



Thermals

Newsletter of the Rocky Mountain Soaring Association

January 2005

AMA Chartered Club 1245

Volume XXIX Number 1

President's Message

Renewal Reminder

It's time to renew your memberships. Renew with the application in this newsletter, or online at <http://www.rmsadenver.com>.

Happy Holidays and Merry Christmas,

I hope everyone is having a great holiday season and that hobby things arrive from Santa under the tree! This is my first Presidents Message and I have quite a bit of information. Let's start with our new meeting location.

New Meeting Location

Skip Miller graciously offered his office in Dacono while we looked for a more central location. Clarence Dollmeyer, was able to discover that the Broomfield Community Center would allow us a large room on our needed day for only \$10 per year. This is a great deal and a bit more central. So the new meeting location is 280 Lamar St, Broomfield CO 80020. We will be in the Lakeshore room. You go in through the Senior Center entrance and go straight ahead. We will have plenty of room for any activities there. Note the meeting time is the same as always and is listed at the bottom of this page.

First Club Meeting of the Year

The first meeting will be one of the most important of the year. We will be planning the schedule for the rest of the year. We need CDs for each of our contests. Remember – anyone can now be a CD – you simply need to volunteer. It is not that hard of a job, and you get a free membership for the following year. All who are interested in the schedule, and especially those that can CD a contest are urged to attend. This is your club, let's get some activities going. Bring a 2005 calendar and a list of any non-RMSA events you think we should attempt to avoid conflict with. Also think about any events you would like RMSA to run!

New Winch

Currently the club has 5 winches, with Mike Verzuh allowing the club semi-permanent use of his personal winch that was rebuilt at the same time as the club winches. Jeff Ellsworth has offered to sell us another winch with an excellent drum and real-balls motor at an excellent price. We have accepted his offer and I will be assembling the motor and drum to one of the spare frames we built when we built the winches. This will give us 6 permanent club winches, plus the Mike Verzuh winch that will be available all the time. If

Next Meeting:

Date/Time: January 4, 2005 – 7:00 PM

Location: Broomfield Community Center, Lakeshore Room
280 Lamar St
Broomfield CO 80020

Program: CD Meeting and Contest Scheduling

necessary we can also use my winch that is also a copy of the club winches. This provides the club the ability to field 8 nearly identical winches for our events. That will put some planes in the air!

Field Sharing

Please note that the goose hunters are again using the Sod Farm. I have an action to get with the sod farm managers to understand how we can cooperatively share the space. Until further notice, please act respectfully to the hunters and not fly in the quadrants they are in. I will have further information on this.

Renewals

Please get your membership renewals in. We want to keep everyone on the distribution list.

SWC

The Southwest Classic will again be held the first weekend in February. It is a great event and a welcome break from winter – plus a good tuneup for our contest season that begins in March. A number of members are going down again this year and it winds up being quite a party. There are some great airfares available right now – I have heard fares around \$160 round trip. The Days Inn on Juanita in Mesa has rooms for \$59. For anyone interested in driving down, I know that there are a number of members that would help subsidize your trip costs for carting down some models!

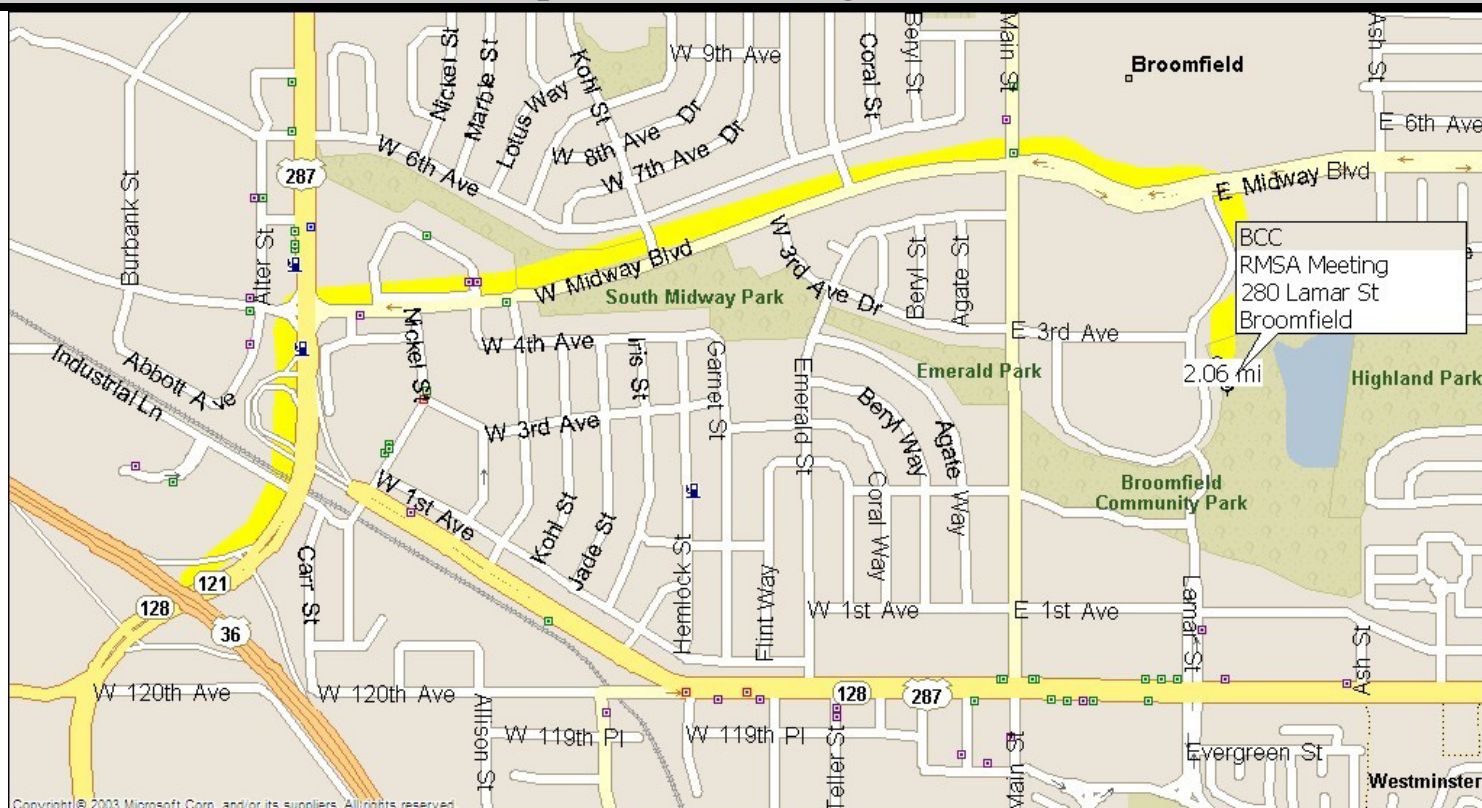
2004 Banquet

If you missed the banquet you missed a great time – the food was great a usual, and they gave us a private room this time. Be sure to put this on your schedule for next year!

Have a great Christmas and New Years!

Jim

Map to New Meeting Location



2004 Handlaunch Season Standings

HLG Season Championship Points (Best 3 of 4)	6/26/04	7/18/04	8/29/04	Oct 04 (CO Springs) Canceled			
Name	Normalized Score	Normalized Score	Normalized Score	Normalized Score	Grand Total	Normalized Score	Place
John Kappus	1000	1000	1000		3000	1000	1
Bob Vixie	983	918	928		2829	943	2
Joseph Newcomb	965	880	981		2825	942	3
Jim Newcomb	857	978	824		2659	886	4
Andrew Wright	861		810		1671	557	5
Lenny Keer			760		760	253	6
Zach Maytum			524		524	175	7

RMSA November 7th Open Contest Scores

Class	Name	Place by Class	RD 1	RD 2	RD 3	RD 4	RD 5	RD 6	RD 7	Raw Total	Rounds Flown	Total	Norm by Class	Norm by Contest	Place by Contest
M	Masters														
M	Joseph Newcomb	1	907.49	1000.00	1000.00	1000.00	1000.00	997.79	1000.00	6905.28	7	6905.28	1000.00	1000.00	1
M	Dr. Danny Williams	2	1000.00	997.76	764.86	932.58	984.55	1000.00	832.71	6512.46	7	6512.46	943.11	943.11	3
M	Bob Vixie	3	984.51	881.17	759.46	701.12	995.58	1000.00	997.10	6318.95	7	6318.95	915.09	915.09	4
M	John Kappus	4	958.15	1000.00	1000.00	1000.00	747.73	991.15	389.86	6086.88	7	6086.88	881.48	881.48	5
M	Lenny Keer	5	852.42	991.03	785.55	182.82	1000.00	986.87	257.52	5056.22	7	5056.22	732.23	732.23	7
M	Jim Monaco	6	736.73	775.78	756.21	633.71	697.57	706.78	555.07	4861.85	7	4861.85	704.08	704.08	9
S	Sportsman														
S	Steve Suntken	1	738.94	652.47	635.14	579.30	486.36	617.26	1000.00	4709.45	7	4709.45	1000.00	682.01	10
S	Cody Remington	2	1000.00	695.07	659.14	715.86	736.36	492.34	360.90	4659.68	7	4659.68	989.43	674.80	11
N	RES														
N	Dr. Danny Williams	1	1000.00	1000.00	1000.00	669.77	1000.00	902.71	1000.00	6572.48	7	6572.48	1000.00	951.81	2
N	Jim Monaco	2	708.52	812.64	880.46	1000.00	663.79	794.12	358.71	5218.24	7	5218.24	793.95	755.69	6
N	Steve Suntken	3	701.79	785.55	986.21	830.23	278.74	970.59	409.96	4963.07	7	4963.07	755.13	718.74	8
N	John Kappus	4	13.45	654.63	188.51	111.63	270.11	1000.00	540.26	2778.59	7	2778.59	422.76	402.39	12

Membership Renewal Time!

Please be sure to get your renewal in. Renewing online is fast and easy at <http://www.rmsadenver.com>. You can choose to mail your check in to Bob Rice, or you can pay online with your PayPal account. Alternatively you can print and complete the application included in this newsletter and mail it with your payment to Bob Rice, whose address is shown on the application. Renew now to continue receiving your monthly newsletters and to ensure timely communications from the officers. Prompt renewal also helps the club budgeting process, so we know how much money we have to support our activities when we plan the 2005 schedule.

Jim

It's that time of year when the weather moves us inside and I start thinking about what I want to change or build new for the coming season. There has been an interested discussion on the web recently about the most mundane of items, the throwing peg on a DLG. Someone commented that the standard round peg wasn't much of a drag issue, but Mark Drela added his analysis to show that it adds much more drag than expected. Looks like this might help me get a better launch and glide, so I'm going to give it a try. Just remember that the big launchers like Phil Barnes, Joe Wurts, and others still use a round peg. Goes to show, no one change will win you the contest!
John

From: "markdrela" <drela@mit.edu>

The drag area of a round peg is about 1.2x(frontal area). Here are my estimated drag areas compared:

0.35 sq.inches 1/8" dia x 2" long peg + junction interference drag
0.80 sq.inches 1/4" dia x 2" long peg + junction interference drag
5.0 sq.inches entire DLG during pullup at CL=0.3
3.5 sq.inches entire DLG during vertical coast-up

1/8" peg: 7-10% added drag during launch
1/4" peg: 16-23% added drag during launch

The drag of the 1/8" peg is fairly significant, and the 1/4" peg is really bad. The glide drag fractions are maybe 2.5x smaller, but still not what I'd call negligible. This is why I use a flat peg, which adds maybe 2% drag at most.

The drag reduction benefits are proportionately greater for stronger throwers. According to my numbers, removing 20% drag will give the following increase in launch heights:

A 50m launch becomes a 52.9m launch
A 40m launch becomes a 41.8m launch

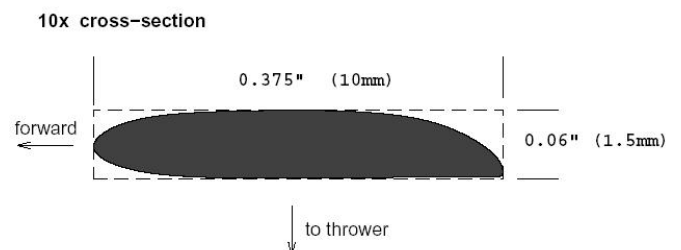
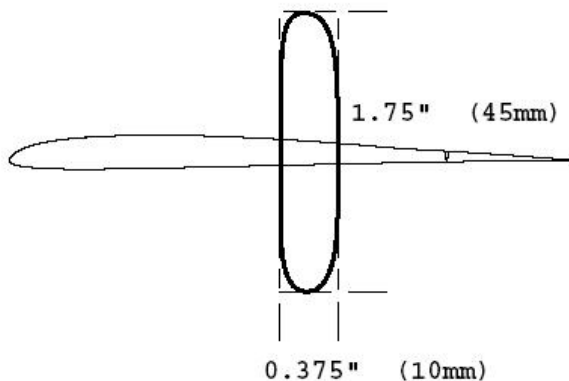
> Of course there are still extra losses during the glide phase but they are much smaller as you said.

Well, maybe. I think the biggest drawback of a round peg is in a fast upwind glide. Here are the estimated drag areas in the glide:

0.35 sq.inches 1/8" dia x 2" long peg + junction interference drag
0.80 sq.inches 1/4" dia x 2" long peg + junction interference drag
4.5 sq.inches fast upwind glide at CL=0.1
15. sq.inches slow thermal glide at CL=0.7

1/8" peg: 8% added drag during fast glide, 2.3% during slow glide
1/4" peg: 18% added drag during fast glide, 5.3% during slow glide

The fast-glide penalties are a killer IMO. A flat peg allows a lower wing loading for the same penetration capability, which gives all sorts of secondary advantages. Going to RDS also gives most advantage in a fast glide, but not as much as removing the round peg. *Mark*



Super Gee Finger Peg .06" procured unidirectional carbon

Newsletter Editor Change

Wow! That Jim Monaco is a tough act to follow. Jim had been producing the newsletter for the last 8 years. He said it was simple to do and provided amazing complete directions on just what needed to be done. For someone who has used a keyboard before, and had done a presentation or two for work, he's probably right. Guess he didn't know that my last artsy work presentation included overheads on mylar. I'll just have to try and live up to the high standards that Jim has set (in everything he does). Christmas is a tough time to add new content, but I'll try to include some building info in the coming months. The newsletter is here for all of us, so I encourage everyone to submit items of interest, trip reports, product tests, or interesting observations.

Thanks – John Kappus (Mark Howard fled for the warmth and sunshine of Mexico, lucky guy!)

PS. If you have not yet renewed your club membership, this is the last newsletter you will receive!

For Sale

Tom Finch Vampire - \$450.00 with out servos and 750.00 with new Volts Micro Maxx servos. It has one cosmetic ding in one wing panel and has only been flown about ten times.

Dr. Dan Williams drdandc@juno.com

Two Pike Superior V-Tails

The first has a carbon D-tube **F3J** plan, with yellow tops, red bottoms, JR 368s all around. The plane is in very good condition, no crashes. Comes with a spare tail, custom nose skeg, just install your receiver and fly. Priced at \$1,350 or make me an offer.

The second is a **Pike Superior Super Light** (69 oz flying weight) with yellow tops, great looking purple and black tip flashing, black bottoms, JR 368s all around. The plane is in excellent condition, no crashes. Comes with a custom nose skeg, just install your receiver and fly. Priced at \$1,400 or make me an offer.

Give me a call or email me for more details.

Mike Verzuh

(970) 532-0638 hm

(303) 939-7256 off.

Email: mike@verzuh.com

Victory RES (light)-NIB from Northeast Sailplane Products-fiberglass fuse is the Edge option with slip-on nose-vacuum bagged foam wing-Sal says it can take the hardest winch launch-\$550.00.

Bob Dixon Bob_Dixon@maxtor.com

Rocky Mountain Soaring Association - 2005

RENEWAL _____ **NEW MEMBER** _____ **SPONSOR** _____

Please complete the following information for our records:

Family Memberships - Please make and complete a copy for EACH flying family member!

Name : _____ Need name badge? Yes
 Address: _____ Year Joined RMSA: _____
 _____ Home Phone: _____
 _____ Work Phone: _____

AMA #: _____ AMA Contest Director? Yes No
 AMA Class Open Youth Family Birth Date: ___/___/___
 LSF #: _____ LSF LEVEL: ___ NSS #: _____ E-Mail: _____
 RMSA Membership Class Senior Only Senior W/Family Associate Family
 (Note - Senior W/Family receive THERMALS - other Family members check Family Box)

Non-Flying Family members: _____
 RMSA Competition Class Novice Sportsman Master
 RMSA Offices Held _____

----- MODELS OWNED -----				
PLANE	SPAN	COLOR (Top, Bott., Fuse)	CLASS (Open, HLG, Std..)	FREQUENCY

Interests: Sports Flying T/D contests HLG Contests NSS Soar-ins F3J
 F3B X-C contests Slope contests Other _____

Past Achievements: _____

Dues: \$ 7.50 New Member Initiation Fee
 \$ 5.00 Junior - under 17
 \$ 25.00 Senior - individual 17 and over
 \$ 30.00 Family - any number (same address)
 \$ 8.00 Associate (newsletter only)
 Make checks payable to RMSA

Comments and suggestions are ENCOURAGED! Please include these with your form!
REMEMBER TO SIGN THE FIELD RULES!!!

Please send to: RMSA
 C/O Bob Rice
 1123 S. Oakland St.
 Aurora, CO 80012

ROCKY MOUNTAIN SOARING ASSOCIATION FIELD RULES

1. The sod farm operations take precedence over **ALL** activities. We use the field at the convenience of the owner.
2. All members will follow **ALL** instructions from **ANY** sod farm personnel without question.
3. When sod farm operations are occurring during a flying session it is **OUR** responsibility to ensure that we will not interfere with operations. If it is unclear as to what is happening or where they intend to mow or work try to talk to workers or management and always move equipment or vacate the premises if necessary. Some workers do not speak very good English – in that case you must make every effort to avoid conflict or interference with operations.
4. Park only in the designated parking areas Do not park on grass, dirt or roads.
5. Avoid setting up on newly seeded areas or young grassy areas. The nice grassy areas are better to land on anyway!
6. Establish a frequency control pole and tag system! Frequency control is to be in effect at all times!! All members will post their frequency control tags on the pole and if there are conflicts, please exercise safety sense as well as share the flight time.
7. Parking and pit areas should be as condensed as possible for the safety of launch and landing.
8. Establish flight line areas for winch launch, high start launch, and hand launch that are separate for the sake of launch, flight & landing safety.
9. Flying over the parking/pit areas at less than 30 feet is prohibited. Doing so in competition WILL result in a zero flight score and during R/R flying a disciplinary action by the club.
10. No aerobatics or speed runs over the parking/pit/Launch/Landing zones.
11. Do not launch if a plane is circling in a launch zone: vacate the launch zone as soon as possible if someone is waiting to launch.
12. When entering a thermal occupied by other aircraft, enter in the same direction as the first aircraft
13. Landing aircraft have the right of way!
14. In the event of no mechanical retriever, please shag your own chute/line for the flight
15. Please share the usage of club equipment so that all have equal flight time.
16. Please be courteous and helpful to your fellow flyers as well as informative to all guests/spectators. Enjoy yourself and others!!
17. Absolutely no debris or trash is to be left on the field! Please take it home with you for disposal.
18. Make sure that your plane and electronics are airworthy before each flight. Exercise good safety sense in your flight
19. The aircraft will have an identification name/address or AMA number on or in the model in case of loss.
20. You **MUST** tag your winch/high start spikes or stakes with fluorescent tape so they are easily spotted on the field by all concerned. Members may be fined \$10 for each stake or nail not so marked. Previous damage to sod farm equipment from spikes left in the ground have made this rule **EXTREMELY** important.
21. Absolutely no alcoholic beverages will be consumed, prior to or during participation in any model event on the flying field.

I understand and will comply with all RMSA field rules:

Signature

2004 RMSA Contest/Event Calendar

Date	Type	CD	Name/Notes
<i>January 25</i>	<i>Open (PPSS)</i>	<i>Bob Avery</i>	<i>Fun Fly</i>
February 3	RMSA Meeting		
February 7-8			<i>SWC - Phoenix</i>
<i>February 22</i>	<i>RES (PPSS)</i>	<i>Chris Keller</i>	<i>Snow Fly</i>
March 2	RMSA Meeting		
March 7	Pro/Am	Jim Monaco	
March 14	Open*	Rich O'Connell	
<i>March 21</i>	<i>Open (PPSS)</i>	<i>John Read</i>	<i>March Madness</i>
April 6	RMSA Meeting		
April 18	Open*	Don Ingram	Spring Fling
<i>April 25</i>	<i>RES (PPSS)</i>	<i>Joel Zellmer</i>	<i>Humps and Bumps</i>
May 4	RMSA Meeting		
<i>May 8</i>	<i>Electric (PPSS)</i>	<i>Jack Dech</i>	<i>Watts O' Fun</i>
May 16	Open*	Bob Moffett	Summer Fun
<i>May 23</i>	<i>Open (PPSS)</i>	<i>Chris Keller</i>	<i>May Fly</i>
June 1	RMSA Meeting		
June 6	Open*	Tony O'Hara	
June 5-6			<i>IHLG - Torrey Pines</i>
June 19-20	F3J in the Rockies*	Mark Howard	Tentative schedule
<i>June 20</i>	<i>RE (PPSS) !</i>	<i>Dave Kurth</i>	<i>Memorial</i>
June 26	HLG**	John Kappus	
June 27	Scale Fest	Lenny Keer	Scale Fun Fly
July 6	RMSA Meeting		
July 11	Open*	Jim Monaco	Sparks Flying Open
July 18	HLG**	John Kappus	
July 24-31			<i>Soaring NATS - Muncie ID</i>
<i>July 25</i>	<i>Open (PPSS)</i>	<i>Bob Avery</i>	<i>Height O' the Season</i>
August 2-8			<i>F3J World Championships - Red Deer Canada</i>
August 3	RMSA Meeting		
August 8	Open*	Mike Verzuh	
<i>August 14</i>	<i>Open (PPSS)</i>	<i>Austin Cleis</i>	<i>Howling Coyote (night fly)</i>
<i>August 22</i>	<i>RES (PPSS)</i>	<i>Greg Tarca</i>	<i>Dog Daze</i>
August 29	HLG**	John Kappus	
September 7	RMSA Meeting		
September 12	Open*	Bob Rice	Colorado Challenge Cup
<i>September 26</i>	<i>Open (PPSS)</i>	<i>Gus Gustafson</i>	<i>Soar Bash</i>
October 2-3			<i>Visalia Fall Fest</i>
<i>October 3</i>	<i>HLG (PPSS)</i>	<i>Bob Vixie</i>	<i>Fall Fling</i>
October 5	RMSA Meeting		
October 10	Open*	Dr. Dan Williams	
<i>October 24</i>	<i>RES (PPSS)</i>	<i>Dave Meyers</i>	<i>Witches Brew</i>
November 2	RMSA Meeting		
November 7	Open*	Dr. Dan Williams	
<i>November 21</i>	<i>Open (PPSS)</i>	<i>John Read</i>	<i>Turkey Shoot</i>
December 5	RMSA Banquet		

*Club Open points contest (Best 6 Scores)

**Club HLG points contest (Best 3 of 4 including the PPSS HLG event)

! Planes will be limited to rudder and elevator controls, but the wing span limitation has been lifted.

Italics indicates PPSS events held at their location



2005 Board Members

President:	Jim Monaco	(303) 464-9895	JimMonaco@earthlink.net
Vice President:	Mike Verzuh	(970) 532-0638	mailto:mike@verzuh.com
Secretary:	Bob Rice	(303) 745-5629	mailto:brice@p2es.com
Treasurer:	John Pearson	(303) 306-6800	mailto:JTP1006@earthlink.net
Past President:	Dr. Danny Williams	(303) 903-2291	drdandc@juno.com

Member Support

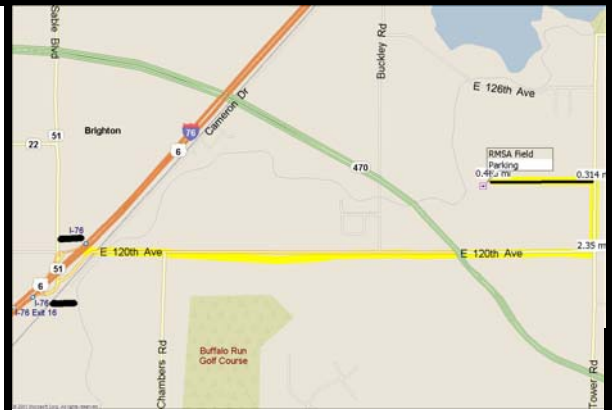
<http://www.rmsadenver.com>

Chief

Instructor:	Jack Zika	(303) 279-1549	(303) 505-9488 (Pager)
Instructor:	Mark Howard	(303) 278-7519	MHoward@spaceimaging.com
F3B/F3J:	Mark Howard	(303) 278-7519	MHoward@spaceimaging.com
Librarian:	Tracy Cochran	(303) 934-8838	Tcochran@idcomm.com
Newsletter:	John Kappus	(303) 861-7121	john.kappus@alum.mit.edu
	Mark Howard	303) 278-7519	MHoward@spaceimaging.com

Winch Master

Mike Verzuh (970) 532-0638 <mailto:mike@verzuh.com>



Directions to Field

Take I-76 to exit 16. Turn left and follow the frontage road to the stoplight and turn east onto 120th eastbound towards the airport. Take 120th East to Tower Rd. Turn left (North) on Tower. Look for a left turn onto a dirt access road on the North side of the sod farm. We are on the Northwest corner of that part of the sod farm.

Flying for RMSA members and accompanied guests only.



Rocky Mountain Soaring Association
1123 S. Oakland St
Aurora CO 80012

Forwarding Address Requested

First Class Mail