

Thermals

Newsletter of the Rocky Mountain Soaring Association



April 2000

AMA Chartered Club 1245

Volume XXIV Number 4

President's Message

Happy April Fools -

I hope April finds you looking forward to the soaring season - I certainly am. February and March have already been active soaring months with our own March unlimited and pro-am contests and one national contest already complete. The annual F3B Desert Classic was held the first weekend in March in Eloy, AZ and was well attended by RMSA with Jon Padilla, Skip Miller, Lenny and Barb Keer, Mark Howard and Shannon Bingham making the trip down to ... well, the middle of nowhere. We all flew well and I certainly learned a lot. The wind and weather was quite intense at this contest with winds gusting above 25 during speed and distance runs. There were some exciting launches and the key phrase for the event was "get some lead in your sled"! Mark and Shannon will certainly remember this contest and the "food poisoning contest" for many years to come. Stay away from both the chicken fried steak and the water in central Arizona.

The great RMSA RES debate was settled for the year at the March meeting. With ten members present at our

new meeting site at Heliport Hobbies (thanks Buz) the following proposal was adopted 6 - 4 by a club quorum:

RMSA RES Contest Series - Alternative 4

A third RES contest shall be added to the contest schedule, tentatively, _____. The best combined score of the three of four RES events including one national or PPSS event shall be used to select an RES series champion and a second and third place pilot. Trophies for the individual contests shall be at the discretion of the CD. Trophies shall be awarded for the RES series top three at the end of the year. RES model requirements shall be identical to the RES rules for the AMA/LSF Nationals.

One other action was taken at the March meeting. The suggested standard trophy approach was discussed by club membership and adopted by those present. Beginning with the April contest, a "perpetual" 9" x 12" plaque will be presented to each of the top three in each class and 1" x 3" individual award panels will be presented at each contest. This approach will allow more contest revenue to be diverted to maintenance of club equipment and programs.

Next Meeting:

Date/Time: April 4, 2000 - 7:00PM

Location: Heli Port Hobbies
1400 W 70 Ave
Denver CO 80221-7023
See map in March Newsletter



Rocky Mountain Soaring Association

Finally, the "Real Balls" fund drive has been a success with the majority of frequent contest flyers contributing \$10 each to the cause. The club officers will be finalizing a purchase and installation plan soon. Thanks for your donations and support. Any late contributions will gladly be accepted. Mail to Shannon at 1750 30th St., #424, Boulder, CO 80301.

I'm very proud of what we have accomplished in the past two months. We have made difficult decisions regarding RES rules, bought a banner, gone to national contests, smoothly run our local contests, raised money for "Real Balls" and adopted a new approach for club trophies. When things are going this well, I usually look around for someone to step off the curb into an on-coming bus. Hopefully that will not happen.

I was pleased with the way that we adopted the new parking scheme at the Pro-Am contest, but was very aware that we were being watched a bit by the white trucks. Lets be really careful to abide by rules pertaining to the club field and spread that word to new club members and guests. Also, with F3B in the Rockies only two months away, volunteers are needed to assist Mark Howard in efforts to run this contest. Those of you who are interested and able to help, please give Mark a call and pitch in.

Finally, I'm looking to keep the club meetings VITAL. We have taken care of the difficult club business early on in the year and I'm concerned that we need to have some club programs available. I would like to ask for some volunteers to come and present to the club on a variety of topics. Here are some ideas:

1. How to CD a contest
2. Contest strategy
3. Principles of F3B - timing issues, planning for "F3B in the Rockies"
4. Principles of F3J
5. Zagi 400 building - show and tell
6. Radio programming - show and tell
7. Endless Lift 2 - I've got a TV, VCR and tape
8. Electric slow and park fliers
9. RES - pushing the rules, ruling the sky
10. All about servos - show and tell
11. Winch maintenance - bring all 5, show us what to do (Maybe "Real Balls" install?)
12. Writing the club pres / vice pres newsletter address - how to keep it short and sweet

Let us know if anyone would like to take one of these topics or suggest another.

Cheers, Jim and Shannon.

April Club Business

Real Balls Discussions – The “Real Balls” campaign has gone very well, now we need to assess our status and plan for the procurement and installation of them.

For Sale

Skyhawk 3 meter T-tail full house sailplane. Mark Allen design from Slegers International. This is the deluxe kit with gel coat (white) fuse, carbon canopy, molded stab, and Skorpa pressed obechi wings. Kit cost \$420. Near new condition. Great thermal ship. Set up for JR, but can be easily changed. \$440 with 6 new JR 341 servos and switch. \$300 w/o.

Byron Blakeslee 303-738-1104
byblake@worldnet.att.net

TG3 - Aileron version. Good slope plane/aileron trainer. Futaba 133's in wings. Standard servos in fuse. With servos and battery - no receiver -- \$75

Airtronics Infinity 660. 4 model memory + Sailplane/Heli/Airplane modes. Good condition. CH40. Recent battery pack. W/O receiver. \$125

F3B Eagle - 6 servos (141's) /battery/switch included. Nice condition. Add your receiver and you are ready to fly. \$700

Mark Howard
303 278-7519 H
303 254-2099 W
303 669-2645 C
mark_s_howard@msn.com
mhoward@spaceimaging.com

Mystery Ship - 1100ma battery pack, 2 Hitec 205s for flaps, 2 Hitec 80s for ailerons, 2 JR 517s for elevator and rudder. Color is trans. yellow with red trim with a yellow fuse. \$300.00

Oly II - 700ma battery pack, 2 JR standard servos for elevator and rudder, FMA 100 for spoilers Color is trans. yellow with black wingtips, trans. red tail feathers, yellow fuse. \$150.00

Bob Moffett (303)0426-0328 after 4 PM on weekdays or anytime on weekends
E-mail RTM0005@aol.com



Rocky Mountain Soaring Association

Spring Thermals Sunday April 9, 2000 CD Jim Barr

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

Current (2000) AMA membership is required and must be shown when registering.

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

Winchmasters: Please be at the field by 8:00AM. If you are unable to attend please contact the CD to arrange to have your winch/retriever available

Tasks: T1 International Duration – duration set according to conditions and turnout.

Landing: L4 Spot Landing with AMA Tapes.

RMSA HLG Sunday April 16, 2000 CD Shannon Bingham

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

Current (2000) AMA membership is required and must be shown when registering.

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

Tasks: To be announced at the pilot meeting



Treasurer's Report

Checking:	\$1391.31
Savings:	\$691.73
Cash:	<u>\$103.98</u>
Balance:	2187.02

John Pearson

Volunteer CDs Found!!

Thanks to Rick Housden who has volunteered to run our unstaffed RES contest, and Shannon Bingham who stepped in to take control of the April HLG event. It is the great support of our members that continues to make RMSA a vibrant, active and FUN club.

Calendar Updates

Note that I have updated the RMSA calendar at the end of this document and have included all of the Pikes Peak Soaring Society events. This is for those of you that wish to attend other nearby soaring contests. Pikes Peak is a great club with plenty of good flyers. It's often fun to go somewhere else and see how you fare. Note also that you can include results from one PPSS event in your year end standings.

Why Servos Buzz...

Following is an article from the Internet Soaring Exchange I thought was interesting. Thanks to Paul Klissner for the editing.

Y.K Chan wrote a great technical description of servo issues related to servo buzzing. I had to re-read it a few times in several places, due to language translation issue. I figured it could use a little editing. So, out of respect for the caliber of the information, I edited the post (without permission). I think the post is excellent, and hope the edited version might be more readily understood by a wider audience if I worked on it a little. I was forwarding Mr. Chan's write-up* to a friend, which is what got me started. Note: All of the technical info comes from Y.K Chan., I only paraphrased it.
-Paul

WHY SERVOS BUZZ

There are two causes to most buzzing problems associated with wing servos. Some servos are developed using 6V instead of the common real world application of 4.8V running down one meter of extension cable. The published servo torque specification is the static torque recorded at the initial degree of servo travel (under stall conditions) for a displacement input greater than 5 to 10 degrees. However, the torque at the final degree is not published (probably because its a shy number). Therefore, toward the end of the servo travel, the torque may be weaker and cause the servo to buzz when less-than-significant physical resistance is met.

The other angle regarding servo buzzing is what goes inside the electronics. For example, for an input of 10 degrees, the motor transistors put out a steady voltage at 0 degrees, move to 10 degrees and stop (as designed). What happens at the final degree or two, however, is the motor transistors pulse supply the motor and let the motor core "semi-free-wheel" into final position.

While pulse/free-wheeling through the final few tenths of a degree of target, the pulse-width gets reduced to zero. The design works perfectly... at least with the reference voltage used in the development laboratory. But in reality the lab voltage is seldom attainable down the wingspan with a 4.8V pack in a real R/C glider.

In the typical field application, as the motor input voltage drops, the result is lower motor RPM, which is only able to drive the motor (and thus the rotate the feedback potentiometer) somewhat short of the target point.

Although the sensing electronics do signal to the motor transistors to pulse more, the pulse voltage is too shallow to drive the motor core in overcoming its own static field. Such open loop state is responsible to the buzz of the servo motor, under a refresh rate of 50 Hz.

The manufacturer can't/won't do anything about this problem. It is up to us to upgrade our supply voltage to compensate for the voltage loss down the wingspan.

This is why I use a 5-cell solution for wing servos.
YK



Rocky Mountain Soaring Association

March Contest Report Lenny Keer, CD

March 12th marked the start of the 2000 contest season for RMSA. The weather was somewhat intimidating with overcast skies and snow falling in some parts of town. The day did steadily improve and warm up and wasn't too bad for March. The format was five rounds of man on man duration using five winches. We used the standard AMA landing tapes. The winch lines were all brand new and we did have a couple of breaks until we found the weak spots.

With a number of RMSA members going to the Southwest Classic thermal contest in February, and the Desert Classic F3B contest in March, there was little evidence of the "early season rusty thumbs" syndrome. The top flyers were able to find sufficient lift to make their flight time and never strayed too far from the money end of the landing tape. It seems that the competition gets closer every year and we all benefit from the exposure of having some of the country's best pilots to fly with/against. Congratulations to Skip Miller for his perfect 5000 score! Dusty Miller was second master and Charlie Miller was third. In Sportsman, Phil Jones took the top honors, with Gary Lewan edging past Kevin Moffett for second place. Novice class had only two entries and Matt Curtis flew an excellent contest to beat out Randy Cheshire.

Masters	Plane	Score
Skip Miller	Emerald	5000
Dusty Miller	Eclipse	4976
Charlie Miller	Xantipa	4887
Byron Blakeslee	Xantipa	4792
Don Ingram	Emerald	4749
Bob Moffett	Eclipse	4723
Mark Howard	Eclipse	4652
Jim Monaco	Emerald	4644
Jon Padilla	Scar	4587
Bob Lewan	Eraser	4568
Jim Barr	Sailair	4427
Lenny Keer	Emerald	4300
Jack Zika	Skyhawk	3819
Bob Rice	Thermal Eagle	2929
Sportsman	Plane	Score
Phil Jones	Hera ?	4781
Gary Lewan	Unknown	3562
Kevin Moffett	Pulsar	3548
Marc Monaco	Pelican	3284
Bob Hatch	Urge	2582
Rick Housden	Aquila	2248
Novice	Plane	Score
Matt Curtis	Bird of Time	4203
Randy Cheshire	Unknown	2103



Rocky Mountain Soaring Association

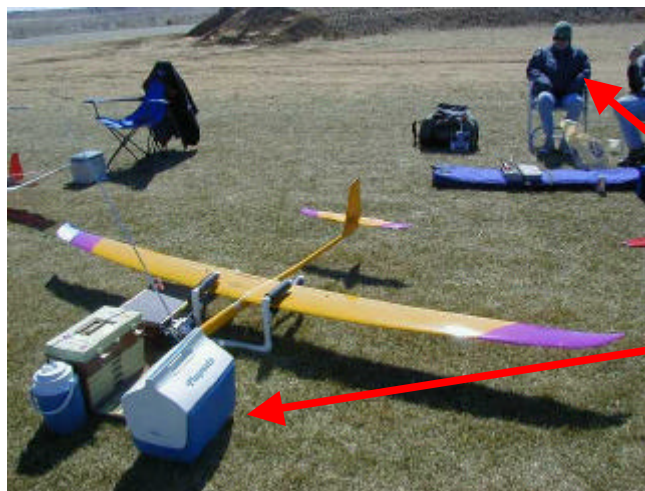
Pictures from the March Contest



Skip nails another landing!



Lounging around the FlightLine



Which one is the Playmate?

Wanna see John Padilla's SCAR?



Rocky Mountain Soaring Association



Hmmm. Someone Launching.. Can You guess?



No need to guess here – Jim Barr and the Sailable



And a final look at the flightline as the weather cleared



Rocky Mountain Soaring Association

3rd Annual Pro/AM Results Jim Monaco CD

The 3rd Annual Pro/Am Soaring Contest was held on March 19, 2000. As is usual with March weather, the forecast did not look good. 30mph winds from the west followed by deteriorating conditions throughout the afternoon was on the agenda. Some folks even called Saturday night to see if we were still on for Sunday! I told them what we do for all of our contests, show up and decide whether to take our chances with mother nature. Although Sunday dawned cool and overcast with a light southwest breeze – we decided to go ahead and see how far we could get. The southwest wind posed a setup problem – we needed to drag all of our launching stuff out to the middle of the field and launch back towards the cars. It took a number of trips, but finally at 9:30 were setup and ready to go. 17 flyers showed up with a good mix of Pros and Ams. With an odd number of flyers we needed to do something to make even two man teams, so I drew one Amateur to fly twice each round with different Pros. Rick Housden got a lot of flying in! My intention was to keep this a relaxed, easy contest, so I just defined open flight windows of about 45 minutes – fly when you want as long as you launch before the end of the window. I also allowed practice flying after your scoring round was completed, and a few folks took advantage of this. As the morning progressed the weather continued to improve with the sun coming out, temperatures rising and the wind remained light and generally out of the west. It turned out to be a great day! The lift was fickle, with big lift and big sink. Some flyers simply chose poor times to launch and got clobbered by the sink. Poor Jack Zika seemed to be always in the crappy air. In the end Team Lewan and Team Bingham came out First and Second with Team Howard close behind in third. Fun was had by all and that is the main objective. See ya'll next year - *Jim*

Pro/Am 2000 March 19, 2000

Class	Name	RD 1	RD 2	RD 3	RD 4	RD 5	RD 6	Total	Norm by Contest	Team Totals
J	Team Lewan									
j	Bob Lewan	451.00	440.00	513.00	506.00	395.00	333.00	2,638.00	941.47	4,732.00
j	Jim Butler	359.00	228.00	393.00	294.00	405.00	415.00	2,094.00	747.32	
G	Team Bingham									
g	Shannon Bingham	387.00	439.00	505.00	507.00	509.00	434.00	2,781.00	992.51	4,603.00
g	Kevin Moffett	352.00	146.00	476.00	108.00	490.00	250.00	1,822.00	650.25	
H	Team Howard									
h	Mark Howard	442.00	452.00	500.00	517.00	509.00	382.00	2,802.00	1,000.00	4,505.00
h	Matt Curtis	327.00	360.00	164.00	307.00	427.00	118.00	1,703.00	607.78	
I	Team Monaco									
i	Jim Monaco	376.00	153.00	504.00	510.00	420.00	368.00	2,331.00	831.91	4,494.00
i	Phil Jones	404.00	353.00	351.00	310.00	398.00	347.00	2,163.00	771.95	
F	Team Zika									
f	Gary Lewan	436.00	381.00	506.00	496.00	320.00	450.00	2,589.00	923.98	4,287.00
f	Jack Zika	278.00	426.00	220.00	178.00	345.00	251.00	1,698.00	606.00	
D	Team Ingram									
d	Don Ingram	313.00	444.00	493.00	231.00	502.00	397.00	2,380.00	849.39	4,233.00
d	Bob Johnston	449.00	180.00	330.00	169.00	419.00	306.00	1,853.00	661.31	
A	Team Keer									
a	Lenny Keer	453.00	449.00	510.00	350.00	507.00	394.00	2,663.00	950.39	4,033.00
a	Rick Housden	156.00	195.00	262.00	215.00	400.00	142.00	1,370.00	488.94	
E	Team Moffett									
e	Bob Moffett	333.00	433.00	448.00	470.00	150.00	393.00	2,227.00	794.79	3,301.00
e	Jack Oliphant	240.00	240.00	166.00	156.00	159.00	113.00	1,074.00	383.30	
B	Team Barr									
b	Jim Barr	350.00	450.00	292.00	157.00	241.00		1,490.00	531.76	2,470.00
b	Rick Housden	110.00	433.00	282.00	155.00			980.00	349.75	



Rocky Mountain Soaring Association

2000 RMSA Contest/Event Calendar

Date	Event	CD	Notes
Jan. 4	RMSA Meeting		
Feb. 1	RMSA Meeting		
Feb 4-6	<i>Southwest Classic</i>		<i>CASL Southwest Classic - Phoenix AZ</i>
Mar. 7	RMSA Meeting		
Mar. 12	Open*	Lenny Keer	
Mar. 19	Pro-Am	Jim Monaco	Third annual Pro-Am
Mar. 26	<i>PPSS - Open</i>	<i>Joel Zelmer</i>	<i>March Madness</i>
April 2	E-ZAGI Fun Fly	Lenny Keer	
Apr. 4	RMSA Meeting		
Apr. 9	Open*	Jim Barr	
Apr. 16	HLG**	Shannon Bingham	
Apr. 23	<i>PPSS - RES</i>	<i>Greg Tarca</i>	<i>Humps 'n Bumps</i>
April 30	2M*	Mark Howard	Restricted to 2 meter models
May 2	RMSA Meeting		
May 7	Open*	Bob Pederson	
May 13	HLG**	Skip Miller	Saturday event
May 20	<i>PPSS - Open</i>	<i>Austin Cleis</i>	<i>May Fly Contest</i>
May 27-28	F3B	Mark Howard	National Level Open
June 3-4	<i>IHLG</i>		<i>International HL Contest Torrey Pines CA</i>
June 6	RMSA Meeting		
June 10	<i>PPSS - 2M</i>	<i>John Read</i>	<i>First Annual Memorial Cup</i>
June 11	Open*	Bob Rice	
June 17	HLG**	Lenny Keer	Saturday event
June 18	RES†	Shannon Bingham	Rudder/Elevator/Spoiler only
June 24	<i>PPSS - RES</i>	<i>Jack Dech</i>	<i>Summer Solstice</i>
July 1	RES†	Rick Housden	Saturday event - Rudder/Elevator/Spoiler only
July 11	RMSA Meeting		
July 15	<i>PPSS- HLG</i>	<i>Rich O'Connell</i>	<i>Upchuck HLG</i>
July 16	Open*	Bob Lewan	
July 23	<i>PPSS - Open</i>	<i>Dave Meyers</i>	<i>Height'o the Season</i>
Aug. 1	RMSA Meeting		
Aug. 5	<i>PPSS - Night Fly</i>	<i>Frank Deis</i>	<i>Any expendable plane</i>
Aug. 6	Open*	Jim Monaco	Kinda-F3J
Aug 13	HLG**	Bob Lewan	
Aug. 20	<i>PPSS - RES</i>	<i>Bob Avery</i>	<i>Dog Daze</i>
Aug. 27	2M*	Mark Howard	Restricted to 2 meter models
Sept. 5	RMSA Meeting		
Sept. 10	Open*	Mike O'Hearn	AKA: Colorado Challenge Cup
Sept. 16	RES†	Rick Housden	Saturday event - Rudder/Elevator/Spoiler only
Sept. 23	<i>PPSS - Open</i>	<i>Mike Fritz</i>	<i>Soar Bash</i>
Oct. 3	RMSA Meeting		
Oct 7-8	<i>Visalia</i>		<i>Visalia California</i>
Oct. 15	Open*	Shannon Bingham	
Oct. 21	<i>PPSS - RES</i>	<i>Milt Woodham</i>	<i>Witches Brew</i>
Nov. 7	RMSA Meeting		
Nov. 12	Open	Bob Rice	
Nov. 19	<i>PPSS - Open</i>	<i>Jerry Murphy</i>	<i>Turkey Shoot</i>
Dec. 10	Awards Banquet		

*Club Open points contest ** Club HLG points contest † RES Triad Points
 Italics indicates major national level contests available for points and PPSS events



1999 Board Members

President:	Shannon Bingham	303-499-2314	binghams@boulder.earthnet.net
Vice President:	Jim Monaco	(303) 464-9895	j.m.monaco@worldnet.att.net
Secretary:	Bob Rice	(303) 745-5269	bob.rice@tobin.com
Treasurer:	John Pearson	(303) 306-6800	jp7120@aol.com
Past President:	Mike O'Hearn	(303) 693-6925	m.o.hearn@worldnet.att.net

Member Support

<http://www.digithead.com/rmsa/files/rmsaframe.htm>

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	j.m.monaco@worldnet.att.net

Winch Masters

Bob Rice	(303) 745-5629	Bob.rice@tobin.com
Mike O'Hearn	(303) 693-6925	m.o.hearn@worldnet.att.net
Shannon Bingham	(720) 304-7474	binghams@boulder.earthnet.net
Gary Lewan	(303) 277-1375	



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.



Forwarding Address Requested