



Rocky Mountain Modelers

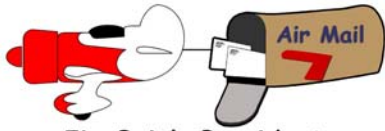
Merry Christmas!



Smooth Landings

www.modelers.org

December, 2005



Jim Brink, President

Greetings, Modelers. I must begin this way because we haven't seen much of each other at the field this month due to bad weather. Wind, rain, and cold have a way of keeping me home. I've been confined to backyard flying and working through the bugs on a new airplane. I trust you are all similarly occupied.

Repairs to the cracks in the runway at Modeleers Field that were approved at last month's meeting have not proceeded well due to the same conditions that have curtailed flying. I hope you will see some progress soon. The repairs to the runway at Clifton are entirely the fine work of Jerry Craig. That facility is much improved. Thanks, Jerry. Now if we could only do something with the prairie dogs.

Gene Burmeister and Don Vagge have been investigating reports of radio interference on several of our channels at Modeleers Field and at Clifton. Be sure to read the summery of their findings in this newsletter. The results are very interesting. Thanks, Gene.

Everyone at last month's meeting at Home State Bank enjoyed the new space. It is large, comfortable, and well lit. If you missed last month's meeting, plan to enjoy this one with your flying friends. There will be a board meeting at 6:00 before the meeting, and we will open the north and south doors for club members at 6:50. If you arrive late, please send the door watcher down to the meeting and then wait to let in the next arrival. Then leave that person to open the door for the next member, and come on down.

I have noticed the spread of electric equipment in the club lately. Even such gas stalwarts as Fred Damm and Loren Deines are enjoying electric flight, so the program at this month's meeting will be a panel discussion of the basics of electric airplanes. We will include such topics as how motors work, what are brushless motors, outrunner motors, props, gearboxes, speed controls, lithium batteries, cost factors, and any other subject you have questions about will be discussed. I have asked two of our most knowledgeable e-guys to help me. Tom Keller and David Mielke have a better understanding of this subject than most of us, me included, and they have agreed to share some of their experience with us. If you have wanted to get started in e-flight but are at sea about how, this presentation should help.

President's Letter concluded on page 3...

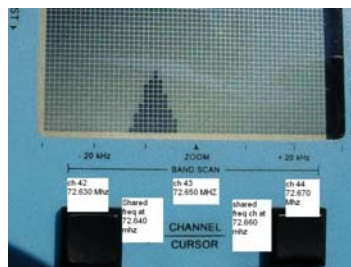
Radio Interference on the 72 Megahertz Band at Modeleers Field

Submitted by Gene Burmeister

Don Vagge and Gene Burmeister have been investigating RF interference at the Modeleers field Nov. 6th. - to 20th and have found two signals from other transmitters that share the 72 MHz band with RC airplanes. A snapshot of the frequency analyzer screen shows a signal between channel 42 and 43 (an intermittent signal was also noted between channels 21 and 22, it has the same orientation). From a technical point of view, these signals are legal as their bandwidths are plus/minus 5 kHz around the carrier and located on the even 10 kHz frequencies (for example 72.640 MHz). The FCC has assigned the odd 10 kHz frequencies (i.e. 72.650 MHz) to model airplane Radio Control frequencies and limited the bandwidth to plus or minus 5 kHz. This insures the frequencies will not interfere with each other. To my knowledge, the even 10 kHz frequencies are used by pagers and remote control industrial equipment such as remote control hosts. Bottom line, we cannot complain of a violation to the FCC. The club does not plan any changes in field rules or regulations. However, if a model airplane pilot is concerned about flying on channel 42 or 43, then for \$10 a crystal (two required for TX and RX), they certainly have the right to move off those channels. Since we have lost one plane on 42, it makes sense to let the club members know so they can make informed decisions.

The photo shows the even 10 kHz (72.640 MHz) frequency signal's strength rolling off before it conflicts with our channel 43 at 72.650 MHz. Note channel 42 at 72.630 MHz is 20 kHz to the left of ch 43. Also notice the shared 72.640 MHz signal is shifted to the right of the 72.640 MHz marker, this is due to a slightly mistuned frequency analyzer which I have to have retuned by the manufacturer. I confirmed the mistuning by checking some of my RC transmitters.

More information on how dual conversion receivers reject the unwanted frequencies may be found on the Modeleers web site under *publications/articles* titled "Dual Conversion Receivers."



January newsletter submission deadline:

December 20th



Next Meeting -- Monday, December 5th, 7:00 P.M. at Home State Bank, 303 E. Mountain Ave.

Minutes of the November Meeting



Minutes of Monthly Meeting

Rocky Mountain Modeleers
November 7th, 2005
Home State Bank, 303 East Mountain Avenue,
Ft. Collins, CO 80524

President Jim Brink called 10 members to order at 7:10 P.M. for our first inside meeting of the year at our very nice new meeting place in the basement of Home State Bank on East Mountain Ave.

Visitors included Lee Reep, who was very welcome at his first club meeting. Lee is a model rocketry veteran of many with Bo Viger, expanding his flight options now into r/c aircraft. He has flown his 40-sized trainer several times recently with club instructors and plans to join the club soon. Lee's company builds UAVs.

Minutes: Kevin Borchers's last name was inadvertently omitted from the October minutes. He was one of the guests from the Valley View club who attended the annual fall family picnic and fly-in. The minutes were approved, with this addition.

Treasurer's Report: Gene Burmeister reported a club check book balance of \$2060. Gene will present a budget for 2006 for the December meeting and requests input from any member bearing on that subject.

Safety Officer's Report: Loren Deines reported from personal experience that small electric aircraft can quickly get away from a pilot. He recommended keeping such aircraft out east of the Modeleers runway, and noted helpfully that shouting "Heads Up!" minimizes risk to members dozing in the pits.

Mike Harrington discussed the recent introduction by Horizon Hobby of park flyers sold with radios on 72 MHz (rather than on 27 MHz). He noted that the AMA is working to get this practice reversed but suggested r/c pilots should be cautious. Mike also discussed "spread spectrum" technology (SS; aka digital SS, or DSS), which is the basis for a new type of radio control system making its way into the r/c community. The AMA website suggests SS will permit operation of park flyers, foamies and small helicopters on the 2.4GHz band, without interference to pilots flying on 72 MHz channels. The AMA expects future variants of SS to be available for other r/c aircraft, such as glow- and gas-fueled planes. Dan Williams, of the AMA Frequency Committee, discusses SS in the July 2005 issue of *Model Aviation*. He notes that SS communication is used in cell phones and in wireless connections to the internet and is the reason wireless laptop users can work next to each other in an airport without interference. He writes that "SS is immune to interference from traditional narrow-band sources that thrive in our 72 MHz RC band."

Dave Brock discussed a recent article in *R/C Report* (July 2005) about cell phone interference with r/c radios. We considered whether this should be the basis for banning cell phones from Modeleers flight lines before deciding that more information is needed. Gene Burmeister has contacted Steve Kaluf (the AMA Technical Director) about this issue. Mr. Kaluf notes that this problem has been reported for only one type of Futaba radio and reflects cell phone interference with a particular transmitter — not more generalized cell phone

interference with 72 MHz operation. He does suggest testing your 9Z if you own one.

New Business

1. Jim Brink noted that a quarter-inch crack has developed ~six inches in from the edge of the Modeleers Field runway, all around the perimeter. Jim and Jerry Craig recently patched 20 feet of the crack using a caulking gun and estimate the cost of a complete patch at ~\$100. The Executive Committee authorized them to expedite this repair, hopefully before the weather turns cold.
2. Gene Burmeister and Don Vagge recently used a frequency monitor to investigate possible signal interference at Modeleers Field related to what seems a suspiciously high number of lost aircraft there this season. Gene and Don will report more details on this at the next meeting.
3. Club decals for aircraft are available from several local and national sources at costs of ~\$3 for 2-inch decals saying "RMM" or smaller decals spelling out "Rocky Mtn. Modeleers." Garret Hultgren and Gene Burmeister will report back with more details soon.
4. Joe Butler, a past RMM officer and member for many years, is moving to Arkansas. We thank Joe for his efforts in support of the Modeleers over the years and wish him the very best in r/c flying and all other endeavors in the wild east.
5. We'll hold the annual mall show in January or February. Details are pending.

Show and Tell:

Fred Damm's 25% scale Super Craft Monocoupe 90A drew accolades from the membership. This beautiful red-and-white ARF sold by Kangke required very little tweaking out of the box, according to Fred. The Monocoupe was one of the fastest and best high-wing planes of the 1930s for racing and aerobatics. The model weighs 15.1 lbs, with a 96.5" wing span, 61.5" length, and 21.5-oz/sq ft wing loading. Fred will power it with a 160 Magnum Twin 4-stroke engine, hoping for a maiden voyage soon.

Announcements: Various r/c items from Joe Butler and from the estate of a Loveland r/c pilot were available after the meeting to interested members, with donations gratefully received.

Next Meeting will be held at 7 P.M. on Monday, December 5th, at Home State Bank.

Meeting Adjourned at 8:04 P.M.

Respectfully submitted,
Dave Sampson, Secretary

The Modeleers weather report is now available on the internet. The URL is:

[http://redbull.leachman.com/
weather/currentwindstatus.html](http://redbull.leachman.com/weather/currentwindstatus.html)

You can find 7-day weather history as well as the daily wind values.

Check it out!



Meet the Member



Sam Kotby

Born/raised: Alexandria, Egypt; moved to Laramie, WY, in 1975 to attend the University of Wyoming

Married: Yes, wife - Linda

Children: Two – daughter, Kenzie, a senior at the University of Wyoming, swims on the UW swim team; son, Tarek (T.J.) is a sophomore at St. Cloud State University, St. Cloud, Minnesota. He competes on the SCSU swim team.

Occupation: Owner of Kotby Motors

Years in hobby: Dabbled in it all my life until Larry Grover and Don Vagge taught me how to fly....

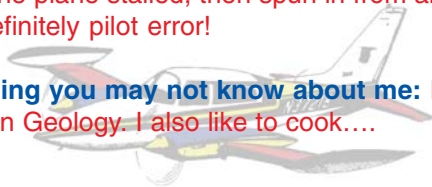
Member since: April 2005

Planes/ helis owned: Avistar, Sig Cadet, Ultra Stick, Lancair, DuraPlane, Condor Magic Glider, working on a P-51 Mustang. (My full-scale plane is a Beechcraft Bonanza F33A.)

Favorite plane/ heli: The Ultra Stick, right now.

Worst crash: With my Avistar, I was coming in for a landing, trying to hold altitude. After losing most of my power, the plane stalled, then spun in from about 40 ft. high. Definitely pilot error!

Something you may not know about me: I have a degree in Geology. I also like to cook....



President's Letter concluded...

Also at this meeting, Jerry Craig will show off his entire fleet of WW I scratch built mini-scale electric fighters. They are a kick and will fit in well with the rest of the electric program.

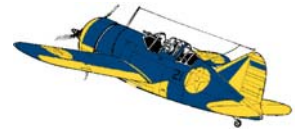
See you at the meeting.

Wheels down landings,

Jim Brink



Classified Ads



For Sale -- New Futaba 8-channel FM receiver with channel 15 crystal - \$45. **Call Clint at 224-4350**

Scrambled Plane Game

Below is a scrambled picture of an r/c airplane. The first person to email or call me the correct name of this plane is the winner and will be announced in the next newsletter! Please email me at garret425@frii.com or call at 224-4350.

Good Luck!



Last Month's "Scrambled Plane"

Seagull Models
Harmon
Rocket



Congratulations to last month's winner of the "Scrambled Plane Game"

Greg St. John



Although I thought last month's plane was tougher than most, Greg quickly figured it out!



AMA Charter #1824
Annual Dues:
 Adult: \$50
 Junior: \$30
 Family: \$60
 Half price after July*
 (*Only for new members!)
 One-time runway fee: \$50

Membership is open to all RC model airplane enthusiasts who are members of the Academy of Model Aeronautics (AMA). Activities of the club include all phases of RC modeling: instruction, sport flying, contests, etc. A monthly newsletter is sent to each member.

Current membership is required for flying at any club field. A non-member who is an AMA member may fly two days as a guest.

New members are welcome!
 Ask any member for information.

Our meetings are held at
 7:00 P.M. on the first Monday of the month at
 Home State Bank on 303 E. Mountain Ave.
 (Call an officer for directions if necessary.)

Officers:

President	Jim Brink	223-3975
Vice Pres.	Bill Tuttle	484-8378
Secretary	Dave Sampson	223-9088
Treasurer	Gene Burmeister	674-9820

Editor	Garret Hultgren	224-4350
Webmaster	Ryan Korzyniowski	231-1857

Weather Station 568-3203

Flight instruction is offered during Daylight Savings Time at no charge to members. The flying field east of Jax is reserved for beginners each Thursday evening after 5:00 PM. Other instruction times may be arranged by appointment with an instructor.

Instructors:

Mike Lohr	221-5278	
Fred Damm	221-4457	
Loren Deines	494-1117	
Larry Grover	224-5124	
Dan St. John	223-0849 (Helicopters)	
Greg St. John	223-0849 (Helicopters)	
Don Botteron	223-8050 (Adv., by Apmt. only)	
Don Vagge	223-1169	



Home State Bank
 303 E. Mountain Ave.
 (970) 203-6100
 Four Fort Collins locations,
 four Loveland locations



Justin Mueller, Manager
 The Pavillion Ft. Collins, CO 80525
 4348 South College Phone (970) 226-3900
 Fort Collins • Longmont • Westminster

Next Meeting -- Monday, December 5th, 7:00 P.M. at Home State Bank

Rocky Mountain Modelers
 c/o Garret Hultgren
 1630 Sagewood Dr.
 Ft. Collins, CO 80525