



Academy of Model Aeronautics

Chartered Club #970
5 Year Gold Leader Club

Skywriter

PRESIDENT'S MESSAGE...

BY: ROSS JONES

Well, if you didn't know by now, you do now! My wife wears the pants in the family. Yep, I admit it. We're moving to Lansing, MI, before the beginning of the school year. A CARDS member I will be. Jamie's family hails from Lansing and there is a much better support network there for her and our young ones. Due to my travel schedules balancing the jobs I have I can't be there as much to "protect" her from our three demanding children. Those of you who know kids know exactly what I mean!

At any rate, I have every intention of finishing my term and coordinating all the events that I am responsible for. But now you know that I definitely can't run again in '05! And yes, the Christmas party is still on. We've been making plans already for that one.

A Land Swap Update: There are some rumblings among those involved with the land

swap about a compromise between the two parties. I am writing this on the 19th of June and there is no indication of agreement in any way, but here is what I am seeing: Rather than the original parcel West of M-24



Marv Middleton and Bill Stark give a flying demo to two interested spectators

in exchange for the land on Indian Lake, there might be an exchange with a parcel of only 8 acres West of M-24. Seems more equitable on the surface to me. That 8 acres would more than likely be commercially de-

veloped. Better a K-Mart than a house – at least that seems to be the thinking. I invite you to write to me to discuss your thoughts about this. In short, I am in favor of this smaller parcel in exchange for the parkland in Oakland Township. Again, this may completely be off the table by the time you read this! So much for a "scoop."

Team Fun Fly: Dave Wendt has some things in store for us this year. Even if you don't participate, this is one heck of an event to watch. July 11th is the date!

The Midwest Regional Float Fly: Man, have we got prizes for this one. There are lots and lots of super prizes. To paraphrase a Chicago Democrat discussing peculiar voting strategies "buy (tickets) early and often..." Paul Zabawa will take care of food for the event; Mark Smith is registration, Dan Devine is beachmaster and I'm still chasing a

(Continued on page 2)

2004 Club Officers & Appointees...

	President:	Ross Jones	6028 Meadowgreen	Waterford	48327	248-738-4435	
	Vice Pres:	Paul Zabawa	PO Box 138	Metamora	48455	810-678-3332	
	Secretary:	Joe Hass	1142 Brunswick Dr.	Rochester	48309	248-321-7934	
	Treasurer:	Joe Rubinstein	155 Cayuan	Lake Orion	48362	248-693-4265	
	Editor:	Mike Holmes	2557 Hemlock Ct.	Oxford	48370	248-969-9189	
	C F I :	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	

(Continued from page 1)

flight line coordinator. We have a full scale Pig Roast lined up for dinner with, obviously, a pig, baked beans, cole slaw and potato salad. Volunteers; you better sign up now!

See you all at the field!

Ross



Greg Cardillo and his daughter with Greg's new fathers day plane.

PHOTO CON-



TEST

Announcing the 1st annual Sky-masters Photo Contest. Email your best airplane and members pictures. A highly qualified board (Carolynn, Sam and I) will pick the best photos. Gift certificates for the top three, plus star billing on the Member Pics section of the website. See the Member Pics section for the type of pictures I mean. Nice clean backgrounds, etc. Posed pictures, not pictures of planes with stuff everywhere.

Email your photos to:

Pictures From the field



John Hakala and his new "SEA STAR" which he built from pictures he found on the internet



Robert Dukelow and his new "Balsa USA" Phaeton II biplane powered by a OS 120 four stroke



Marv Middleton and his new "Something Extra" powered by a OS 70 4-stroke



Otto Gutsell and his new ME109 ARF powered by a OS FP 40 2-stroke

MIDWEST REGIONAL FLOAT FLY 14th ANNUAL

SEPTEMBER 11-12

EVENT DIRECTOR NEEDED!

CONTACT: ROSS JONES NOW!

PROP WASH...



Joe Finkelstine

Hi all,

Well, now it is time for the next installment and as always a recap is in order. When I last left you, we had brought our vectorized drawing into our CAD program, scaled the 3 view to our desired scale, and were beginning to decide on what to tackle next in our big project.

At this point, we have essentially a blank design layer and are probably wondering what to do next. When I feel a bit bewildered like this, I usually step back and try to look at the big picture. In the example I am using, my Me410, the wingspan is 92", and the fuse is a little smaller. One of the next big decisions for me to make at this point was overall wing design. Should I design a 1, 2, or 3 piece wing? Should I design a fuse with removable tail feathers? We need to answer these early in the design, as they obviously affect the design in major ways. Here were the decisions I made at this point for the Me410

Wing – 1 piece, although 92" is the very limit of what will fit in my Jeep (I actually measured for this!) – balsa sheeted, Retracts (Robart 151's), 2 -.70 class 4 strokes, Top secret self-destruct mechanism built in wing if 2 stroke mounted

Fuse – traditional one piece, built up with formers and balsa sheeted.

There are other decisions to

make, but this is enough for now. At this point I broke up the design into the following tasks, although you need not follow this order

1 – Total outline view of fuse top and side views

2 – Total outline view of wing from planform view

3 – Outline of flying surfaces from planform view (elevator, rudder, aileron, flaps, etc.)

First off, the reason I choose these 3 is that they are all essentially drawing on top of the 3 view on our design layer. When I start the drawing for steps 1-3 above, I can make up for the disjointed lines, and keep the number of little line segments (i.e. "nodes" or vertex) to a minimum (keeping in mind I am aiming for laser cutting, where each "node causes an increase in cutting time). After accomplishing tasks 1-3, the primary need to refer to the 3 view will be over. We will keep referring back to the 3 view, but it will be for reference now, as the outlines on our design layer are what we use as the defining boundaries. Another key factor to draw these outlines early is that we can now have a design reference for other parts of the ship. Let me explain with an example. In the Me410, I did not have very many cross-sectional views available, so I had to build several of them up from the bounding box I created of the former using the fuse top and side views. I will go into de-

tail later as to how I did that, but the point here is that I needed the outline views to create other data.

Let's keep in mind that the first 3 steps above do not give us construction detail, but rather the outline of the overall wing and fuse. Once we have them done, we begin to focus our efforts on building up the structure we have just defined using techniques and materials we normally can work with as RC'ers.

So, let's take a look at what I created for the fuse in figure 1 below

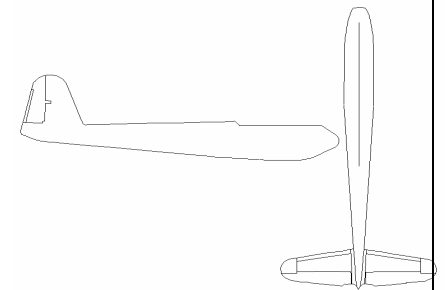


Figure 1 - Me410 Fuse outlines

Now, I also created a similar outline of the wing, and all of the flying surfaces, but they are not shown here. Let's examine first how I made these. Remember, they are not on the original 3 view trace layer, but are on the first design layer (layer 0 in my CAD model).

To start this process, I set up the 3-view trace layer to be visible, and I turned the 3 view trace layer edit capability to "off" – In other words, I wanted to be able to see the data on the trace layer, but not alter it in any manner. Essentially, we are going to trace over the data on the 3-view trace layer and make it more useful in the process. In order to accomplish this, it is necessary to finally introduce

(Continued on page 4)

(Continued from page 3)

snaps

When you start attempting to draw in CAD, you will quickly learn to use snaps often, as they are amongst the most useful features of CAD (at least for the 2-D stuff we do). If you have experience in drafting on paper, Think back on how much work it was to make a radius corner from two edges. You had to draw the two edges as lines (in a very light Number 6 lead!) find the intersection point, measure from the intersection point to get where the arc would intersect the lines, measure to the center of the arc, then draw the arc lightly with a number 6. Finally, you drew the lines and arc in a solid black as one continuous piece for the final drawing! – Snaps will eliminate much of this type of work (actually, making this type radius edge is such a common thing in CAD that they all have a feature to do this automatically).

The term snap refers to what you want the next point of a draw command to “snap” to. Suppose you want to draw a line where one end is to start at the end of another line, and the end of the line to be drawn ends at a corner. Well, with snaps, I simply choose the line draw command, and then I activate a snap for the starting point of “end segment”. I put my drawing cursor somewhere near (just close is all I need) and click the mouse. The “snap” command makes my click point snap to what I set the snap filter to, guaranteeing the end point of the existing line. For the other end of the line, I change my snap to vertex (a vertex would be the end point intersection of two lines amongst other things) and just click near

the corner I am drawing to. No construction lines, etc., are needed. The snaps also guarantee I have the point exactly correct. CAD programs have a large array of snaps, and the one I use is no different. There are over 15 different types of snaps in TurboCad. Another example is drawing a line with end points at the center of circles. I simply set my snap filter to circle/arc center and the line is trivial to make, and I am certain the line end points are exactly where I want them.

So which snaps did I use to create figure 1 above? I used the following 2 snaps extensively

- Snap to nearest graphic
- Snap to vertex

The snap to nearest graphic needs some explanation. The best way to trace over the 3 view outline is to snap on the 3 view using a continuous line in most cases. (Continuous line means that it keeps adding segments where the next segment starts at the last segment end). I want my continuous line to follow the 3 view, so that each time I click the mouse, I want it to snap right on top of the 3 view data. The snap to nearest object insures that I always snap on data on the 3 view trace layer, rather than in open space near it.

The other aspect that we need to discuss is one of required accuracy. While snaps allow us to insure that we can put our points on the 3-view, it is not enough without some judgment on your end. You need to decide how often you need to put a point down on your trace to insure as much accuracy as you need without over-doing it. Let’s take a somewhat exagger-

ated example to illustrate this. Figure 2 shows a close up of a deliberate under-tracing, where I made my line segments too long between points and the arc is not faithfully reproduced.

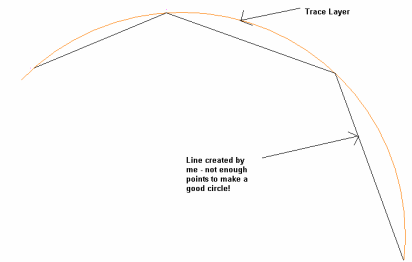


Figure 2 - Missing the point!

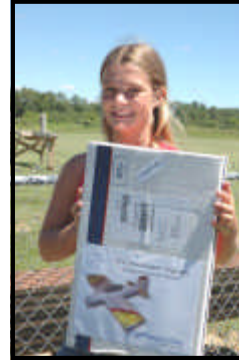
Now, to the perfectionists, I have certainly committed a big no-no here, but I would say maybe not. We also need to consider how big the above deviation is in the 1:1 world of our drawing. Let’s say in the 1:1 drawing, the circle in figure 2 is only .1 inches in diameter. In this case, the maximum deviation of my line from the true circle may not even be measurable, or be so small as to be negligible. If it is indeed this small, you or I would never be able to tell that I “cheated” here on the trace, or even if you could just barely tell, a few scrapes of sandpaper would erase the deviation. The point here is that the CAD tools will help me trace the outline to the fidelity you choose. You still need to apply your judgment and experience here.

I’ve run out of space, but after this month, we should have our outlines done, and next month, I am going to tackle the fuse former creation.

SMALLFRY, ELECTRIC AND SAILPLANE FLY

The smallfry, electric and sailplane fly was almost a blow-out this year. A few of us flew but not many, 15-25mph winds when its gusty. I've attached pics of the big prize winners! Thanks to CASTLE CREATIONS, FUN-PLANES.COM and AIRCRAFT WORLD for supporting the event!!!! Pete Foss

Ed note: Thanks to Greg Cardillo for the pictures. He took them with his new Nikon digital camera, a fathers day present to himself. Its just amazing the quality pictures you can get from a \$99 digital camera!!!!!!



General Meeting Minutes, June 5th, 2004.

Meeting called to order: 7:40pm. Wednesday, Student night details regarding potluck dinners commences. Charles and Dairdre McGlothlin have agreed to take over coordination duties from Bob & Donna Burns.

The proposed amendment with some changes was passed unanimously. Summer meetings (there are two left) will now take place on the 2nd Wednesday of the month @ 8:00pm after flying. July 14th and August 11th, 2004 will be the new times and dates of the summer meetings.

Ross Jones discussed upcoming events – to include Small Fly and Electric on 19 June and the Team Fun Fly on July 11th.

Ross Jones showed off some new VHS videos donated by Jack Goodrich to Skymasters RC Library. The complete series of "Hunters in the Sky," hosted by Cliff Robertson. Dan Devine and Mark Smith announced that they would host an Aerobatic session on Thursday afternoons each week from 3pm to 6pm.

Meeting adjourned at 8:00pm.



- ✈️ ✈️ NO LT-40'S ONE ON FLOATS AND ONE WITH WHEELS HARRY ETHERIDGE 586-268-8926 \$40 DOLLARS EACH
- ✈️ Metro Flight 112D Nicad/NIMH Chargers 1 to 36 Cells up to 5 Amps \$75.00 each. Panasonic Individual 3000 Mah Cells. Make packs to your specific needs. Good for planes/cars/boats \$1.50 per cell. Joe Hass 248-321-7934, e-mail joehass@cmconnect.net

STONY CREEK FLOAT FLYING



The Skymasters and the Fraser Flying Clubs have joined forces again this year to promote float flying at Stony Creek Metro Park. Every Wednesday weather permitting there will be flying at "Winter Cove" from 9:00 - 12:00. After entering the park stay to the left, watch for signs, it is on the right after the golf course.






Stony Creek is west of Van Dyke (M-53) on 26 mile road. There is a \$4.00 daily park fee or annual park pass is available.

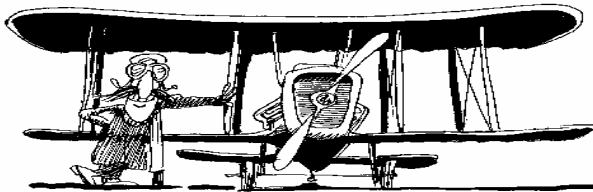
"Get your floats on and join us at Winter Cove every Wednesday"

For information contact: Jim Held 248-641-9724
jimwheld6651@wideopenwest.com

AREA EVENTS...

AMRCC CONTEST SCHEDULE

-  JULY 1,8,15,22,29...AEROBATICS SESSION SKYMASTERS. 3 to 6 PMDAN DEVINE 248-627-6894
-  JULY 7,14,21,28.STUDENT NIGHT & COOK OUT...CHARLES & DAIRDRE McGLOTHLIN 248-370-4038
-  JULY 10, 11. ...MIDAMERICA ELECTRIC FLYERS-MIDWEST R/C FIELD..KEITH MEYERS 248-669-8124
-  JULY 11.....TEAM FLY SKYMASTER.....DAVE WENDT 248-969-8738
-  JULY 12, 26.....SENIOR CENTER..... HAROLD REUTER 248-391-2669
-  JULY 17ELECTRIC FUN FLY CHESANING FLYING CLUB....ROBERT MUNSELL 989-624-5956
-  JULY 18.....GREAT LAKES SCALE CONTEST RCCD.....JAY LAWLESS 248-641-7768
-  JULY 23,24,25.....MICHIGAN JETS-GROSSE ISLE.....ARTHUR GAWJEWSKI 734-454-0648

**LAKE ORION SENIOR CENTER**

HELP OTHERS BUILD PLANES
THEN FLY THEM IN THE SPRING!

1:00 - 5:00 THE 2ND AND 4TH MONDAY OF EACH MONTH
CONTACT HAROLD REUTER AT 248-391-2669

"SKYMASTERS" ~ JULY ~ 2004

SUN	MON	TUE	WED	THU	FRI	SAT
				1 Aerobatic session	2	3
4	5	6	7 STUDENT NIGHT	8 Aerobatic session	9	10 MIDAM Elec fly
11 Team Fun fly	12 SENIOR CENTER	13	14 Field meeting Student night	15 Aerobatic session	16	17 Elec fun fly
18 Scale Contest	19	20	21 STUDENT NIGHT	22 Aerobatic session	23 Michigan Jets	24 Michigan Jets
25 Michigan Jets	26 SENIOR CENTER	27	28 STUDENT NIGHT	29 Aerobatic session	30	31 PRECISION AEROBATICS

SUPER PRIZE RAFFLE!

2

SUPER STEARMAN

1



GREAT PLANES
MODEL MANUFACTURING COMPANY



O.S. 120 III

0

FOKKER DR. 1 ~ 60" WINGSPAN

GREAT PLANES
MODEL MANUFACTURING COMPANY



2



O.S.
61-FX



FUTABA 7CAF RADIO



3

Futaba

0

4

TICKETS

1 TICKET.....	\$1
6 TICKETS.....	\$5
13 TICKETS.....	\$10
30 TICKETS.....	\$20

MIDWEST
REGIONAL
FLOAT FLY

14th ANNUAL



SEPTEMBER 11-12

www.skymasters.org



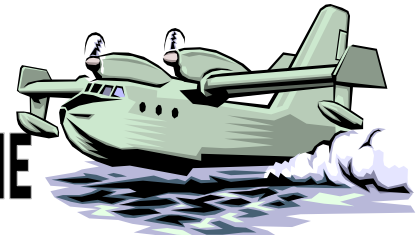
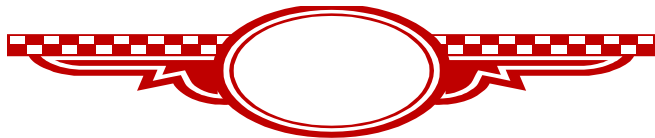
SKYMASTERS RADIO CONTROL CLUB OF MICHIGAN

Mike Holmes
2557 Hemlock Ct.
Oxford, Mi. 48370

Web site: www.skymasters.org
Email: mholmes969@sbcglobal.net

INSIDE This Issue

PRESIDENTS MESSAGE.....	1&2
MEETING MINUTES.....	4&5
PROP WASH.....	3&4
EVENT CALENDAR.....	6



HOME OF THE "MIDWEST REGIONAL FLOAT FLY"

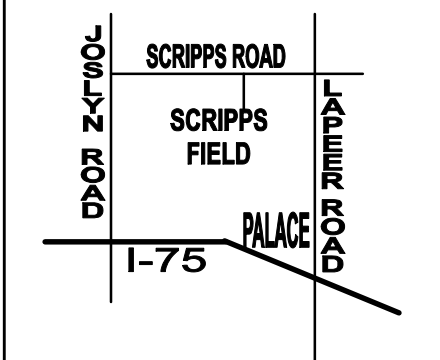
Skymasters Information.....

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 2004 is 94 dBA at 10 feet—this noise rule is strictly enforced.

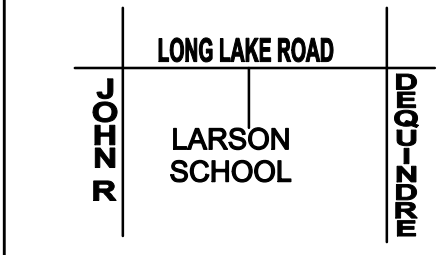
In the summer, Wednesday evenings are Student Nights and there are usually instruc-

tors around all night is also a

SCRIPPS ROAD FIELD



WINTER MEETINGS



Student 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 (810) 977-1404.

From June to August, Club meetings are held at the field, on the second Wednesday of

the month at 8:00 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 7:30 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!