

# Looking Up

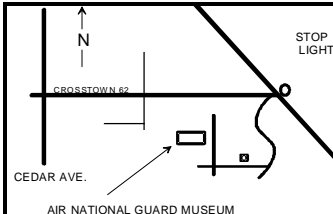
March 1999

Issue 24

## Wanted: Sailplane Pilots!!

All **MRCSS** members must also be a member of the **AMA** Academy of Model Aeronautics. See any hobby shop or contact an officer for an application.

To join **MRCSS**, Send \$20 to  
**MRCSS**  
5354 Newton Ave. S.  
Minneapolis, MN 55419



## MRCSS Newsletter

<http://www.rcsoaring.com/mnclubs.htm>

### MRCSS Club Officers:

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### INSTRUCTORS - HELP FOR BEGINNERS

Corky Wald 459-2005 Cottage Grove  
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Bill Sampson 425-3422 Osseo  
wjsamp@juno.com  
Mike Trutwin 953-3612 Lakeville  
mtrutwin@profdesign.com

### Schedule of MRCSS Events:

Mar.	18th	meeting 7:00 – 10:00 pm Air National Guard Museum
Apr.	15th	meeting 6:30 – 10:00 pm Air National Guard Museum
May	20th	meeting 7:00 – 10:00 pm Air National Guard Museum
June	17th	meeting 7:00 – 10:00 pm Air National Guard Museum
July	15th	meeting 7:00 – 10:00 pm Air National Guard Museum
Aug	19th	meeting 7:00 – 10:00 pm Air National Guard Museum

JIRIK SOD FARM	ROBINSON LANDSCAPING	PRESCOTT SLOPE	SUPERSLOPE
4 miles East of <b>FARMINGTON</b> on Co Rd 66. Park on Co Rd 66 or on Blaine ave (N/S road). Winch and high starts available on site. Contact an officer for locker combination.	2 miles East of Lexington Ave on Main Street (CR 14, 125 <sup>th</sup> street) in <b>Lino Lakes</b> . This is the Sod Farm on the South side of the road. <b>DO NOT FLY ON THE SOD FARM ON THE NORTH SIDE OF THE ROAD.</b>	8 miles east of Prescott Wisconsin on Hwy. 10 Take Minnesota Hwy. 61 to Hwy. 10 just north of Hastings. East on Hwy. 10 into Wisconsin, through Prescott. Continue east on Hwy. 10 8 miles to "The Virginian" restaurant on north side of road. Park in north-west corner of lot, hop the electric fence and climb the hill. beware the fence. It's hot! N.N.W. to N.E. winds.	4 miles SE of <b>Northfield</b> . Take MN 246 to Ibson ave. South on <b>IBSON</b> then East on 135 <sup>th</sup> to Isaacson Trail. Isaacson Trail follows top of the Ridge. SSE to WSW winds at 5-25 MPH needed.

## FIELD RULES for SOD FARMS

### **Nos**

- No walking on newly seeded or new growth area
- No driving or parking on the property unless owner permission given on the day you visit (even on "on site" roads).
- No Smoking or Alcoholic beverages
- No Littering
- No music or yelling
- No walking on wet areas
- No recreational vehicles
- No flying of GAS models
- No flying near owner buildings
- No assisting none-insured flyers
- No parking in front of access points

### **YESs**

- Use bright colored streamers on all stakes
- Use frequency board when 5 or more members are flying
- Take all trash home with you
- Pick up any debris found, even if it is not yours
- Park only on the road, and appropriately
- Yield to all farm work and all farm workers, be friendly!
- Use off-site rest rooms
- Report all questionable none-MRCSS activities
- Report rule violations to a Leader Member
- **YOU ARE A GUEST .... SO ALWAYS ACT LIKE ONE**

# l o o k i n g u p

## Meeting Minutes - February 18, 1999

The meeting was called to order by President Kirk Hall.

VISITORS AND NEW MEMBERS - Kevin Finke was our visitor tonight. Kevin is a full-scale sailplane pilot.

Steven Hess joined our club just before the meeting started. He wants to know about ARF and EPP sailplanes, and learned about us from the Web site and from Hub Hobby in Roseville.

John Hearing is our next-newest member, having joined the week before the meeting. He and friend Tom Olson have tried to fly their Global Explorer 2 meter ARF sailplanes. Friend Jim Grove has flown those planes OK, so after Tom returns from Clearwater, Florida he will join also and the two of them hope to learn under the guidance of MRCSS members. John also has a Highlander EPP kit.

PROSPECTIVE MEMBERS - Jim Ladwig reported on the following contacts made recently :

Leon Lundquist is interested in a model Bowlus or Schweizer and wants to start when the weather warms up. Leon is 72 years old, and says he has lost interest in glow engine RC.

Bill Jacobsen of Menominee, Wisconsin just started again after building rubber models. The magazine Sailplane and Electric Modeler got him enthused before Thanksgiving.

Ken Wilcox got Tom Rent's number from a sticker on a kit box. He has been sent applications for MRCSS and AMA.

PROPOSED EXPENDITURES - Members present agreed we should insure all four of the 1998 sites, plus the two slopes at Stanton. This brings the 1999 insurance bill to \$120.

Renewal of the Model Aviation subscription for Washburn High School was approved.

A donation to support the F3A Team was not approved.

DISTRIBUTION OF ROSTERS AND CARDS - Since not all members attend all meetings, and since many members take the newsletter via the Internet, there needs to be a way to see that all members get rosters and membership cards. There are some privacy concerns about putting the roster on the Internet, so that will not be done. Andy Karl suggested that he annually send a printed copy of the newsletter (April ?) which will include the club roster and any undistributed membership cards. All agreed this was a good solution.

ALL 1999 MEETINGS TO BE IN THE MAGM  
We will be meeting the third Thursday of every month in the

Minnesota Air Guard Museum. In April we may have the opportunity to visit an AGM project - building a replica of a World War I Curtiss JN-4 "Jenny", according to Bill Igoe.

### SEPTEMBER SLOPE SOAR ON SUPERIOR

Brian Brinkman plans to hold an event at a north-facing slope site near Duluth the first week of September (4<sup>th</sup> or 11<sup>th</sup>?? Labor Day is September 6).

### VOLUNTEERS NEEDED TO GET PRIZES

Dave Engleson is looking for members who will ask hobby shops and dealers to donate prizes for the raffle portion of the Builder's Challenge. Call Dave at (651) 695-0708 to offer your help.

## Hand Launch Gliders, Some Slope Soarers Shown

Geoff Cooke is making up fuselages for the Fun 1, a 60 inch one-design class slope racing sailplane. He will have a price available by the next meeting, and is planning on a pylon racing series this coming season.

Someone (Kirk Hall?) mentioned that Hobby Mart had Sailaire kits for \$73 and other good glider kits. They are located on Hamline Ave in St. Paul, north of Highway 36.

Mark Miller showed his scratch-built RCHLG loosely based on the Sunbird, which was the first published HLG design. Published by Model Builder in 1980, the Sunbird was designed by Dave Thornburg of Bird of Time fame. The basic planform has the flavor of the Sunbird but there have been many design and structural changes to the original design. Wing originally was a 54" polyhedral but Mark stretched it to 60 in. with a flat center section with polyhedral tips. Airfoil is a SD7037. Fuselage is basic box type with .75 oz. fiberglass cloth tacked with 3M 77 and water soluble Polyurethane as composite material. Fuselage is also strengthened with fiberglass covering inside corners. Radio gear will be 110 mAh battery with 2 HS-60 servos and a Hi-Tech 555 receiver. Weight is unknown at this time.

Mike Martindale showed his plans-built, modified Little Bird (of Time). Flying weight is expected to be 9 ounces with a 110 mAh Rx pack. Mike replaced plywood parts with 1.4 oz. glass fiber impregnated with thinned carpenter's glue, used high density foam for bulkheads, and used carbon wet with thinned glue for the trailing edges. The fillet beneath the wing is foam with a skin of carpenter's glue. The tail is balsa sheet, finished with 2 coats of oil-based polyurethane wiped on. The open bays in the wing are covered with Ultracote Lite film.

Luke Palen brought his first scratch-built plane, a Zepher

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HLG enlarged to 60 in. span. The Zepher was published in Model Aviation in 1981 as designed by Bob Owens. Luke estimates weight is 14 ounces and reports that it flies wonderfully.

Kirk Hall brought a Freedom, an ARF sloper with a fully sheeted wing. Kirk reduced the dihedral to ¼ inch, from the ¾ inch called for. It is understood that Tom Rent has a fiberglass fuselage for the Freedom.

Walt Huemmer displayed his Baby Illusion - scaled 50% from the HL kit. This is Walt's "traveling model", and flying weight is 6 ounces.

Brendan Miller showed his Skipper FFHLG, built from a Graupner kit.

## **MAD Highlander EPP Construction Tips**

By Conrad Sowder

The Highlander EPP from MAD Aircraft Design is a two meter foamie trainer / thermal sailplane. It is reputed to have the best thermal performance of all the two-meter class EPP planes. This plane has a full 78" (two meter) wingspan, rather than the 71" - 72" of several other kits available in this class. This six inches is significant in terms of thermal performance. Being constructed of EPP, it is also fairly rugged. This allows flying in small and/or rough fields that would probably destroy a conventional balsa sailplane. This also allows its use as a demonstrator and trainer for newcomers to R/C soaring.

Following are a number of Highlander construction tips that have been extracted from threads collated by J.P. Morere on his web site, <http://members.home.net/aeronut/index.htm>. The threads originated on the R/C Soaring Exchange which may be browsed at <http://www.egroups.com/list/soaring/info.html> or subscribed to following the instructions found at <http://www.ocpapsych.com/yellow.htm#top>.

### 1) Dihedral angle

The center joiner supplied with the kit is meant for use in a polyhedral. The angle is about 10 degrees. For a full-house sailplane with simple dihedral, 5 degrees is recommended.

### 2) Control surfaces

For a full-house sailplane, use flaps 60% and ailerons 40% of each wing, not 50-50. Consider using 2" trailing edge stock instead of 1 1/2". The wider control surfaces would require less deflection, result in less control drag, and provide quicker maneuvering and recovery when necessary.

### 3) Spar and outer wing panels.

For a simple dihedral wing, do not cut the spar and run it in one piece from the center to the wing tip as instructed. Because the airfoil thickness at the tip is less than that for the center

section, this will result in the bottom surface at the tip rising up slightly from the level of the center section. This causes a slight upward bend in the trailing edge where the ailerons go. To avoid this bend, cut the spar at the joint between the center section and the tip. Install the spar sections at full depth into the slots in the center and tip sections. Glue in the two sections of the spar with the bottom of the wing flat. The kit provides some straight pieces to span the joint at the polyhedral break. Use these same pieces in the precut slots to strength the spar joint where you cut the spar. The result is a nice straight trailing edge.

### 4) Tail boom

Problems with the plane tucking under at high speed, resulting in an unrecoverable dive, have been reported. The solution is to add a length of carbon fiber arrowshaft (or similar stiffening material) on the bottom of the fuselage down the length of the tail boom. Put the radio antenna in the carbon fiber tube for easier removal.

### 5) Tail feathers

To save weight and maintain straight surfaces, build balsa tail feathers instead of using the supplied cloroplast. See Figure 1 for installing a removable horizontal stab for ease of transportation.

Disregard the instructions regarding the sequence for installing the tail. Glue in the tail feathers and test fit the control rod/servo connection BEFORE you tape.

### 6) Servos

Use good servos. They are hard to dig out if something goes amiss.

For aileron servo connections hollow out a small cavity in the fuse under the leading edge of the wing. Route the aileron servo leads DOWN through the bottom of the wing just behind the leading edge. Put the excess lead wire in the cavity. Place as much room fore and aft between the nose servos as possible. Every bit of foam cushion helps keep the nose from breaking off on hard landings.

### 7) Pushrods

To improve control accuracy and discourage flutter at high speed, avoid putting a large bend in the rudder pushrod to get it above the horizontal stab. As an alternate, run the elevator pushrod horizontally from the upper servo location straight back to the elevator control horn, and run the rudder pushrod at an angle from the lower servo location in a straight line to the rudder control horn. This would have the rudder pushrod exit the fuselage top, just ahead of the horizontal stab, and run directly to the control horn with no bends. Exiting the fuse top will require leaving the fuselage top corner on the rudder pushrod side square for a short distance ahead of the stab. Avoid having the super sticky packing tape stick to your servo horns by putting a piece of tape on the back of the fuselage tape

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as it passes over the servo. The result is a smooth shiny plastic surface rubbing against the servo horn.

## 8) Adhesives

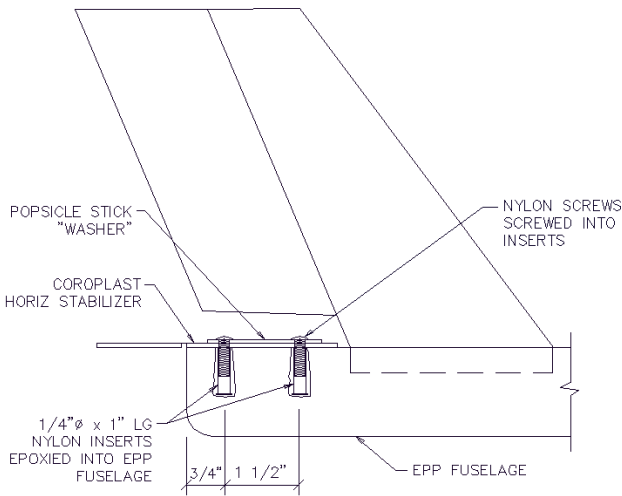
Goop works fine, but is quite thick and difficult to spread. Liquid Nails (available at Home Depot and other places) comes in a tube for small projects and is less viscous making it easier to use.

Spraying the surfaces with 3M77 before taping and again before covering can make an awful mess. On the other hand, if you spray each section in turn before you cover it, you get 3M77 all over the sections already covered. The solution to this dilemma seems to be the citrus-based cleaner Goo Gone. Spray and cover the plane in sections and then remove the excess spray on the top of the covering with the Goo Gone.

## 9) Finish

Use contrasting colors top and bottom of wing! This is a perfectly proportioned aircraft and looks identical from below when it's coming toward you or directly away - in a left bank and a right bank.

Cover the plane with Ultracote using an iron then go over the surfaces carefully using a heat gun on the wrinkles.



Here are some pictures of me (Luke Palen) and Walt Huemmer flying boomerangs at the high bridge site. (Walt is the one in red) Dave Engleson took the pictures.

## MRCSS Builders Contest

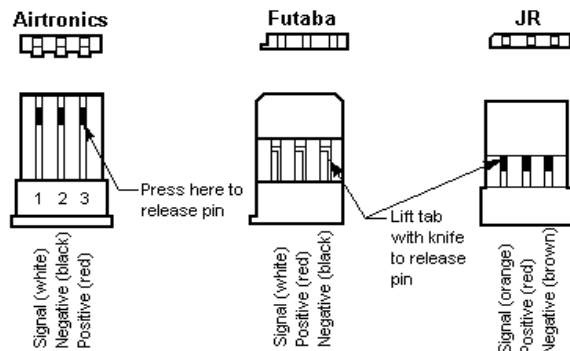
Saturday May 22nd, Rain day May 23rd

Flying starts at 10:30 AM Brats, chips, and soda served at 1200 hrs Contest will conclude by 3:00 pm

Judging of "new builds" will be during lunch. This contest will be geared towards beginners, and experienced pilots. You do not need a "new" plane to fly. Come join the fun.

Andy Karl Contest Director

## Stock Connectors



# l o o k i n g u p

The article for this photo appeared in the January issue of Looking Up. Those in the photo are (standing, left to right) Mike Martindale, Kirk Hall (holding DeGroot's model), Jim Ladwig and Craig Lamatsch (holding insulated transmitter). kneeling are Aaron Lamatsch (holding Uncle Craig's model) and Dave DeGroot (holding tips of wings).



# l o o k i n g u p

CH	Computer	Regular	CH	Computer	Regular
00			31	Okinow, Tucker, Sewell	Lamatsch, MRCSS
01			32	Metz, Harold, Okinow Stinson	Berris, Lamatsch Rent, Stinson
02			33	Rent Stewart	
03			34	Schmidt, Berris, Paske	Rent, Stewart, Paske, Brinkman
04			35	Harold	Harold, Sampson
05			36		Berris, Lamatsch
06	Bagley	Bagley	37	Okinow	Paske
07			38	Berris, Karl Christensen	Bagley, Brinkman Berris, Hocker
08			39	Stadler, Berris	
09			40	Berris Degroot	Bagley, Trutwin, Hocker Karl, Kotval, Wald
11		Rent, Sampson	41		Hanson
12	Miller	Rent, Vogelsang Van Benthuyzen	42		Wald, Rosenquist, Bristow
13	Hall, Patterson	Paske	43		Nordquist, Palen
14	Olive	Rosenquist, Paske	44		Griffiths, Vogelgesang Rosenquist, Brinkman
15	Lamatsch	Gold, Clinton, Rosenquist Tucker	45	Brinkman	
16	Botha Wald	Cotter, Coghlan, Tucker Rosenquist	46	Christensen, Okinow	Brinkman, Metz, Rent Perecman, Dahl
17	Sowder, Hall	MRCSS, Paske, Schworer	47	Martindale	Igoe
18	Botha Lamatsch	Botha, Kotval, MRCSS, Nordquist, Christensen Rosenquist, Hocker, Olive	48	Okinow, Sorenson, Sulli- van	Nordquist, Jorgensen Wald, Patterson, Vogelsang
19	Bristow	Olive	49	Berris, Wald	Palen
20	<b>DO NOT USE. LOCAL INTERFER- ENCE</b>	<b>DO NOT USE. LOCAL INTERFERENCE</b>	50	Berris Stewart, Young	Perecman, Carver, Wald Rosenquist, Hanson
21	Sowder		51	Cooke, Palen, Wald	
22	Stewart	Berris, Rosenquist	52		Griffiths, Olive, Rent, Bailey Metz, Carver, Dahl, Christensen, Huemmer
23	Perecman, Vogelge- sang	Wald, Sorenson	53	Smith, Engleson, Miller	
24	Trutwin	Bailey	54	Metz, Huemmer	Cotter, Karl, Igoe, Sampson. Patterson
25		Sampson, Croke	55	Stewart	Fisher, MRCSS
26		Bristow, Kotval Croke, Berris, Perecman	56		Perecman, Knox, Huemmer Igoe, Hocker
27	Nordquist Perecman	Lamatsch, Schworer, Phelps	57	Cotter	Bagley, Smith, Sampson Ladwig, Martindale, Lewis
28	Haley	Bristow, Kotval Degroot, Wald	58	Lamatsch, Vogelsang	
29	Trutwin	Sampson	59	Lamatsch	Olive, MRCSS
30	Dahl	Rent, Carver Rosenquist, Dahl	60	Cooke	

# l o o k i n g u p

I HAVE MADE ARRANGEMENTS FOR OUR CLUB TO TOUR THE CONSTRUCTION SITE OF A FULL SIZED AIRPLANE, AT OUR APRIL MEETING IT IS A CURTIS JENNY VINTAGE 1916 . IT MOSTLY MADE OF WOOD SO IT LOOKS LIKE A LARGE MODEL AIRPLANE. .IT IS UNDER CONSTRUCTION AT THE MINNESOTA AIR GUARD MUSEUM (OUR MEETING PLACE . THE PLAN IS TO MEET IN THE LOBBY OF THE MUSEUM AT 6:30 ON APRIL 15 (OUR REGULAR MEETING NITE) AND WE WILL BE GUIDED BY SOMEONE FROM THE MUSEUM.

Bill Igoe

bill.igoe@juno.com

## MRCSS APPLICATION/RENEWAL FORM

NAME: \_\_\_\_\_ AMA: \_\_\_\_\_  
STREET: \_\_\_\_\_  
CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
PHONE (N): \_\_\_\_\_ PHONE (D): \_\_\_\_\_  
E-MAIL: \_\_\_\_\_  
COMPUTER RADIO CHANNELS: \_\_\_\_\_  
OTHER RADIO CHANNELS: \_\_\_\_\_  
Delivery of Newsletter :  E-MAIL  US Postal Service

FEES: Associate \$10 (Newsletter Only)  
FULL / FAMILY \$20  
Junior (under 19) \$10

### **MAKE CHECKS PAYABLE TO MRCSS**

Please return to: **JIM LADWIG** by January 1 sooner is preferred  
**5354 Newton Ave S.**  
**Minneapolis, MN 55419**

# l o o k i n g u p

## MRCSS CLUB RECORDS

1999

## STUFF

FOR SALE (OR TRADE): Industrial quality vacuum pump. Runs quiet and rated for continuous use. Will generate a full 25" Hg vacuum. Lists at \$225. Yours for \$85 or trade for servos or electric powerplant stuff for my next project. Also includes details on setup for vacuum bagging wings. Call Larry at (612)403-8625 or (715)426-4918.

### LONGEST SLOPE DURATION

### ALL TIME HIGH RECORD

CLASS	NAME	TIME	DATE	NAME	TIME	DATE
1.5M/HL				Tom Rent	3:21:00	10/98
2 METER				K. ROGERS	4:29:00	10/87
STD				TOM RENT	3:17:07	8/89
OPEN				K. ROGERS	2:45:38	10/82

### LONGEST THERMAL DURATION

CLASS	NAME	TIME	DATE	NAME	TIME	DATE
HL				Brian Brinkman	0:46:01	7/96
ILLUSION HL				Dave Degroot	0:11:13	5/96
ILLUSION				Jim Ladwig	0:02:55	5/98
1.5M						
2 METER				K. ROGERS	1:37:48	8/83
STD				R. DIABAISSO	2:13:00	6/87
OPEN				S. BOWMAN	3:17:10	5/90

### LONGEST ELECTRIC DURATION

CLASS	NAME	TIME	DATE	NAME	TIME	DATE
5/6 CELL				TOM RENT	0:44:49	4/93
7 CELL				J. SMITH	2:44:12	8/94
OPEN				Brinkman	1:04:38	9/94

### FLIGHTS AFTER 6 pm

CLASS	NAME	TIME	DATE	NAME	TIME	DATE
SLOPE						
THERMAL				C. KOTVAL	0:45:02	4/88
ILLUSION HL Thermal				Jim Ladwig	0:00:13	5/98
ELECTRIC				JIM SMITH	0:20:44	8/93

### CROSS COUNTRY FLIGHTS

CLASS	NAME	TIME	DATE	NAME	TIME	DATE
<12' SPAN						
>12' SPAN				KARL/ PERECMAN	6 MILES	6/90

\*\*\* BOLD NAMES REFLECT ACTIVITY RECORDED DURING THE MONTH \*\*\*

PHONE ALL RECORDS INTO JIM SMITH. 831-8184.

**LOTS OF OPEN RECORDS PICK A CATEGORY AND GO FOR IT !!!**

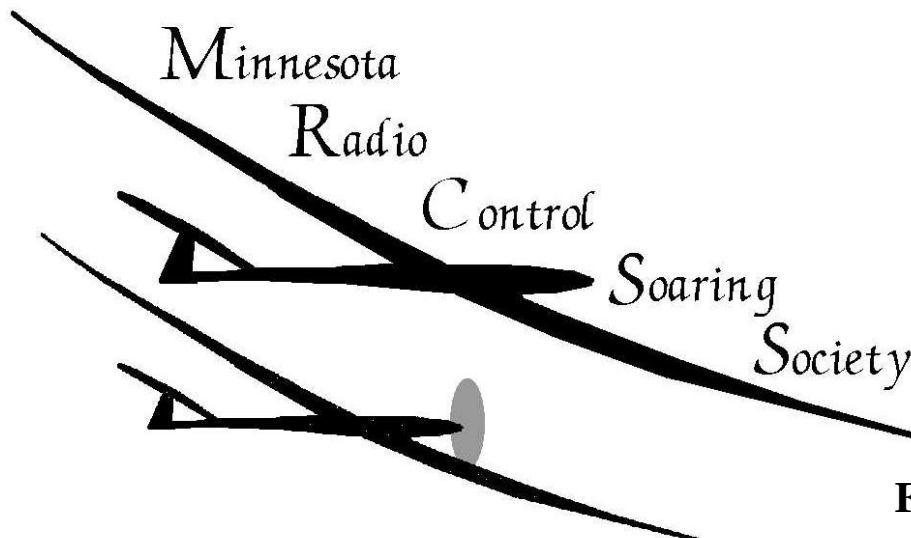
## 100 Minute Club

Thermal	Tom Rent	Level 2
	Tom Schworer	Level 1 2M
Slope	Mike Trutwin	Level 2
	Tom Rent	Level 3
		Level 4
		Level 5

Steve Stadler / MRCSS

786 Cannon Ave.

Shoreview, MN 55126



FIRST CLASS MAIL