



Thermals

Newsletter of the Rocky Mountain Soaring Association

March 2003

AMA Chartered Club 1245

Volume XXVII Number

President's Message

The SWC is now in the bag or maybe it should have been bagged.... Anyway the weather was good down there and on Friday and Saturday they set all time high records for those days so we were all enjoying 85 degree days down there. Now Sunday was a different story's though as a front moved through and the wind picked up to the twenty mph range. The RMSA got third in the Club contest. Bob Lewan was top RMSA at fifth, myself in second at ninth, Mark Howard eleventh, Bob Vixie 22nd, Joseph Newcomb 23 and first Youth, Skip Miller 31st and so on. you will see the rest later in the news letter thanks to Jim Monaco who got 44th.

On the way home Phil Jones ran into a bit of bad luck hitting some black ice on Raton pass on the way home, skidding into the guard rail and rolling his Explorer on its side. He was able to drive it home and he was un hurt except for his V tails that got damaged.... Much better than what it could have been.

I think what Dan Borer from the SWSA club said in the SWSA news letter say's it best. Here is a excerpt from what he wrote in the news letter.

"This contest was very poorly planned and executed when compared to the previous ones. The previous contests were planned by Garland Hanson and Steve Willcox and really first rate. This time some of the same folks were involved but there was no coordination.

It all started with difficulty in finding the site. The promised signs never were posted. Everyone had a very hard time finding the site or getting into it once it was found. Several folks arriving in the dark gave up and camped at the old field and tried again in the morning to find the new field

When Saturday arrives Launches and landings were oriented in a north/south direction. You launch to the south, directly into the sun and land to the north, still looking into the sun. The only guarantee was that you could have an upwind launch and then a downwind landing or visa versa The landing zones were large blue circles worth 25 points with a smaller dark blue 50 point circle, still smaller pink 75 point circle and a minuscule 100 point orange circle. Only problem was that none of these inner circles were in line with another. You had to pick your desired landing score and aim for that with the chance to get 25 points in case you bounced out on the hard clay. I don't think there was a single 100 landing in the contest.

The awards were a fiasco for all classes except open. They had Fred Sage flying in RES, young guys in Gray Cup and who knows what other errors.

Luckily the total scores appear to be correct even if the classes were wrong. All class trophies will be awarded and mailed once the database is corrected. It sounds like someone did a sort in their Excel spreadsheet without the class column included in the sort data. The contest was shortened to only 5 rounds when Sunday dawned with wicked winds blowing. Some unlucky souls had to launch early only to lose their planes in landing mishaps.

The round was stopped until the winds died down about 30 minutes later. The order to launch was given again. More wind and another halt. The contest was shortened to only 5 rounds when Sunday dawned with wicked winds blowing. Some unlucky souls had to launch early only to lose their planes in landing mishaps.

The round was stopped until the winds died down about 30 minutes later. The order to launch was given again. More wind and another halt. Decent conditions for some, rotten for others as there was a almost two and a half hour difference between the times that everyone flew.

Next Meeting:

Date/Time: March 4, 2003 – 7:00 PM

Location: Broomfield Advanced Chiropractic
26 Garden Ctr
Broomfield CO 80020-7012

Program: Planning for our Spring Soaring Festival and other events!

Tough conditions? Yes.
Glitches in the execution? Yes.
Smaller turnout? Yes.
But was it still fun? YES!
"You should have been there."

We have new winch motors so we will have some strong winches for this next year as the old ones had been rebuilt to many times.

At the next meeting we will be organizing for our three, Two day soaring events, so anyone that wishes to help please be there as there is a lot to do and we need all the help that we can get so this will be an important meeting so do not miss it...

See you at the field, *Dr. Dan*

5TH ANNUAL RMSA PRO/AM - March 2, 2003

What is it? A fun TEAM soaring event with 2-man teams picked randomly.
Who is it for? Everyone - One Pro and one AM per team
Why? To help new and current non-contest fliers learn to fly better, for our Masters to pass on their fantastic knowledge, and to tune up for the coming soaring season

How will it work?

One Pro and one Amateur will be paired as a team for the entire day. The team scores will be combined at the end of the day to determine the winning team.

- ?? Round 1 will be the "Trim" round. In this round the Pro may fly 1 time to achieve the round duration, but the Am may fly as many times as they can/want to achieve their "best" score. Best is defined as a combination of 1 flight and landing. Landings may not be combined with a different flight. It need not be the last flight. During this round the pro may launch and fly the Am sailplane to help with trimming and setup, but only flights completely flown by the Am are eligible for scoring.
- ?? Rounds 2-n will be standard AMA T1 International Duration with only 1 scoring flight allowed per contestant and FAI 15 meter landing tapes.
- ?? Amateurs are allowed 2 popoffs per round - Pros are allowed 1 per contest.
- ?? Rounds will be flown "open winch" which will allow the Pros to instruct the Ams in air reading and selecting a time to fly.
- ?? Rounds will be 50 minutes long and you must launch prior to the round-end signal in order for the flight to count.
- ?? Pro and Am MUST time for each other - Pro should help the Am learn the basics of timing.
- ?? There are no field boundary requirements - land safely where you can for flight points.
- ?? In order to balance the number of Pros and Ams it may be necessary for a single PRO score to count with more than one AM score (different teams) or vice versa..
- ?? The CD will make the final determination of who is a Pro and who is an Am. CD determination is FINAL. The guiding rule is fairness.
- ?? Amateurs are encouraged to fly their plane up the winch with the Pro throwing and pedaling the winch, but for those unable or fearful of the winch, the Pro may fly the sailplane to the top of the launch, but must give the transmitter to the Amateur immediately when the plane is off the towline.
- ?? Your first flight of a round must be your scoring round (except round 1 for Amateurs), but after you have completed a scoring round you may fly as many flights for fun as you can in the rest of the flight window. Flyers needing a scoring flight have priority at the winches.
- ?? The person that fetches the chute has priority for launching on that winch - generally you will fetch the chute in order to fly...

Masters - This is an opportunity to have some fun and help out our newest flyers and members... and tune-up for the contest season.

Beginners/Novices - This is your opportunity to work one on one with a Master for a whole day, and even if you never fly another "contest" this will improve your soaring skills a great deal. Come take advantage of it...

Date: Sunday March 2, 2003
Registration: 8:30 AM to 9:00 AM
Pilot's Meeting: 9:00 AM
First Round: 9:15 AM
CD: Jim Monaco (303) 464-9895 jimMonaco@earthlink.net

No Entry Fee, AMA Membership Required

Certificates will be awarded to the top 5 scoring teams and the top Pro and Amateur

March 9th Open Contest CD Bob Pederson

Entry Fee: \$5.00
Registration: 8:30 AM
Pilot's Meeting: 9:15 AM
First Flight: 9:30 AM

Current (2001) AMA membership is required and must be shown – if you haven't renewed – get to it...

Please be registered and have planes assembled by Pilot's Meeting

Winchmasters: Please be at the field by 9:00AM. If you are unable to attend please contact the CD to arrange to have your winch/retriever available

Tasks: Tasks will be man on man duration with times set according to conditions.

Landing: Regular AMA landing tapes will be used.

For Sale

1. **One pair of RES bagged wings for the Nesail Victory.** Airfoil: SD7037 wingspan: 121" Paid: \$325 Sell: \$100 **Wings Only**
John Pearson 303 306 6800
john@pearsonandpearson.com

1. **Emerald** – Some battle scars but in pretty good condition. Freshly painted fuselage. Built-up rudder installed (original molded rudder comes with it). 2 HS-85BB servos on ailerons. 2 HS225BBMG servos on Flaps. 2-HS85BB for rudder elevator. No receiver or battery. \$450
2. **LOLO – altitude recording device** – A LOLO is a device to place in your sailplane to record altitude during your flights. It comes with operating instructions, a serial port connection for your computer and SW to load the data into EXCEL and graph your flight times and altitudes. \$85
Jim Monaco JimMonaco@Earthlink.net (303) 464-9895

1. **Jaro Mueller Ellipse-4**, Excellent condition, Yellow top-Red bottom. Completely built with JR/New Airtronics connectors. No radio components, install your gear and fly. Can provide Stylus program if desired. **\$850.00 OBO**
rlewan@earthlink.net

1. **Emerald** - No batteries or receiver. Volz Micro Maxx X servos(6) Soars Great, Lands Great, **\$350**
2. **Risk HLG** - No receiver. w/battery pack 2 Hitec HS55 in wing No servos in fuse' **\$65**
Chuck Stasek (303) 530 9373 cstasek@attbi.com

Bert Evans

7290 Samuel Dr. #310

Denver, CO 80221

(303) 427-5581 (Days)

(303) 699-7163 (Evenings); E-mail: evansalbertv@qwest.net

Reasonable offers accepted!

Open Class Planes

1. 1 Eclipse molded V-Tail2- JR 3321 servos on flaps4- JR 341 servos on ailerons, Rudder and Elevator \$600
2. 1 Prism V-Tail 120" With 4 JR 341 servos and 2 Airtronics 141 servos \$300

3. 1 Thermal Eagle With 6 141 servos \$300 with servos
4. 1 Thermal Eagle With 6 Becker servos plus one spare servo \$300 with servos
5. 1 Thermal Eagle With 2 JR 3321 servos on flaps 2 JR 341 servos on ailerons 1 JR 341 servo on rudder 1 Airtronics 141 on elevator \$400 with servos
6. 1 Molded Eagle (Steve Lewis) With 6 Airtronics 141 servos \$600 with servos
7. 1 Comet 88 F3B - Cruciform tail With 4 141 servos and 2 Standard Futaba servos \$200 with servos
8. 1 Spirit - 100" With 4 141 servos and 2 standard BB servos \$150 with servos

2-Meter Planes

1. 1 2-Meter Monarch with 6 JR 341 servos \$400
2. 1 2-Meter Monarch Kit (some work done) \$100
3. 1 Vulcan 2M With 6 JR 341 servos \$150 with servos

Handlaunch Planes

1. 1 Avenger by Mark Allen "A" Tail \$20
2. 2 Climax PF HL V-Tail (sage) With 4 141 servos \$150
3. 1 Vertigo HL V-Tail glass fuse With 2 JT 501 servos \$50 no servos \$100 with servos
4. 1 Climax wood (light) \$50 no servos

Radios and Accessories

1. ? Hi-Tec Receivers (\$70 new) Mostly for Airtronics \$25 each

POWER STUFF

1. 1 Roadrunner 160 OS Twin, plus Airtronics Vanguard Tx, Rx Like new (100 flights) \$800
2. 1 Ultra Sport 1000, Super Tiger 2500 Tuned Pipe, Fixed Gear, Full Wing, all servos, Like new \$400
3. 1 Ultra Hots 82" span, Super Tiger 3000 Airtronics Vanguard Tx, Rx, Good condition \$400 complete
4. 1 Train-Air 40, OS 40, Airtronics Vanguard Tx, Rx \$250 complete
5. 1 Elan built by Jim Eide Contest BB servos, Retracts, YS120, like new \$650
6. 1 Phaeton II Bipe, OS60, 4-stroke (needs Bearing) Airtronics Vanguard Tx, Rx and servos \$400
7. 1 Sig Clipped Wing Cub Kit NIB \$80
8. 1 OS 40 Surpass NIB \$70
9. 1 60 Bingo - Saito 65, Futaba Tx, Rx, servos Like new \$300
10. 1 Lazy Bee OS 25, 3 servos, floats, extras, like new \$150
11. 1 Typhoon 900, Presheeted wings and tail \$250
12. 1 20 Stick 4 servos \$50 without servos \$100 with servos
13. 2 Hano .60s \$100 each

Final Scores from Phoenix SWC

Below are the final scores from the SWC. We did quite well as a club with no RMSA member being lower than 80th place. I included all the scores down to 80th place and the normalized scores that will count towards year end club points.

Place	Name	Name	Place	Team	Class	Total	Norm	Landing
1	Jennings	Gordon				4159		175
2	Sage	Fred		TPG		4141		150
3	Lenard	Bob				4136		150
4	Lee	Mike		TPG		4092		200
5	Lewan	Robert	1	RMSA		4082	987	250
6	Thomas	Jim				4078		175
7	Reagan	Mike				4072		125
8	Triebes	Mark				4023		50
9	Williams	Dan	2	RMSA		4022	972	225
10	Finkenbiner	Keith		TPG	Gray	4014		75
11	Howard	Mark	3	RMSA		3999	967	50
12	Perkins	Daryl		HSS		3990		25
13	Browning	Mark		HSS		3979		75
14	Russell	Mark		CASL		3974		50
15	Erickson	John				3970		50
16	Markiewicz	Arthur		TPG		3944		75
17	Greening	Craig				3931		125
18	Nielsen	Blake				3904		175
19	Wurts	Joe				3896		150
20	Lugo	Bren				3853		100

Place	Name	Name	Place	Team	Class	Total	Norm	Landing
21	Smith	Michael				3850		125
22	Vixie	Bob	4	RMSA	Res	3801	919	50
23	Newcomb	Joseph	5	RMSA	Youth	3794	917	50
24	Engman	Gary				3790		25
25	Norenberg	Lowell			Gray	3785		50
26	Gomez	Emanuel		TPG	Youth	3762		75
27	McCleave	Randy				3754		100
28	Russo	Guy				3748		25
29	Anderson	Paul				3725		125
30	Trout	Craig			2m	3710		50
31	Miller	Skip	6	RMSA		3694	893	50
32	Morjoseph	Michael				3679		50
33	Hitzel	Joe				3678		25
34	Ingram	Don	7	RMSA		3673	888	125
35	Bothell	Richard				3647		25
36	Siegel	Paul				3643		150
37	Jones	Philip	8	RMSA		3624	876	25
38	Brady	Merrill			Res	3611		125
39	Verzuh	Mike	9	RMSA		3608	872	50
40	Kornberg	Dave				3599		125
41	Petrowske	Pete				3583		75
42	Warner	Garth				3551		75
43	Kitchens	Dale				3540		50
44	Monaco	Jim	10	RMSA		3516	850	125
45	Botkin	Vince				3513		50
46	Barrie	Darwin				3508		0
47	Gomez	George				3506		0
48	Schulte	Paul				3494		50
49	Tonnelli	Jerry			Res	3484		75
50	Bingham	Shannon	11	RMSA		3480	841	75
51	Arance	Henry			Gray	3448		100
52	Averill	Buzz			Gray	3423		75
53	George	Stephen				3416		75
54	Miller	Charles	12	RMSA		3404	823	25
55	Jennings	Ed			Res	3400		25
56	Adams	Ron				3382		50
57	Clark	Don				3370		100
58	Moffett	Robert	13	RMSA		3368	814	125
59	Ihle	John				3365		25
60	Jeffery	Larry				3344		25
61	Hanson	Garland				3327		50
62	Johnston	Robert	14	RMSA		3325	804	50
63	Padilla	Jon	15	RMSA		3317	802	150
64	Olsen	Pete				3311		75
65	Smith	Frank			Res	3311		50
66	Renaud	Philip				3299		75
67	Scegiel	Don				3266		50
68	Leal	Mike				3257		0
69	Stern	Michael			Gray	3243		25
70	Andersen	Barry			2m	3228		0
71	Vera	Edgar				3227		75
72	Stasek	Charles	16	RMSA		3212	777	0
73	Nielsen	Spencer			Youth	3193		100
74	Aveson	Bruce			Gray	3169		25
75	Clark	Darrell				3162		50
76	Gross	Jerry				3140		75
77	Baird	John				3125		25
78	Blakeslee	Byron	17	RMSA	Gray	3075	743	0
79	Sneed	Jim				3058		0
80	Keer	Lenny	18	RMSA		3055	739	100

E-Soaring – Lenny Keer

Hotliners and F5B

Hotliners! Even the name sounds exciting. These are probably the most versatile and fun to fly electric sailplanes made. They could be considered the “sports cars” of electric soaring. This type of plane is generally sleek, strong, and aggressively powered. Power can be anything from 7 cells on up. Brushless motors offer the best power to weight ratio, but a good brushed motor can provide good power too. With an appropriate motor system vertical climbs are easily accomplished. Kind of like a slope ship that requires no slope, they excel at carving smooth high speed turns and performing whatever aerobatic maneuvers you’re capable of. They thermal fairly well too; especially when using a good 7 to 10 cell power system.

A typical flight might include multiple climbs to altitude, a variety of pleasing maneuvers and high speed dives, followed by thermalling back up to altitude for some more fun. Flight times would typically be in the 15-30 minute range, and can go much longer with a little thermal help.

Most hotliners have aileron and elevator controls. Some have flaps too, and a few have a rudder. Wingspans are usually around 50” to 80” and construction ranges from balsa over foam to hollow molded glass and carbon wings. Fuselage construction is almost exclusively fiberglass.

For some good examples of hotliners, check out the Bandit from Aeromodel, the Nike, Filip E, or Flash E from Northeast Sailplanes, or the Mini-Ellipse from Skip Miller. If you’re looking for something to spice up your stable of TD sailplanes, a good hotliner may be just the ticket!

F5B is an international, multitask electric soaring class requiring high power for fast climbs, and the lowest drag and highest efficiency possible to maximize the glide. Each flight consists of a distance task, a thermal task, and a landing task. The flight starts with a 200 second distance task on a 150-meter course. The object is to achieve as many laps as possible in the allotted time. The motor can only be run when outside of the course. When the distance task ends, the thermal task immediately starts. This is a 10-minute thermal duration task, ending with a spot landing. In the thermal portion of the flight, the motor can be run as much as needed, but each second of motor used counts against your score. The best pilots in the world are doing 40-43 laps in distance, and making the 10-minute duration with only 5 to 10 seconds of power used.

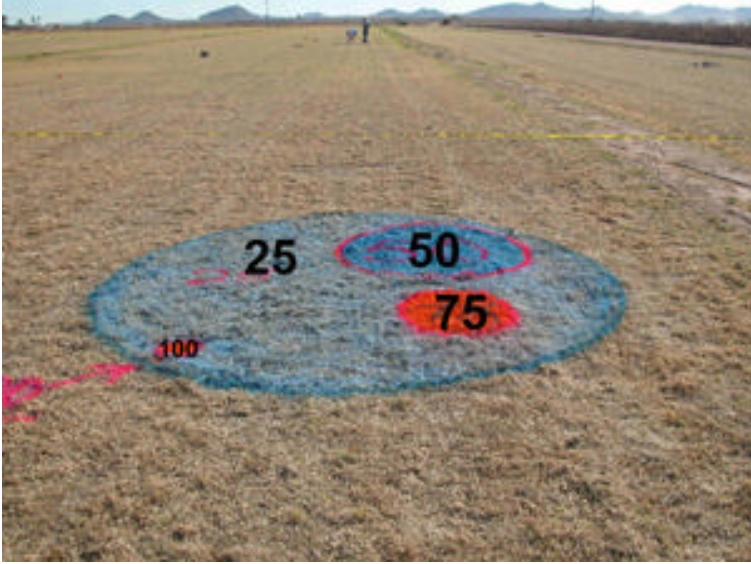
If hotliners can be considered the “sports cars” of electric sailplanes, then F5B models would be the Ferraris or Maseratis. These planes are at the top of the hotliner food chain. Their design is dictated by the international rules for this competition class. They are usually all molded glass and carbon construction with very thin airfoils. They have to be very strong to accommodate the high-G turns used in the distance task, and very clean and efficient to maximize the thermal performance. Wingspans normally range from about 65” to 80”. Controls are ailerons and elevator, and sometimes flaps. Rudder control is not used. ShredAir carries several F5B models including the “Surprise” series.

Currently, there are three classes of F5B models being flown. 7-cell, 10-cell, and Open. All are capable of incredible performance. The Open class specifies a battery weight under 1100 grams. This class used to use 27 of the 1000 mah nicad cells, but the current standard is 24 of the CP1700 cells. The 7 and 10 cell classes normally use CP2400 nicads. Current draw is typically in the 100 amp range, so all battery packs use zapped cells and brushless motors are used exclusively. While these planes certainly fit into the “high performance” category, they’re not really difficult to fly. They are designed to handle well despite their higher wing loading. With spoilerons (and sometimes flaps) deployed they still slow down to a reasonable speed for landing.

If there’s a hotliner in your future, I’d be glad to assist anyone in selecting a plane and power system. If F5B flying sounds like something you’d like to try, I’d suggest starting out with a good 7 to 10 cell system. On June 7th and 8th, I will be hosting an F5B contest in Denver. F5B flyers from around the Western US are expected to be there, including some of the US team members. A competition F5B plane is not required though, and anybody flying a hotliner type plane is invited to participate. It will be an excellent opportunity to see the epitome of electric soaring first hand.

Lenny Keer, Lenny970@AOL.com

Pictures from the South West Classic – Courtesy of Dr. Dan



Landing Zone (Downwind to boot)



Our Tent



Lenny gave a great demo of this 6m Nimbus



Pilot's Meeting



Don was ready to rock!



Doc was landing the ICON real well too...

2003 RMSA Contest/Event Calendar

Date	Event	CD	Notes
Jan 7	RMSA Meeting		
Jan 25	Open Event (PPSS)	Joel Zellmer	Fun Fly
Feb 1-2	SWC		Phoenix SouthWest Classic
Feb 4	RMSA Meeting		
Feb 23	Open event (PPSS)	Steve Bygren	Snow Fly
Mar 2	Pro-Am	Jim Monaco	Sixth annual Pro-Am
Mar 4	RMSA Meeting		
Mar 9	Open*	Bob Pederson	March Blowout
Mar 22	Open event (PPSS)	Larry Laughlin	March Madness
Apr 1	RMSA Meeting		
Apr 5	RES event (PPSS)	Rich O'Connell	REServe
Apr 6	Open*	Jim Barr	Spring Thermals
Apr 27	F5J!	Lenny Keer	
Apr 27	Open event (PPSS)	Rich O'Connell	Humps and Bumps
May 4	Open*	Don Ingram/Bob Johnston	Spring Fling
May 6	RMSA Meeting		
May 17	Open event (PPSS)	Austin Cleis	May Fly
May 18	HLG**	John Kappus	
May 24, 25	Spring Soaring Festival*	Mark Howard	Special National Event – click date for more info
May 31	F5J!	Lenny Keer	
June 1	Open**	Bob Moffett	Summer Fun
June 3	RMSA Meeting		
June 7&8	F5B!	Lenny Keer	National Level Contest
June 7-8	IHLG		
June 14	Electric event (PPSS)	Jack Dech	Watts of Fun
June 22	HLG**	Jim Newcomb	
June 22	Open event (PPSS)	Chris Keller	Summer Solstice
June 28-29	F3J in the Rockies*	Mark Howard	Two Day National Event – click date for more info
July 1	RMSA Meeting		
July 12	RE event (PPSS)	Dave Kurth	Memorial
July 13	Open*	Jim Monaco	Firecracker Open
July 19	Open event (PPSS)	Bob Avery	Height of Season
July 20	HLG**	Dr. Dan	
July 26/27	F5J	Lenny Keer	Electric event – click date for more info
Aug 2	Open event (PPSS)	Greg Tarca	Howling Coyote (Night Fly)
Aug 3	F5J!	Shannon Bingham	
Aug 5	RMSA Meeting		
Aug 10	Open*	Bob Johnston/Don Ingram	Hotter than Snot
Aug 24	HLG**	John Kappus	
Aug 24	Open event (PPSS)	Dave Meyers	Dog Daze
Aug 30-Sept 1	F3J Team Selections		TENTATIVE
Sept 2	RMSA Meeting		
Sept 7	Open*	Bob Rice	AKA: Colorado Challenge Cup
Sept 20	Open event (PPSS)	Barry Welsh	Soar Bash
Sept 21	HLG**	John Kappus	
Oct 4-5	VISALIA		
Oct 4	HL event (PPSS)	Bob Vixie	Toss Up
Oct 7	RMSA Meeting		
Oct 12	Open*	Shannon Bingham	Falling Leaves Open
Oct 18	RES event (PPSS)	Jack Dech	RESpite
Oct 26-27	F5J		Phoenix National Competition
Oct 26	HL event (PPSS)	Mike Fritz	Witches Brew
Nov 4	RMSA Meeting		
Nov 23	Open event (PPSS)	John Read	Turkey Shoot
Nov 9	Open*	Jim Monaco	Last Chance Thermals
Dec 6	? (PPSS)	John Read	Barn Fly
Dec 7	Awards Banquet		

*Club Open points contest **Club HLG points contest ! Field will be open to sport flying, but frequency control will be in use and contest participants have frequency priority
 Italics indicates non-RMSA events



2003 Board Members

President:	Dr. Danny Williams	(303) 903-2291	drdandc@juno.com
Vice President:	Mark Howard	(303) 278-7519	Mhoward@spaceimaging.com
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Member Support

<http://rmsa.homestead.com>
Chief

Instructor:	Jack Zika	(303) 279-1549	(303) 505-9488 (Pager)
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F3B/F3J:	Mark Howard	(303) 278-7519	Mhoward@spaceimaging.com
Librarian:	Tracy Cochran	(303) 934-8838	Tcochran@idcomm.com
Newsletter:	Jim Monaco	(303) 464-9895	JimMonaco@earthlink.net

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Gary Lewan	(303) 277-1375	glewan@msn.com
Dr. Dan Williams	(303) 439-7777	drdandc@juno.com
Phil Jones	(720) 488-2854	philip.jones@galileo.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. Continue straight through traffic light and look for the sod sprinkler on the left. We are on the southwest 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

First Class Mail

Forwarding Address Requested