



# Thermals

Newsletter of the Rocky Mountain Soaring Association

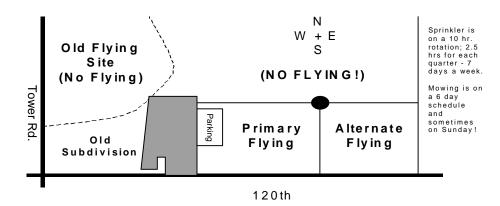
July 1998

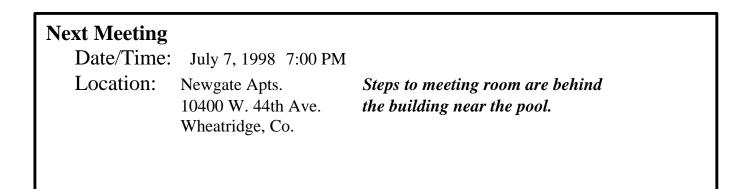
AMA Chartered Club 1245

Volume XXII Number 7

## PRESIDENT'S MESSAGE

The following information involves our movement to the new flying site, which is currently in effect. It is extremely important that we comply with all regulations of the site owner. If you have questions, please contact Jack Zika at (303) 279-1549.







- Access off 120th Avenue only no vehicles on the field at any time!
- All members should wear their name tags for identification purposes while on site.
- No tarps/tents etc. on sod field set up on the field apron only.
- No parking is permitted on the asphalt road only in the mowed rough area.
- Use the garbage can for your trash!
- All turnarounds/highstarts will be flagged!
  - A flag standard with streamers will be used at the pivot point
- Winches/highstarts should be set up beyond the first wheel tracks, thereby leaving an adequate pit area in front of the parking area.
- Each RMSA member is responsible for policing his actions and his guests while at the sod farm!
- Call the police if there is a problem of pertains to their area of authority. If not, contact the sod farm superintendants, (Mel, Craig, or Devon).
- Under no circumstances are members to be in contact with Mr. Don Schlup at any time! Bring the problem to the attention of the RMSA board first.
- Under no circumstances will a member impede the operation of the sodfarm activities!! The movement of RMSA from the primary field to the alternate site shall be under the discretion of the Scienturfic field supervisors only when conditions warrant.
- CDs will check with Craig Caldwell (Mobile Phone 598-2875 or Home 637-9894) prior to any event for possible sprinkler/mowing conflicts).

Communication is an absolute must for our events to be problem free.

#### Thanks - Jack Zika



## Firecracker Thermals – July 12, 1998 – CD Bob Rice

Registration:8:00 AM to 8:30 AMPilot's Meeting:8:30 AMFirst Round:9:00 AMGeneral Entry Fee:\$5.00Junior Entry Fee:\$3.00

Current (1998) AMA membership is required and must be shown.

Tasks:Round 1: 3 minute Simple Duration<br/>Round 2-??: 7, 9, 11, 11, .... International Duration (T1)<br/>Last round will not start after 3:00PM

Landing: Spot Landing (L4) with 25' AMA Tape

**Scoring**: Flight scores are normalize within flight group (man-on-man) with landing scores added.

Flight Qualification: Sailplane must land on sod portion of field for flight to count

- NO flying prior to the setup of winches and retrievers
- Novices limited to RES sailplanes

## July 26, 1998 HL Contest – CD Jack Zika

Entry Fee:	\$5.00
<b>Registration:</b>	8:30
Pilot's Meeting:	9:00

### Current (1998) AMA membership is required and must be shown.

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

Tasks to be announced at the pilot's meeting.



## **JUNSOAR '98 Report**

The "JUNSOAR" contest was the first one this year that we ran under the 1998 guidelines for "man on man" using three winches and retrievers as primary, with one held in reserve for pop-off situations. While we did save time by not having everyone land and re-launch, it was obvious that to make this work as intended, the pilot that pops-off on launch is going to have to get on the ground much quicker and re-launch.

To the contest itself. Because of the small area that we had to work with we were forced to set the winches and

## **JUNSOAR Results**

Date:

## JUNSOAR June 7, 1998

ID	Class	Name	Total	Norm by Contest	Norm by Class
	Ν	Novice			
11	Ν	Gary Lewan	3,903.00	780.60	1,000.00
14	Ν	Greg Merkle	3,808.00	761.60	975.66
15	Ν	Marc Monaco	3,580.00	716.00	917.24
17	Ν	Linc MacArthur	2,941.00	588.20	753.52
	S	Sportsman			
8	S	Bob Douglas	4,147.00	829.40	1,000.00
9	S	Bob Lewan	4,035.00	807.00	972.99
12	S	Jim Monaco	3,851.00	770.20	928.62
13	S	Burt Evans	3,697.00	739.40	891.49
	Μ	Masters			
1	М	Skip Miller	5,000.00	1,000.00	1,000.00
2	М	Nathan Evans	4,671.00	934.20	934.20
3	М	Dusty Miller	4,637.00	927.40	927.40
4	М	Lenny Keer	4,529.00	905.80	905.80
5	М	Jack Dech	4,428.00	885.60	885.60
6	М	Austin Cleis	4,407.00	881.40	881.40
7	М	Phil Weigle	4,154.00	830.80	830.80
10	М	Jack Zika	3,982.00	796.40	796.40
16	М	Bob Rice	3,151.00	630.20	630.20
18	М	John Pearson	2,718.00	543.60	543.60
19	М	Matt Sheldon	1,766.00	353.20	353.20

retrievers facing south which made for down -wind launches all day. After the first round it became necessary to move one of the landing tapes as it's location made it very difficult to keep your sailplane in view as the ridge top was approached. In spite of these problems we were able to fly five rounds of precision duration before the wind put an end to flying for the day.

Skip Miller did a great job of coping with less than ideal conditions and finished first overall. Bob Douglas finished first in Sportsman class, while Gary Lewan was first in Novice.



## **Father's Day Funfly**

What a glorious way to break in a new field. Moderate temps, light breezes,good companionship, a multitude of aircraft of various disciplines, and FREEfood and sodas (!). Wow. I hope everyone enjoyed it as much as I did.

We had 26 people there with at LEAST 30 airplanes ranging from a couple of Essences (Essens i ') to a beautiful scale ASK-21 owned by David West. In the Foam class we had a couple of TG-3 s and my own evil, diabolical Avro Vulcan. For the BIG airplane fans, Mark Howard had his Grande Espirit, Jim Barr his Sailaire and I had my Magnum 12. HLG ships were in abundance with a Maple Leaf, Aspen Leaf and every other kind of leaf as well as the standard Climax's, Monarchs and whatever's.

Lenny Keer put on an impressive display with his electric Avocet. What an airplane. Electrics have come so far since I scratch built one from a set of plans and powered it with a Leisure 05 with a 6x3 prop and 6 cells. I don't know what Lenny's setup was but it was AWESOME. I gotta get me one of those. On occasion we had 15 or 16 aircraft in the air at the same time. Ain't 50 channels wonderful. If I had it to do over again I would set up time slots for the various types of aircraft for launching. We didn't have any problems but the field and air space was a little crowded at times. Martin Doney, an RMSA member from Baldwin Mich (!) even made the 1400 mile trip JUST for the funfly. Hope you had a good time Martin. But the best part was the families. It's nice to see the wives and the kids, whoops, sorry, I meant young people at the field. Not just watching but taking part in the flying as well. Trouble is, after one or two flights these guys (and girls) are showing the old farts how to fly. Man, I wish I had the reflexes, eyesight and coordination some of the youngsters showed.

About the only downside to the day was David's ASK-21 was lost as it came off of tow. She went in hard but the only real damage seemed to be a cracked fuse. It looked like it can be repaired fairly easily. On the upside, Jack will be glad to hear, another incident has made me decide to retire my "Jack-seeking" Avro. I'll just fly it when no one else is around, or out at Bear Creek from now on. The bungee launching system is just too dangerous to use when Jack is anywhere in the same zip code. Come out to the funflys next time. We have a good time, it's low key and actually more of an ice cream social type of deal (now THERE'S an idea). If you don't enjoy the contest circuit at least come to these. We had a ball. Jack Zika and Jim Butler, I can't say enough thanks for the time you guys spent getting spattered with grease. The hamburgers and

hotdogs were grilled to perfection. THANK YOU."By the way, who DID get the one you dropped on the ground Jack?

Following are some pictures from the event - I hope they come out OK... **Bob Douglas** 



**David West's Beautiful ASK-21** 



The Infamous Bob Douglas Avro Vulcan



Jack and Jim our dedicated chefs...





The air and the grills were very crowded!!

## Hand Launch Glider Contest #2 Report - May 31

The day was met with 6 HLG enthusiasts who were ready to test Mother Nature and the thermal gods. The tasks to be flown turned out to be as challenging as the thermals or lack thereof. There were three tasks that were repeated for a total of six flights. All tasks were flown man-on-man and after an initial random draw all other flight seedings were based on points accrued in the previous flight.

The tasks were as follows:

- (1) Ten launches to make five 2-min. flights; best 5 flights count.
- (2) Ten launches to make two 5-min. flights; best two flights count.
- (3) Three launches within the time window to make a ten minute flight; last launch counts!

All the tasks were flown within a ten minute flight window.

It turned out to be quite a challenging format that tested both skills and tactics (especially #3) of the contestants.

We were tested by Mother Nature with her feast or famine thermal formations plus winds of 13 to 19 MPH!

Phil Weigle flew both an Ariel and a Pixie; Jim Barr an Illusion: Bill Beggs a Monarch D; Shannon Bingham a Chrysalis; new member Joel Cavan a Monarch D and Jack Zika flew a Maple Leaf.

Bill Beggs had a bit of bad luck with his Monarch D wing failing again at a previous folding spot - but with some

skillful repairs, was back up in the air and did well. Joel Cavan flew his first HLG contest ever and look where he ended up. Please welcome him to RMSA.

NAME	RD1	RD2	RD3	RD4	RD5	RD6	TOTAL
Jack Zika	1000	1000	1000	607	713	1000	5320
Phil Weigle	1000	664	485	1000	1000	934	5083
Joel Cavan	418	1000	0	1000	959	761	4138
Bill Beggs	565	259	600	861	1000	297	3582
Shannon	630	329	0	772	411	1000	3142
Bingham							
Jim Barr	475	169	0	671	116	413	2844

A special thank you goes to all the contestants, timers and the field task timer who made my first CD experience a very pleasurable one. Hope to see more of you HLG chuckers out for HLG contests #3 and 4.

Jack Zika

## Hand Launch Glider Contest #3 Report - June 28

This was the first contest at the new field. Eleven pilots gathered for a day of fun and sun. There was plenty of both. The day was hot with the temps rising into the low 90's by the afternoon. A 5 to 10 mph breeze made it tolerable, but also kept the thermals moving. Several pilots hitched rides on passing thermals, taking them up and out, just to have their flight disqualified when they couldn't get back to the field boundaries.

Unfortunately, there was one mid air collision, sending both planes to the ground. Tom Gressman, was able to continue the contest with his back-up plane, but it was the end of the contest for Phil Weigle. The sprinkler passed through the flying area during the contest. It wasn't much of a problem though, as we just relocated to the back side of it and continued the contest. There was a good assortment of planes represented, with the poly ships being the most popular.

The top honors were shared by two completely opposite planes. Skip was flying a full house, aileron, flaps, 4 servo, all glass ship called the Epsilon. Jeff Burg proved that the contest could also be won using a rudder and elevator, balsa and monocote Illusion. They both did a great job showing the rest of us how its done. Colpar Hobbies generously donated several gift certificates to the club for the contest awards.



The complete results were:						
NAME	PLANE	SCORE				
Jeff Burg	Illusion	4326				
Skip Miller	Epsilon	4326				
Tom	Climax	3905				
Dusty Miller	Monarch	3790				
Jack Zika	Maple Leaf	3488				
Charles Miller	Monarch	3307				
Lenny Keer	Monarch	3026				
Bob Lewan	Illusion	2868				
Gary Lewan	Osprey	1503				
Phil Weigle	Climax	1452				
Jim Barr	Illusion	1287				

#### Lenny Kerr

## Minutes - June 2, 1998

Meeting called to order at 7:20PM by Prez Jack Zika Officers present: Jack Zika, Bob Rice, John Pearson

Jack gave a description of his trip to Hawaii. No flying but lots of beautiful scenery.

Old Business: Discussion of the field problems at the May open contest. Although the club was blameless, club members should not ask the field crew to do anything. Jack & Mark Howard to meet with Don Schlup about moving to the SE corner.

New Business: There was a lively discussion with regard to the contest rules concerning changes made by the Contest Board and whether the board had the right etc., etc.. John Pearson moved that the rules for 1998 remain as currently published. Revisions will be considered for the 1999 season. This was approved.

Raffle: (\$120 in the black for the year) Xmitr Case: Dwight Compton Drill bit set: Tracy Cochan Reel: Mac MacAuther

Meeting adjourned at 8:30PM

Mark Howard did show & tell on his BUHLG. Respectfully submitted,

#### **Bob Rice**

## **RMSA E-mail IDs**

Here is a list of the RMSA members that have notified me of their e-mail Ids. If you would like to be on the list, simply send me a note at bobr@tobindatag.com. If you would like to receive an electronic copy of the newsletter in Adobe Acrobat format (the reader is free from Adobe at http://www.adobe.com) then send a note to Jim Monaco at jmmonaco@us.ibm.com. **Bob Rice** 

full name	E-Mail
Wayne Angevine	angevine@terra.colorado.edu
Bill Beggs	billbeggs@bbcyber.com
Shannon Bingham	binghams@boulder.earthnet.com
Tracy Cochran	tcochran@idcomm.com
Bob Douglas	silentflyer@uswest.com
Mark Howard	markho@tobindatag.com
Charles Howerton	howerton@rmii.com
Lenny Keer	lenny970@aol.com
Dr. Volker Klein	reklovusa@aol.com
Jim Monaco	jmmonaco@us.ibm.com
Michael O'Hearn	mjohearn@ccgate.hac.com
Robert Pederson	bpederso@oneimage.com
Bob Rice	bobr@tobindatag.com
Gabriella Sterne	srllc@world.att.net
Bill Thomas	thomasb@ruraltel.net
Philip Weigle	philip.weigle@mcione.com

#### Spirit 100 For Sale!!!

Great Planes Spirit 100 inch. Ailerons and flaps SD7037. Perfect condition. Great aileron trainer. \$90.00. W/O servos.

Bob Lewan 303-655-1649, jdicke2274@aol.com

#### Spectrum For Sale!!!

Open Class Spectrum White fuse/red rudder. Wings and stab laquered on top with black bottoms. 2-nose cones(1 with teeth and 1 without) weighs 65 oz. 6 servos--JR 341 for ailerons, Hitech HS205mg for flaps, Airtronics 141 for elevator and 401 for rudder. New 600Mah battery. Excellent condition Never crashed . \$350

Jeff Burg (303)627-9895 after 2pm or E-Mail JAB6658@aol.com



## A New and Different Aileron/Flap Linkage

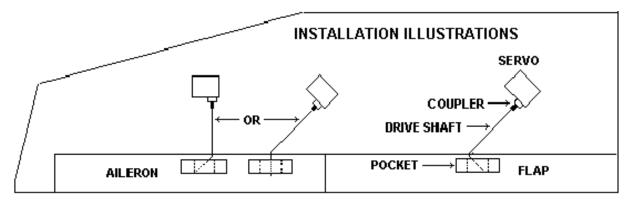
Here is some information from the internet about a unique method of surface linkage.

#### ALL-INTERNAL ROTARY DRIVER SYSTEM FOR MOVING SURFACES by Harley Michaelis. AMA 3234, LSF 023 (edited as of 5/28/98)

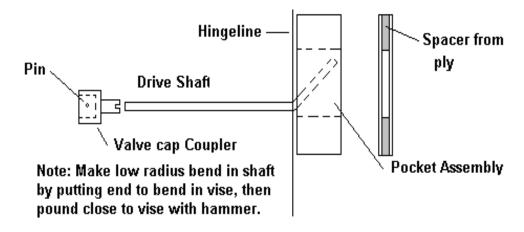
This system eliminates any need for horns, screws, nuts, backplates, clevises, keepers, straight pushrods, tube-in-tube pushrods, pull-pull cables, bellcranks, exit guides, etc. Nothing mounts on a surface to get ripped off. The mechanics do not contribute any flutter-causing slop. If servos center well and if hinges, etc. allow free movement, there will be a well-defined return to neutral from either direction of deflection. The system works in most any sized R/C aircraft, powered or unpowered, where separate servos are used for ailerons, flaps, or where tail pieces will accommodate a servo and leads.

At the present time, a well-known manufacturer of R/C hardware has given me verbal confirmation that they intend to produce a commercial version, but without indicating any time frame. In the meantime, any modeler with ordinary tools can make the parts and install in any kind of airframe as I do.

Note in the sketch below that the essential items as I make and install them are (1) a Coupler that mounts over an output gear, (2) a Pocket in the surface and a (3) Drive Shaft between.



As the shaft rotates, the surface deflects. The shaft slides fore-aft within the Pocket to <u>avoid any binding</u> due to the Pocket not being in line or in plane with hinges. A 90 degree bend is used for flap and 45 for other applications. These provide deflections to those amounts, if nothing else limits motion. Pockets need not be laterally centered in a surface. More inboard locations keep mass more centered in the airframe and puts servos where a wing is usually thicker for easier mounting, especially in thin wings. The sketch below shows the elements closer to full size. The Coupler is made from a solid brass "screwdriver type" valve cap. A thin-walled shell will not work as a hole has to be drilled through the skinny end in which to securely bond the shaft. Tru-Flate item 47-103 found at independent auto supply retailers is just right. Using epoxy, a socket will be custom-splined to fit the output gear. A 3/32" drive shaft works for medium to large airframes. Best material is Stainless Steel Filler Rod found at welding suppliers. 3/32" and 1/16" diameter are available. HLG guys could use smaller music wire.





**COUPLER FABRICATION:** If using other than a 3/32" shaft, the hole can later be reduced with bits of brass or aluminum tubing, CA'd. Coat the servo case and output gear with a release agent such as PVA, Pic Slicker, paste wax, Chapstick, etc. Fill the output gear screw hole with wax. Round the end of a waxed piece of 4-40 rod, etc., so it can just enter the hole. Run the valve cap onto the rod. With the rod end barely entering the screw hole and the cap touching the case, tape the cap to the rod. This centers the cap over the gear. Fill cap about 2/3 with quick epoxy, avoiding a bubble. Press cap to case, hold a few minutes, and set aside to cure well. Pull off, twist out rod and clean up the servo, etc. Drill hole with #41 bit to make large enough so CA+ can nicely fill around the real rod when later installed. **IMPORTANT!** Reapply wax, etc. to the output gear to avoid it later being bonded with CA to Coupler.

**POCKET:** The pocket is made from the thinner (about 1/32") Formica, etc. laminate used to face vertical cabinets. Find free samples at building supply. Use non-textured surfaces, putting smooth side inside. Spacers are ordinary aircraft ply, uniformly sanded to give a snug fit to the drive shaft. Thin CA glue bonds parts. Make pockets 1/2" x 2", with spacers 1/2" square. For use with HLG's, go smaller.

Locate servos as close to the hingeline as practical, to keep shafts short to minimize flex. Then locate pockets laterally, setting front edge <u>back 1/16</u>" from the planned hingeline. Remember, although the Pocket may not be aligned with hinges, the shaft slides fore-aft in it to avoid bind. However, where possible, place Pocket near the top surface if top-hinged or near the bottom if bottom-hinged. In foam cores, make a snug rectangular opening and press Pocket flush with appropriate core surface. Fill over or under to other core side. For sheeted frame surfaces, mount Pocket inside the sheeting.

**FOAM CORE STRUCTURES:** On core bottoms, before skinning, outline servo with Coupler attached. In neutral the notch in the cap should be accessible. Well must have 1/4" or so clearance at Coupler end, so it can be pried off, if needed. If bagging, seal <u>anywhere</u> epoxy could meander. Pocket should be carefully filled with waxed soft balsa. Prepare templates (an outline on mylar, etc.) that show precise servo locations and well cover perimeter, relative to reference points on the structure. If skin is removed to 1/8" or so beyond well perimeter, the piece can be taped back flush as a cover. <u>Be sure</u> you have reference marks, too, to know where to cut the hingeline to miss the Formica. After skinning, use template to locate where skin is to be cut. Router the well to allow access to the Coupler. As needed, angle the servo to align the axis of the shaft with the axis of the Coupler. This may require tilting relative to the wing underside. Easiest way to mount is to remove ears and have the well snugly fit the servo. Secure with dabs of silicone adhesive, either around the edges, or on the bottom on a base. If the case and base are waxed, the silicone will hold for operation, but release if the case is pulled on hard enough.

**DRIVE SHAFT TUNNEL:** With aileron/flap removed, use a long drill bit, etc. to work a tunnel under the skin. A scrap of plastic tube (small straw, etc.) can be epoxied into the tunnel to act as a loose bearing for the rear end of the shaft. Once in the Pocket with surface hinged, the shaft is vertically stabilized. A little side play does no harm if the bent end is nicely centered in the slot. Clear the Pocket opening of any waxed fill put in before bagging.

**DRIVE SHAFT LENGTH:** When ready to hinge, size so the bend point lays just ahead of the hingeline. This and the 1/16" pocket setback avoids <u>prying</u> as the surface moves. Size to not enter cap much beyond its wider bottom if you intend to run a pin through. Mark shaft relative to cap end as a visual depth guide. **SHAFT BONDING:** Coat 3/8" or so of shaft end with fresh, slow CA, run in and out of cap to spread well, but avoid excess that might run to gear. Also dab CA in the notch. Position shaft to give neutral aileron, etc. Allow an hour or so to fully cure. Thorough coating/curing gives incredibly strong bond. Unless you forgot the wax and bonded cap to gear, cap can be pried off and repositioned to neutral. Drill a 1/32" hole through cap and gear for a pin. Alternatively, put a dab of silicone on the gear.

**RUDDER APPLICATION, etc. if surface is thick enough for a servo:** Mount servo close to hingeline. Shaft will be short. Center Pocket if center-hinged.

**RETROFITTING IN ARFS:** As needed, reshape wells to install servos. Route leads into any precut grooves, where possible. Fill old well gaps with scrap foam. Remove enough skin beyond filled-in areas so old and new foam can be bridged with new skin. Level new foam to the old. Attach new skin with epoxy, bagging when possible . . . or otherwise smooth, fill and paint. If film is used, cover with matching or contrasting color, trim material, etc. Work a tunnel under skin. Remove foam from surface to mount Pocket. Seal around it to avoid plugging opening with epoxy.

**PLUG-IN-TIPS:** See website how handled on the GENIE. I will e-mail that part of actual building text if you ask for it. e-mail me at hmlsf023@bmi.net. **MISC:** Occasionally apply a little powdered graphite inside a slot. Occasionally blow out to keep clean. Debonder will slowly soften CA to remove shaft. Tape hinges work very well for flaps and ailerons, but apply a few "Z" hinges at either end first.



## 1998 RMSA Club Standings

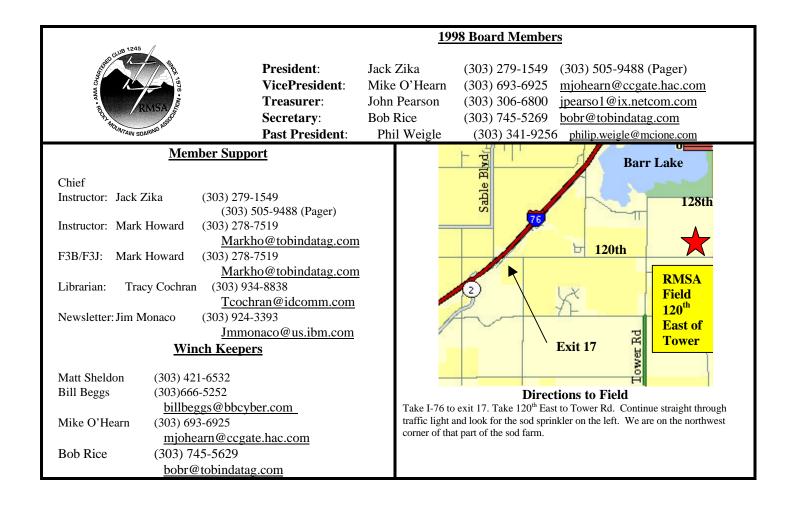
MASTERS	Mar	Apr	Мау	June	July	Best 6	Place	97 Points/ Wins	98 Points/ Wins	Total Points/ Wins
Keer Lenny	1000	637	984	906		3527	1			
Miller Skip		1000	996	1000		2996	2			
Howard Mark	801	991	988			2780	3			
Miller Dusty		850	1000	927		2777	4			
Zika Jack	637	975		796		2408	5			
Pederson Bob	654	801	655			2110	6			
Sheldon Matt	777	926		353		2056	7			
Barr Jim	567	766	262			1595	8			
Weigle Phil	759			831		1590	9			
Evans Nathan				934		934	10			
Padilla John	899					899	11			
Dech Jack				886		886	12			
Rice Bob				630		630	13			
Pearson John				544		544	14			
SPORTSMAN										
Douglas Bob	977	1000	792	1000		3769	1	11/1	8/2	19/3
Monaco Jim	1000	809	810	929		3548	2	7/0	5/1	12/1
Rice Bob	428	878	960			2266	3	18/3	2/0	22/3
Lewan Bob			846	973		1819	4		3/0	3/0
Miller Charlie			1000			1000	5		0/0	3/1
Port Don	917					917	6	10/3	1/0	11/3
Burt Evans				891		891	7			
NOVICE										
Lewan Gary	615	860	899	1000		3374	1	6/1	6/1	12/2
Monaco Marc	700	748	1000	917		3365	2		6/1	6/1
Miller Charles	866	1000				1866	3		5/1	5/1
Mac Arthur	327	495		754		1576	4	9/1		9/1
Lewan Robert	482	695				1177	5	6/2		6/2
O'Hearn Mike	1000					1000	6	4/1	3/1	7/2
Merkle Greg				976		976	7	5/0		5/0
Bingham Shannon			931			931	8			2/0
Beggs Bill	246					246	9			
Lichstein Gib		207				207	10			
West David						0	11	3/1		3/1
Curtis Matt						0	11			
Kentner Matt						0	11			
Delponte Gino						0	11			
Butler Jim						0	11			



# 1998 Contest/Event Calendar

Date	Туре	CD	Notes
Jan 6	RMSA Meeting		Newgate Apts – See Cover
Feb 3	RMSA Meeting		Newgate Apts – See Cover
March 3	RMSA Meeting		Newgate Apts – See Cover
March 8	RES	Bob Douglas	Restricted to Rudder/Elevator/Spoiler controls only
March 15	Open*	Mark Howard	
April 7	RMSA Meeting		Newgate Apts – See Cover
April 19	Open*	Jim Barr	
April 26	HL**	Phil Weigle	Points towards club HL championship
May 5	RMSA Meeting		Newgate Apts – See Cover
May 17	Open*	Jim Monaco	
May 31	HL**	Phil Weigle	Points towards club HL championship
June 2	RMSA Meeting		Newgate Apts – See Cover
June 7	Open*	Phil Weigle	
June 21	FunFly	Bob Douglas	Fathers Day Family BBQ and Fun Fly
June 28	HL**	Lenny Keer	Points towards club HL championship
July 7	RMSA Meeting		Newgate Apts – See Cover
July 12	Open*	Bob Rice	
July 26	HL**	Jack Zika	Points towards club HL championship
August 4	RMSA Meeting		Newgate Apts – See Cover
August 9	Open*	Jim Monaco	
August 16	LSF Tasks	Bob Douglas	LSF Tasks and Fun Fly
August 23	2 Meter *	Mark Howard	Restricted to 2 meter models
Sept 1	RMSA Meeting		Newgate Apts – See Cover
Sept 13	Colorado Challenge Cup*	Matt Sheldon	Open Class
October 6	RMSA Meeting		Newgate Apts – See Cover
October 11	Open	Bob Rice	
October 25	Fun Fly	Bob Douglas	
November 3	RMSA Meeting		Newgate Apts – See Cover
November 8	RES	John Pearson	Restricted to Rudder/Elevator/Spoiler controls only.
December 1	RMSA Meeting		Newgate Apts – See Cover
December 6	Awards Banquet		Annual RMSA Family Banquet with Awards – location TBD

 Indicates contest included in club Open Championship points
Indicates contest included in club HLG Championship points Shaded events are historical





**Rocky Mountain Soaring Association** 

First Class Mail

Forwarding Address Requested