



Thermals

Newsletter of the Rocky Mountain Soaring Association

May 2002

AMA Chartered Club 1245

Volume XXVI Number 5

President's Message

May is here and the contest season is in full swing now with allot happening. Owl Canon is May Fourth so if you want to go be sure to get a RSVP to Jim as soon as possible. This event sounds like a lot of fun for the family so try and make it if you can. F3J in the Rockies is coming up at the end of this month. So get your entries in if you want your frequency and get on a team. Last year was a great time and Mark Howard tells me that we are going to fly as many rounds as possible on Saturday and Sunday till noon then the Fly offs will be in the afternoon on Sunday. A lot of flying and work will be involved so even if you do not plan to fly please come out and help us as we will need all the help we can get so we can have a smooth run contest.

I got to fly a SWSA contest out in California last month. After our showing at the South West Classic well let just say that the Colorado flyers have gained allot of respect out there and I held up my part by getting a second place in the open class. I missed getting first by less than fifteen raw points (I blew a landing). I also got second in RES. I may have talked some of the So Cal boys into coming up to Colorado for a contest as many of them are interested in coming up for a two day Soaring Festival in Colorado.

I just got the new winch chutes in the mail today and they look great. For those of you that need a thin ring for your bird you will be happy to know we now have a small thin one piece ring's on them, So winch masters get a hold of me and get your new chutes as there is a different color for each winch.

I have solved the porta-potty problem as the Sod Farm management has now given permission for us to use their porta-potty s located north of the field up by the big dirt mound and we are allowed to drive on the road to get to them. I believe that for this month's meeting John Kappus is going to show us how to make a HLG Fuselage...

Well that is all I can think of for this month (I know I am forgetting something!!!)

See you at the field *Dr. Dan Williams*

Next Meeting:

Date/Time: May 7, 2002 – 7:00 PM

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

Program: John Kappus demonstrating HLG composite fuselage construction

May F3J Intro with Winches
Sunday May 5, 2002
CD Don Ingram

Registration: 8:30-9:00AM
Pilot's Meeting: 9:15AM
First Round: 9:30AM
Entry Fee: \$5.00 (\$3.00 Jrs)

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

Winchmasters: Please be at the field by 8:30AM.

Tasks: At least 5 rounds of F3Jish flights

Landing: FAI Spot Landing with FAI tapes.

Note this event will follow F3J Rules except club winches will be used for launching instead of hand tow and skegs are allowed. The F3J rules follow:

- 1) The flight in progress is annulled and recorded as a zero score if the model loses any part during the launch or the flight, except when this occurs as the result of a mid-air collision with another model or towline.
 - a) The loss of any part of the model during the landing (coming into contact with the ground) is not taken into account.
- 2) The flight is cancelled and recorded as a zero if the model is piloted by anyone other than the competitor.
- 3) The flight is cancelled and recorded as a zero score if, during landing, some part of the model does not come to rest within 75 metres of the centre of the competitor's designated landing circle.
- 4) The competitor will be allowed two attempts at each official flight.
 - a) There is an official attempt at a flight when the model has left the hands of the competitor or those of a helper under the pull of the tow line.
 - b) The official flight for a round is the last flight performed during the working time.
- 5) The competitor is entitled to a new working time in an incomplete group, or with his original group at the end of the task if:
 - a) his model in flight collides with another model in flight, or with a model in the process of being launched.
 - b) his flight was hindered or aborted by an unexpected event, not within his control.
 - c) In the case of additional attempts during a round for the reason of reflights, the better of the two results will be the official score, except for the pilots who are allocated the new attempt. For those, the result of the repetition flight is the official flight. Note that in the case the competitor continues to launch or does relaunch after clearing of the hindering condition(s), he is deemed to have waived his right to a new working time.
- 6) Any model launched prior to the start of a group's working time must be landed as soon as possible and re-launched within the working time. Failure to comply will result in cancellation of the competitor's score for that round.
- 7) The flight will be timed from moment of release from the launching device to either:
 - a) the moment the model first touches the ground; or
 - b) the moment the model first touches any object in contact with the ground. Parts of launching devices (tow-lines) extending away from the ground shall not be interpreted as objects in contact with the ground; or
 - c) completion of the group's working time.
- 8) The flight score will be composed of one (1) point for each full second of flight time.
- 9) A penalty of thirty (30) points will be deducted from the flight score for overflying the end of the group's working time for up to a maximum of one (1) minute.
- 10) A zero score will be recorded for overflying the end of the group's working time by more than one (1) minute.
- 11) A landing bonus will be awarded in accordance with distance from the landing spot marked by the organisers according to the following:
 - a) Landing within 1 meter = 100 Landing within 20 meters =30. 5 points per meter in between. Greater than 20 meters = 0.
 - b) The distance for landing bonus is measured from the model nose at rest to landing spot allocated to the competitor by the organisers.
 - c) No landing bonus points will be awarded if the model overflies the end of the group's working time.
- 12) The competitor who achieves the highest aggregate of points comprising of flight points plus landing bonus points and/or minus penalty points, will be the group winner and will be awarded a corrected score of one thousand points for that group.
The remaining competitors in the group will be awarded a corrected score based on their percentage of the group winner's total score before correction (i.e. normalised for that group) calculated from their own total score as follows: Competitor score / High Score * 1000

Electric F5J Contest Sunday May 19, 2002

Date: Sunday, May 19, 2002

Time: 8:30 registration, 9:00 pilots meeting

Type: Electric thermal soaring

Entry fee: \$5 per class entered (includes electric raffle ticket)

Classes: Two classes will be flown. Pilots may enter one or both classes.

Sp400 Class – for stock speed 400 motors only and up to 8-cell battery.

7 cell/open Class – for any motor and cell count. (7-cell models limited to 7 cells)

Motor runs: Sp400 class will have 60-second motor run time.

7 cell models will have 40-second motor run time.

Open class models will have 20-second motor run time.

Task: The task is to climb to altitude in the allotted motor run time, and remain aloft for a total of 10 minutes. Each flight group will be scored together, man on man.

Landing: FAI landing tapes will be used, 5 points per meter.

Raffle: We will have a separate raffle of electric related items at the December awards banquet. Raffle tickets will not be offered for sale; you'll have to enter the F5J contests to receive them. Each paid entry will receive one ticket. The top three places in each class will receive an additional ticket. Attendance at the banquet won't be necessary to win.

Awards: In addition to the extra raffle ticket, we'll have some simple awards for the first three places in each class.

F3J in the Rockies May 25-26, 2002 Mark Howard - CD

MEMORIAL DAY WEEKEND 2002 - DENVER, COLORADO ---- IS F3J IN THE ROCKIES !!!!

This event will be a two-day, full-rules F3J competition.

- Friday 5/24 is an F3J clinic
- Sat and Sun 5/25-26 are competition days.

This is a beautiful time of year in the Denver area. Come celebrate springtime in the Rockies. You can e-mail me to reserve your frequency now.

**howard4113@hotmail.com or
mhoward@spaceimaging.com**

Thanks, Mark

RMSA members take note – this is a premier event that provides a lot of great publicity for our club. Come on out and fly – no experience necessary. We could also use some help - specifically we need help in running the flight line and especially towing for out of town flyers. We have some world class flyers confirmed for attendance – it should be fun.

April Club Contest CD's Report – Jim Barr

April 7th, 2002

For the last five years, the weather has cooperated each and every April contest and this year was no exception as 21 pilots greeted crisp morning temperatures...but it was short sleeve weather by noon. Special thanks to co-CD Bob Johnson and flight line help from Dr. Dan.

A total of 16 Masters Class flyers made placing well in this class a very difficult task however there was only one flyer in the novice class. All our emphasis on the new imported planes seems to have intimidated our novice flyers down to a very few. We all need to encourage novice members to attend our monthly contests - all novice pilots are scored only against other new pilots. Flying techniques and launching methods can be learned from our more experienced members during the day. Hopefully Jim Monaco's Pro-Am will get the ball rolling and next year we'll see 16 novice pilots joining in the fray.

Congratulations to Skip with a perfect score and a super job done by Bob Lewan, only 57 points off perfect for second place! Mark Howard, Charlie Miller and Bob Vixie from Colorado Springs were the top 5. Mike Verzuh did a first class job in Sportsman only 112 points off perfect and Neil Schmoker had to carry the banner for novice.

Many thanks to Jim Monaco for an excellent job of scoring and those tireless winchmasters who keep the equipment in good order. See the results below.

Jim Barr

Contest Results for:			April Club Contest								
Date:	April 7, 2002										
ID	Class	Name	RD 1	RD 2	RD 3	RD 4	RD 5	Total	Norm by Contest	Norm by Class	
	M	Master									
19	M	Skip Miller	1000	1000	1000	1000	1000	5000	1000	1000	
15	M	Bob Lewan	985	958	1000	1000	1000	4943	989	989	
20	M	Mark Howard	947	1000	933	998	1000	4878	976	976	
7	M	Charlie Miller	967	945	1000	1000	859	4771	954	954	
10	M	Bob Vixie	902	1000	937	956	948	4743	949	949	
11	M	Phil Jones	982	1000	1000	630	978	4590	918	918	
14	M	Dr. Dan	1000	503	1000	1000	974	4477	895	895	
16	M	Don Ingram	855	996	595	974	1000	4420	884	884	
13	M	Jim Monaco	1000	1000	988	981	289	4258	852	852	
6	M	Bob Pederson	1000	1000	347	928	911	4186	837	837	
21	M	Gary Lewan	722	535	943	943	909	4052	810	810	
8	M	Byron Blakeslee	982	969	488	550	1000	3989	798	798	
2	M	Bob Johnston	996	978	951	1000		3926	785	785	
17	M	Bob Moffett	1000	895	605	408	957	3864	773	773	
9	M	Rich O'Connell	922	662	704	330	511	3129	626	626	
	S	Sportsman									
5	S	Mike Verzuh	985	923	1000	1000	980	4888	978	1000	
4	S	Ali Ghaffari	1000	715	750	995	974	4434	887	907	
1	S	Joseph Newcomb	944	710	702	952	1000	4308	862	881	
12	S	Chuck Stasek	620	940	776	953	925	4214	843	862	
18	S	Wayne Hollenbeck	967	807	631	808	901	4115	823	842	
	N	Novice									
3	N	Neil Schmoker	693	141	213	460	291	1797	359	1000	

March F5J Contest Report

Lenny Keer – CD

After delaying a week due to weather, we had the first RMSA F5J contest on March 30th. 9 pilots signed up for the SP400 class, and 7 of them also flew in the open class. The winds were fairly light, but the day became quite cool and overcast by the afternoon, making the lift more challenging.

The SP400 class had some good competition, since most of the planes were pretty close in performance. The 60-second motor run allowed these planes to climb higher than winch altitude to start.

The 7-cell class and the unlimited class were combined to form the open class. There tended to be more deviation in performance here, though the 7-cell planes that were set up well were completely competitive with the unlimited ships. Several of the planes were able to reach about two times winch altitude!

Jeff Burg had brought two SP400 planes with him and chose to enter both classes with them. Since he was running 8 cells, he was only entitled to a 20 second climb in the open class. This is only good for about as much altitude as a good handlaunch. Not exactly where you'd want to start a 10- minute duration task from! Jeff did a fabulous job working the low lift to actually win two of the rounds! Well done Jeff! He didn't fare as well in the other two rounds where the lift was scarce, but still did a nice job with the odds stacked way against him.

There were a few mishaps during the day. Mark Howard had some severe interference problems with his SP400 plane and wisely decided not to fly it in the contest. Ryan O'Hara was still sorting out a new plane and withdrew after the first round. Jack Dech was flying an old Astro Challenger with a cobalt motor. It had an excellent climb rate, but unfortunately the wing was very lightly built. It was up very high and may have built up too much speed, causing the wing to fail. Sorry Jack!

Four rounds were completed by the time the weather was worsening so we stopped there. Some exclusive RMSA F5J candy bars were presented to the top 3 places in each class. Everybody who entered received one raffle ticket and the top three places in each class received a second raffle ticket. The tickets were collected for a drawing for electric related prizes at the December awards banquet. Everyone seemed to have fun and the F5J format was quite popular. As more people get involved, I expect to see an increase in attendance, and even more competitive flying.

Next F5J contest is May 19th. See the contest announcement in this newsletter for the details.

See you there!

Lenny Keer

Contest Results for:			F5J					
Date:			March 30, 2002					
ID	Class	Name	RD 1	RD 2	RD 3	RD 4	Total	Norm by Contest
S			Speed 400					
8	S	Lenny Keer	1000	921	576	1000	3496	877
13	S	Ali Ghaffari	823	1000	638	932	3392	851
14	S	Bob Pederson	747	1000	1000	610	3357	842
10	S	Jack Dech	1000	564	741	1000	3305	829
15	S	Jim Monaco	757	900	472	782	2911	730
9	S	Jim Barr	779	693	545	493	2510	629
12	S	Jeff Burg	291	390	1000	743	2424	608
11	S	Ryan O'Hara	84	262			346	87
O			Open					
7	O	Mark Howard	987	1000	1000	1000	3987	1000
1	O	Lenny Keer	1000	994	955	1000	3949	990
6	O	Jim Monaco	904	997	986	815	3702	929
5	O	Ali Ghaffari	426	617	1000	661	2703	678
4	O	Jeff Burg	1000	1000	299	231	2530	634
2	O	Jack Dech	890	667			1557	390
3	O	Ryan O'Hara						

5th Annual Pro/Am Results

Jim Monaco - CD

We had another great day for the rescheduled 5th Annual Pro/Am. It was a record turnout for this event with 11 teams formed for flying. This was the first year we have had more Amateurs than Pros show up. Setup went quickly with many people helping out. We did a pilot's meeting and selected teams by drawing out of a hat. Since we had 2 more Amateurs than Pros, We did a random assignment of the remaining Amateurs to some Pros, those Pros made up two teams, with the Pro flying once, but the score counting for both Amateur teammates. Thanks to Bob Lewan and Charlie Miller for doing double duty.

The flying got started promptly at 9:30 with one hour windows for flying. The forecast was for high winds, but the we had only light wind for most of the day. The overcast rolled in and out though and the lift conditions were quite variable, with BIG LIFT and BIG SINK depending on when you launched. Rounds 1 and 2 were 6 and 7 minutes respectively, and the rest of the rounds were 8 minutes. In some cycles 8 minutes was very tough to get.

In the middle of the contest, Bill Moxon was the victim of a conflicting frequency, and slightly damaged his plane. Several members helped him get his plane repaired, but finally discovered a stripped servo. No one had a replacement and Bill thought he was done, but exemplifying the kind of people we have in this club, Don Ingram removed a servo from the trileron of his Escape (no easy feat) and gave it to Bill to continue while he flew a 7 servo Escape. What a guy!

In the end Sportsman Ali Ghaffari (who scored the highest of any competitor) and Master Bob Moffett took top honors. Good flying guys!

I'd like to give a special thank you to the Masters flyers who attend this event and help out the newer flyers. This is the kind of thing that makes this club special and the reason that we have such a strong club at the national level. I had fantastic feedback about the event from both the pros and the amateurs. The help given to the amateurs was invaluable and MUCH appreciated. Another example was Charlie Miller who trimmed out Art Ries's plane, after which Art flew much better and had the best contest he has flown in.

Thanks to everyone that participated – see ya next year!

Jim

ID	Class	Name	RD 1	RD 2	RD 3	RD 4	RD 5	Total	Norm by Contest	Team Total	Place
	P	Pro/AM									
2	P	A - Ali Ghaffari	455.00	510.00	571.00	537.00	562.00	2,635.00	1,000.00		
1	P	A - Bob Moffett	365.00	330.00	544.00	533.00	109.00	1,881.00	713.85	4,516.00	1
6	P	C - Joe Newcomb	448.00	490.00	565.00	563.00	475.00	2,541.00	964.33		
5	P	C - Mark Howard	444.00	431.00	555.00	261.00	170.00	1,861.00	706.26	4,402.00	2
20	P	J - Bill Moxon	412.00	472.00		411.00	127.00	1,422.00	539.66		
19	P	J - Bob Lewan	448.00	430.00	572.00	574.00	567.00	2,591.00	983.30	4,013.00	3
3	P	B - Don Ingram	445.00	154.00	565.00	568.00	335.00	2,067.00	784.44		
4	P	B - Ryan O'Hara	439.00	296.00	395.00	144.00	530.00	1,804.00	684.63	3,871.00	4
16	P	H - Greg Dubbe	409.00	415.00	171.00	199.00	445.00	1,639.00	622.01		
15	P	H - Lenny Keer	447.00	497.00	129.00	573.00	561.00	2,207.00	837.57	3,846.00	5
22	P	K - Bryan Dannatell	446.00	282.00	206.00	547.00	333.00	1,814.00	688.43		
21	P	K - Jim Monaco	448.00	513.00	212.00	170.00	489.00	1,832.00	695.26	3,646.00	6
17	P	I - Bob Lewan	448.00	430.00	572.00	574.00	567.00	2,591.00	983.30		
18	P	I - Mike Verzuh	452.00	222.00	196.00		117.00	987.00	374.57	3,578.00	7
13	P	G - Byron Blakeslee	448.00	489.00	559.00	203.00	434.00	2,133.00	809.49		
14	P	G - Jason Epstein	225.00	371.00	260.00	308.00	118.00	1,282.00	486.53	3,415.00	8
9	P	E - Charlie Miller	432.00	510.00	494.00	570.00	251.00	2,257.00	856.55		
10	P	E - Tony O'Hara	356.00	414.00	90.00	90.00		950.00	360.53	3,207.00	9
7	P	D - Bob Johnston	444.00	508.00	320.00	555.00	287.00	2,114.00	802.28		
8	P	D - Jim Newcomb	406.00	190.00	195.00	159.00		950.00	360.53	3,064.00	10
12	P	F - Art Ries	137.00	94.00	229.00	92.00	152.00	704.00	267.17		
11	P	F - Charlie Miller	432.00	510.00	494.00	570.00	251.00	2,257.00	856.55	2,961.00	11

Owl Canyon Soaring Day (Rescheduled) Saturday - May 4, 2002

Weather postponed this event that is now scheduled for May 4. Please let me know if you are coming. Even if you have previously responded, I need to know if you still intend to come. Details are the same as in the previous newsletter. Plan on bringing your own lunch.

Jim

Some notes on the RMSA F5J series:

Just a clarification on how the yearly F5J standings will work. We've already flown one contest this year. We also have local contests scheduled for May 19th, June 29th, and September 14th. The June 29th contest may be expanded to a 2-day event with the preliminary rounds flown on Saturday, and the flyoff rounds flown on Sunday, and still count as one contest. There are also a couple of notable F5J contests being hosted by other clubs. The Albuquerque club is hosting one on June 22nd and 23rd. The premier F5J event is put on by the CASL club in Phoenix in October. The RMSA yearly standings for F5J will be determined by the best three scores flown. We'll follow the same guidelines as the other RMSA competition classes, by allowing one out of town score to be included. The score must come from an F5J contest spanning at least 2 days, with 20 or more entries. The SP400 class scores, and the open class scores can be from different contests. In case of a tie, points earned at RMSA contests will determine the winner.

Lenny Keer
Lenny970@AOL.com

For Sale

NEW LOW PRICES!

1. **Omega 3M** 129" RTF less rx. ~~\$495~~ \$395
2. **Multiplex Hummel** ready to fly with receiver, speed 400 with 2.3/1 gearbox, servos, battery, speed control, purple and yellow, mint condition \$250
3. **Radar kit**, speed 400, complete with battery, motor, prop, speed control \$100
4. **Butterfly speed 400 kit** with speed control, motor, battery and prop for \$100.

Tom Gressman
Home 303-979-8073
Office 303-744-3535 X3101
tom@newhorizonsccu.org

NEW LOW PRICES!

1. **Eraser (not Extreme)** 71oz. ready to fly with Multiplex Mc's in the wing and HS-85s in the fuse, 700mah battery ~~\$725.00~~ **\$650.00**
2. **Mueller Esprit**, 72 oz. Airtronics 141s, 1200mah battery, ~~\$725.00~~ **\$650.00**. Trades considered.

Bob Lewan
Days 303-884-3142
Eves. 303-655-1649
rlewan@earthlink.net

1. **RnR Genesis** – All molded – T-Tail. White Top/Red Bottom, 118" Wingspan 4 - Airtronics 141's in wing/2 - Standard servos in fuse. Excellent condition, never crashed. \$350

Bryan Dannettell
303-465-9162 Hm.
303-530-6227 Wk.
BD462@aol.com

E-Soaring

ABC's of BEC's

BEC is an acronym for battery eliminator circuit. It is a feature found on many speed controls that allows the motor battery to also power the receiver and servos. The main benefit is that a receiver battery is not needed, so the plane can be several ounces lighter. Any plane can benefit from reducing the weight, but the difference is most pronounced in smaller planes. Used within its limits, the BEC is a very handy feature. Exceeding those limits though can result in total loss of the plane, so it's prudent to have some understanding of its limitations

In simple terms, a BEC works by converting the higher voltage in the motor battery pack down to about 5 volts to power the radio. Heat is created as a result of this conversion, which becomes a limiting factor. The greater the current used by the radio, the more heat is generated in the BEC. Also, the greater number of cells in the motor battery, the more heat is generated in the BEC. BEC's are normally rated for a maximum number of cells and a maximum current rating (in amps) for the radio. The current draw of the radio is related to the number of servos used, so some BEC's use the number of servos as their current rating. If the BEC circuit is overloaded, it will overheat and shut down. This would leave the radio without power, and probably cause a crash.

All BEC's are not created equal. Some are more capable of dissipating the excess heat and can handle higher servo loads. The specifications for the BEC are a good guideline to use, but even then you need to be careful. High airspeeds, stiff hinges, binding control linkages, and high torque servos will all increase the loads on the BEC. Aerobatic models with constantly moving servos will have a greater load than a thermal sailplane with an equal number of servos that are moved much less. Sailplanes with flaps are a particular concern. In normal flight, the BEC may be able to adequately handle all the servo loads. A long descent from altitude using flaps to control speed can cause very high loads on the BEC due to the high air load on the flap surfaces, resulting in BEC shutdown and radio failure.

It's a good idea to bench test the BEC on a new plane. The worst case scenario for a BEC setup is with a fully charged battery and the motor not running. The battery would then be supplying it's highest voltage and working the BEC the most. A bench test would involve removing the prop for safety, plugging in the fully charged battery, and working the servos aggressively with the motor shut off. If the BEC passes this test for several minutes without shutting down, it's probably a safe combination to fly. The bench test won't take any air loads on the surfaces into account though.

In general, low power setups with 10 cells or less, pulling 40 amps or less, with 3 servos or less are good candidates for the use of a BEC.

Another consideration, when using a BEC, is how long it will continue to supply power to the receiver after the motor uses up most of the batter power. All BEC equipped speed controls that are intended for airplane use have a feature that will shut off power to the motor before the battery is fully depleted. This reserves enough of the battery to power the radio while you land the plane. In a sport plane, the flight will be over within minutes after running the battery down and the BEC will easily provide radio power for that period. A sailplane may continue to thermal and could stay airborne for a considerable amount of time after the motor shuts down. A decent power setup will allow several climbs to altitude on each battery charge. You can safely assume that the battery contains plenty of charge to run the radio for as long as you care to thermal on all except the last climb. On your first climb of the flight, and each subsequent climb except the last, you should be able to thermal as long as you want. If you do run the batteries down to the point where the motor cuts off, forget about thermalling on that flight and land within a few minutes to be safe.

As always, I'd be glad to offer any assistance I can in optimizing electric sailplanes.

Lenny Keer

lenny970@AOL.com

2002 RMSA Contest/Event Calendar

Date	Event	CD	Notes
Jan 8	RMSA Meeting		
<i>Jan 19</i>	<i>PPSS</i>	<i>Barry Welch</i>	<i>PPSS - Fun Fly</i>
Feb 5	RMSA Meeting		
<i>Feb 2-3</i>	<i>Southwest Classic</i>		<i>CASL Southwest Classic - Phoenix AZ</i>
<i>Feb 24</i>	<i>Snow Fly</i>	<i>Mike Fritz</i>	<i>PPSS - RES only</i>
Mar 3	Pro-Am	Jim Monaco	Fifth annual Pro-Am
Mar 5	RMSA Meeting		
Mar 10	Open*	Bob Pederson	
<i>Mar 23</i>	<i>March Madness</i>	<i>Joel Zellmer</i>	<i>PPSS - RES Only</i>
Mar 24	Elec. F5J	Lenny Keer	
Apr 2	RMSA Meeting		
Apr 7	Open*	Jim Barr	
Apr 14	Pro-Am	Jim Monaco	Fifth annual Pro-Am (new rescheduled date)
<i>Apr 21</i>	<i>Humps 'N Bumps</i>	<i>Dave Kurth</i>	<i>PPSS - Open</i>
May 5	Open*	Don Ingram	NOTE THIS IS BEFORE THE MEETING DUE TO MOTHERS DAY
May 7	RMSA Meeting		
<i>May 18</i>	<i>Mayfly</i>	<i>Austin Cleis</i>	<i>PPSS - Open</i>
May 19	Elec. F5J	Lenny Keer	
May 25, 26	F3J in the Rockies*	Mark Howard	Special National Event
<i>June 1-2</i>	<i>IHLG</i>		<i>International HL Contest Torrey Pines CA</i>
<i>June 1</i>	<i>Dech-Elec</i>	<i>Jack Dech</i>	<i>Electric Fun-Fly</i>
June 4	RMSA Meeting		
June 9	Open*	Bob Moffett	
June 15	HLG**	Shannon Bingham	Saturday event
June 23	BBQ/Fun Fly	Dr. Dan Williams	Family Event
<i>June 23</i>	<i>Summer Solstice</i>	<i>Chris Keller</i>	<i>PPSS - RES Only</i>
June 29-30	Elec. F5J	Lenny Keer	Two Day Event
July 2	RMSA Meeting		
<i>July 13</i>	<i>Memorial 2M</i>	<i>Dave Meyers</i>	<i>PPSS - 2 Meter RE Only</i>
July 14	Open*	Jim Monaco	
<i>July 20</i>	<i>Height O'the Season</i>	<i>John Read</i>	<i>PPSS - RES Only</i>
July 21	HLG**	John Kappus	
Aug 6	RMSA Meeting		
<i>Aug 10</i>	<i>Howling Coyote</i>	<i>Rich O'Connell</i>	<i>PPSS - Night Fly</i>
Aug 11	Open*	Bob Lewan	
Aug 25	HLG**	John Kappus	
<i>Aug 25</i>	<i>Dog Daze</i>	<i>Greg Tarcza</i>	<i>PPSS - Open</i>
Sept 3	RMSA Meeting		
Sept 8	Open*	Bob Rice	AKA: Colorado Challenge Cup
Sept 14	Elec. F5J	Lenny Keer	Saturday event
Sept 21	HLG**	Shannon Bingham	
<i>Sept 21</i>	<i>Soar Bash</i>	<i>Bob Avery</i>	<i>PPSS - Open</i>
Sept. 29	LSF Day	Dr. Dan Williams	Work on LSF Tasks (Saturday)
Oct 1	RMSA Meeting		
<i>Oct 5&6</i>	<i>Visalia</i>		<i>Visalia California</i>
<i>Oct 5</i>	<i>Up-Chuck HLG</i>	<i>Bob Vixie</i>	<i>PPSS - HLG</i>
Oct 13	Open*	Mark Howard	
<i>Oct 20</i>	<i>Witches Brew</i>	<i>Larry Laughlin</i>	<i>PPSS - RES Only</i>
Nov 5	RMSA Meeting		
Nov 10	Open*	Shannon Bingham	
<i>Nov 17</i>	<i>Turkey Shoot</i>	<i>Chris Keller</i>	<i>PPSS - Open</i>
Dec 8	Awards Banquet		

*Club Open points contest ** Club HLG points contest

Italics indicates major national level contests available for points and PPSS events



2002 Board Members

President:	Dr. Danny Williams	(303) 903-2291	drdandc@juno.com
Vice President:	Bob Johnston	(303) 678-5597	
Secretary:	Bob Rice	(303) 745-5269	bob.rice@tobin.com
Treasurer:	John Pearson	(303) 306-6800	JTP1006@earthlink.net
Past President:	Shannon Bingham	(303) 877-7557	binghams@boulder.earthnet.net

Member Support

<http://rmsa.homestead.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:	Jim Monaco	(303) 464-9895	JimMonaco@earthlink.net

Winch Masters

Bob Rice	(303) 745-5629	Bob.rice@tobin.com
Bob Johnston	(303) 678-5597	
Mike Verzuh	(970) 532-0638	mike.e.verzuh@seagate.com
Gary Lewan	(303) 277-1375	
Dr. Dan Williams	(303) 439-7777	drdandc@juno.com



Directions to Field

Take I-76 to exit 16. Turn left and follow the frontage road through the circle 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

Forwarding Address Requested

First Class Mail