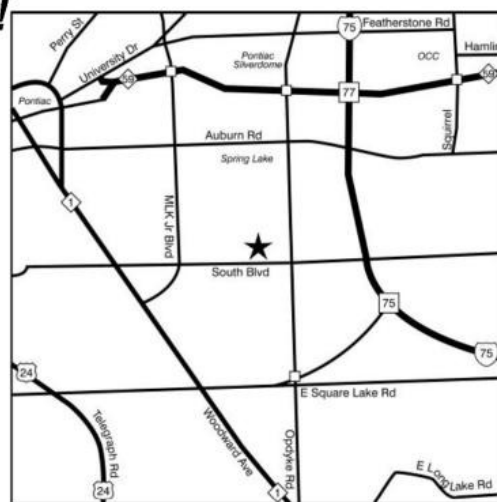


Toledo "Sneak Peek"!

**Free Admission!
All Welcome!!!**



Ultimate Soccer Arena
867 South Blvd, Pontiac, MI
Restaurant open before and after meeting for dinner/drinks!



For more information call Joe Hass 248-321-7934
Visit our website at www.skymasters.org

Date: Wednesday January 28, 2009
Location: Larson Middle School

Announcements: Indoor going very well, Float fly raffle prize– 105” Aeronca Champ from Hobby Lobby. Next meeting George Maiorana visit. April 1st – Pete Bergstrom, Bill Brundle from Horizon Hobby, Ultimate Soccer meeting room.

Ken Meyers – Cubic Wing Loading: Our guest for the evening was Ken Meyers and the subject was Cubic Wing Loading (CWL). While not a new concept, CWL has been slow to be widely accepted. That’s changed recently. In the past, most people would use wing loading in oz/sq.ft. to characterize how a plane would fly. It works but only within a limited size range. A wing loading of 30 oz/sq.ft. would be fine on a quarter scale war-bird. But try it on a 30” wingspan plane and it would be a real hand full. The stall speed would be very high! The answer is cubic wing loading. Instead of dividing weight by area, you divide the weight by area raised to the 1.5 power.

$$CWL = \frac{Weight}{Area^{1.5}}$$

with weight in ounces, and area in square feet.

If you don’t want to use a calculator, online calculators can be found here:

<http://www.flyrc.com/calculator.shtml>

<http://www.flyrc.com/Wcl-calc.xls>

<http://www.ef-uk.net/data/wcl.htm>

The best part of CWL is it works very well to characterize the relative ease of flying and skill level required to fly various aircraft. It provides a means to group aircraft into “flyability” levels. CWL does not take into consideration the actual airfoil or aerodynamics required to get the plane to fly at a given size or scale in "real" air.

Type	Level	CWL	Wind Notes
Living room	0	0 - ???	none
Indoor	1	0 - 2.99	up to 3 mph
Backyard	2	3 - 4.99	up to 5 mph
Park Flyers	3	5 - 6.99	up to 7 mph
Sport	4	7 - 9.99	up to 10 mph
Adv. Sport	5	10 - 12.99	up to 13 mph
Expert Sport	6	13 - 16.99	up to 17 mph
Expert	7	17+	(yeah, right)

Experience has shown that you can rate an airplane’s flyability based on CWL. Try it out on your airplanes and see if you agree with Ken’s categories. For more information on CWL take a look at Ken’s website:
<http://homepage.mac.com/kmyersefo/M1-outrunners/M1-outrunners.htm#CWL>



Pulse Series Comparison

Mini Pulse XT: WA=330 Wt=26 oz.

CWL=7.49 WL=11.35 oz./sq.ft.



Pulse XT 40: WA=667 Wt=94 oz.

CWL=9.42 WL=**20.29** oz./sq.ft.



Pulse XT 60: WA=885 Wt=120 oz.

CWL=7.87 WL=19.53 oz./sq.ft.



Winter Weather Reminder

Our meetings are dependent on the status of the Troy School District. If Troy Schools are closed - or cancel after school activities, our events are cancelled as well. Please check local radio and TV stations for status. We will update the site as soon as possible in the event of a cancellation.

Winter Indoor Flying! - Tuesdays Thru the Winter**Ultimate Soccer Arena, 867 South Blvd, Pontiac, MI - 11:00 AM**

Located just west of Opdyke, on the north side of South Blvd - a 365 ft by 260 ft facility with ceilings from 45 to 75 ft available for indoor flying from 11am to 1 pm!! Ample room for concurrent flying of 3D, Heli, and Sport. Purchase 5 sessions for just \$25 - Single sessions \$15 (available at event). Temperature controlled, well lit. Restaurant on site.

Retiree and Want'A Be's Breakfast - Monday, March 2, 2009**Spargo's Coney & Grill****Auburn Crossing Plaza, 2767 University Dr., Auburn Hills - 9:00 AM**

First and third Monday of each month throughout the winter - Join us for breakfast and R/C talk. (Exit 79 from I-75; go east on University to first strip mall on the north side)

NO Meeting* - Wednesday, March 11, 2009*School Closed - Spring Break - 7:00 PM****Retiree and Want'A Be's Breakfast - Monday, March 16, 2009****Spargo's Coney & Grill****Auburn Crossing Plaza, 2767 University Dr., Auburn Hills - 9:00 AM**

First and third Monday of each month throughout the winter - Join us for breakfast and R/C talk. (Exit 79 from I-75; go east on University to first strip mall on the north side)

Skymasters Meeting - Wednesday, March 25, 2009**Larson Middle School. 2222 E. Long Lake Road, Troy - 7:00 PM**

"In the bones" Now an annual meeting event - a chance for members and guests to bring in their not yet completed models to share what they have been up to this winter! Always some unique projects being worked on by our members. (Completed models of course welcome for Show and Tell!)

Skymasters Meeting - Wednesday, April 1, 2009**Ultimate Soccer Arena, 867 South Blvd, Pontiac - 7:00 PM**

Pete Bergstrom and Bill Brundle of Horizon Hobby will join us on their way to the Toledo Expo! Check back for more details!

Note date and location change!**Retiree and Want'A Be's Breakfast - Monday, April 6, 2009****Spargo's Coney & Grill****Auburn Crossing Plaza, 2767 University Dr., Auburn Hills - 9:00 AM**

First and third Monday of each month throughout the winter - Join us for breakfast and R/C talk. (Exit 79 from I-75; go east on University to first strip mall on the north side)

Retiree and Want'A Be's Breakfast - Monday, April 20, 2009**Spargo's Coney & Grill****Auburn Crossing Plaza, 2767 University Dr., Auburn Hills - 9:00 AM**

First and third Monday of each month throughout the winter - Join us for breakfast and R/C talk. (Exit 79 from I-75; go east on University to first strip mall on the north side)

Skymasters Meeting - Wednesday, April 22, 2009**Larson Middle School. 2222 E. Long Lake Road, Troy - 7:00 PM**

Keith Shaw joins us to talk about Nicads and NiMh batteries. With all the recent attention on LIPOs, we still use and rely on Nicad and NiMh cells for many of our radios. Proper care of these cells could save your airplane!

Skymasters R/C Club 2009 Application For Membership



Information (print clearly)

Last Name: _____

AMA #: _____

Address: _____

City: _____

State: _____ ZIP: _____

E-mail: _____

Birth Date: _____

Significant Other: _____

New Member () Renewal ()

First Name: _____

Pilot: () Student: ()

Home Phone: _____

Work Phone: _____

Cell Phone: _____

Newsletter: Will be sent by email. If you need a paper copy, please check here: Standard Mail ()

Other Family Members Who Fly

Name: _____ AMA #: _____ Pilot () Student ()

Name: _____ AMA #: _____ Pilot () Student ()

Field Rules

- 1) Field hours are 10 AM - 8 PM (NO EXCEPTIONS)
- 2) Noise limit is 94 dB at 10 feet.
- 3) All legal frequencies on 27mHz, 50/53mHz (with Ham license), 72mHz, 900mHz, 2.4GHz permitted.
- 4) All 50mHz and 72mHz transmitters and receivers must be narrow band.
- 5) All Radios in impound when not in use - Membership card must be placed in slot on frequency board when pin is removed.
- 6) You must not fly behind the flight line.
- 7) AMA Safety Code must be followed.
- 8) All vehicles at field are required to have current year State Park Permit.

I have read the above rules and agree to abide by them and all other Skymasters and AMA rules and regulations.

Member's Signature: _____ **Date:** _____

Club Officer Use:

Date: _____ Dues Paid: CK () CA () AMA Verified _____ *Voted In _____

To renew by mail, send the following:

- 1) *Renewing members: Check for \$70 (\$100 after February 28, 2009)
- 2) *New members: Check for \$100 (\$70 Dues + \$30 Initiation Fee)
- 3) Photocopy of 2009 AMA Card
- 4) Self addressed stamped envelope
- 5) Completed & Signed Application

Mail To: Gary Weaks
2512 Red Fox Trail
Troy, MI 48098

Make checks payable to Skymasters

*We are asking **ALL MEMBERS** to fill out an application to help verify our records. Thank You.*



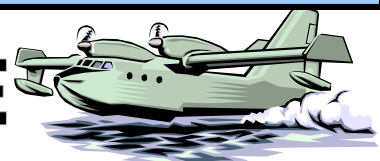
SKYMASTERS RADIO CONTROL CLUB OF MICHIGAN

Pete Foss
562 Tanview Dr.
Oxford, MI. 48371

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



PHOTOGRAPHY by
Greg Cardillo



HOME OF THE "MIDWEST REGIONAL FLOAT FLY"

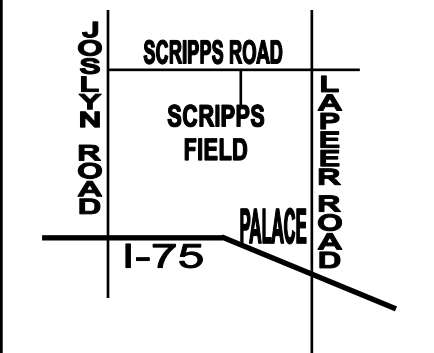
Skymasters Information.....

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 is 94 dBa at 10 feet—this noise rule is strictly enforced.

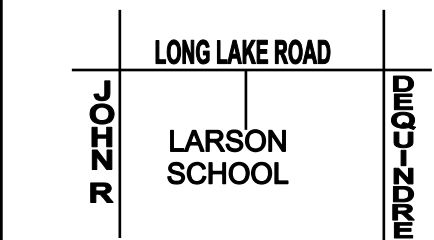
In the summer, Wednesday evenings are Student Nights and there are usually instruc-

tors around all night is also a

SCRIPPS ROAD FIELD



WINTER MEETINGS



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!