



ROUNDTABLE

The Denver Radio Club Newsletter

August 2008

Since 1917

PRESIDENT'S MESSAGE

By Gerry Villhauer-W0GV

Greetings DRC Members,

I can't believe it is August already! We still have several projects to complete before the weather slows us down, especially for Squaw Mountain. Plans are now coming together to make some changes to the transmit system on our 449.350 repeater. This will be in concert with three other groups who have UHF repeaters co-located on squaw. There are some ongoing interference problems with the numerous transmitters which mix with each other and cause problems. We will be using a piece of equipment called a "combiner" to put 4 transmitters on one antenna. Although you may say, would that not make things worse? The answer is no. This is a common practice in commercial communication sites. The end result should be transparent to our users, except for less interference products. More on this as it progresses. Along the same line we are still having troubles with our VHF receiver for the Hudson site. The problem is low receiver sensitivity. The board and tech committee is exploring our alternative to replace this 30 year old piece of equipment and get the station up and going. We have a big antenna party planned for August 9th for our Centennial site. It looks like we have enough climbers and ground people committed to complete the job. Completing this long awaited project will solve most of our 145.490 problems and get our 448.625 back on the air. As most of you know this repeater has been off the air since we were forced to move from Green Mountain. Thanks in advance to all who have volunteered to climb or be part of the ground crew.

I would like to welcome new DRC members Jerry Benson-Montgomery, KD0DUO, and Larry Cornell, KD0ELZ. Thank you for choosing the Denver Radio Club as your club. Please come to the meetings and activities and be an active member.

Thanks to our member Brant Zirker, W0BKZ, for our July program on soundcard packet software programs. Our

August program will be presented by Bill Rinker, W6OAV. Most every DRC Member knows Bill and that he really enjoys researching, experimenting and gathering information for his always interesting presentations. This program is on Sporadic E (Es) which is a very fascinating mode providing long distance communications from 500 miles to 1400 miles on 10, 6 and 2 meters. Bill will explain how the Es work and how to determine when they are occurring. This promises to be an interesting program, don't miss it.

See you all at the meeting August 20th at the St. Joseph's Episcopal Church, 11202 West Jewell Ave., Lakewood, CO. That is about two blocks West of Kipling on West Jewell. And remember to check our website, w0tx.org, for lots of important information about the DRC. The Elmer Session and Tech Meeting start at 6:30 p.m. followed by the Regular Meeting and Program at 7:30 p.m.

73
Gerry - W0GV

DRCFest is here!
Are you ready for
the big one Colorado?



INSIDE THE ROUNDTABLE

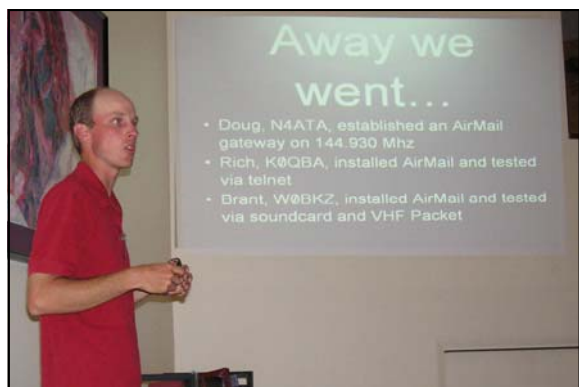
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JULY MEETING - WHAT'D I MISS

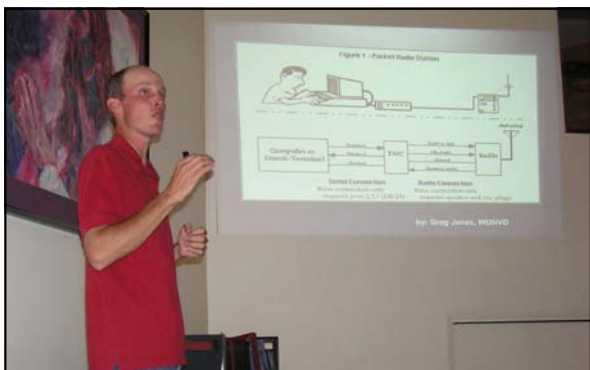
By Bill - W6OAV

After introductions, Jim, K0TOR, discussed the training necessary for participating in emergency communications. He described the ICS 100 and 700 courses which are available at www.training.fema.gov/emiweb/is.

Oscar, K0SSE, than gave an overview of the club field day activities and some of things learned. He gave certificates of appreciation to various club members who made outstanding contributions to the field day activities. The meeting attendees then gave a resounding round of applause in appreciation for all the hard work Oscar put into the field day project. THANK YOU Oscar.



Brant, W0BZK, rounded out the meeting with an outstanding presentation titled "Sound Card Packet AGWPE". Brant covered the interfaces required between the computer and the radio, installing, configuring and using AGWPE, Airmail and Paclink MP. He then gave us a live demonstration of sending and receiving email via VHF Airmail. If you need any additional information on these systems, Brant will gladly oblige.



TECHNICAL COMMITTEE REPORT

By BILL W6OAV

This month's Technical Committee meeting was cancelled as a majority of the members were out of town.

AUGUST DRC MEETING PRESENTATION

Sporadic E "Es" is a very fascinating mode which provides long distance communications from 500 miles to 1400 miles on 10, 6 and 2 meters. Want to know what "Es" is, how "Es" works, how to determine when "Es" is occurring and how to work "Es"? If so, come to the August club meeting. W6OAV will give a presentation covering these issues and more.



This month's *RoundTable* is dedicated to Field Day and all the club members who participated in this great effort.

FIELD DAY 2008

By OSCAR - K0SSE

(This article is being written with a disclaimer. Any references to the name Murphy is a reference to the virtual Murphy responsible for the quote "anything that can go wrong will go wrong". In other words, the use of the name Murphy does not refer to any real person.)

As I promised in last month's *RoundTable*, this article is to bring you up-to-date on the result of Field Day 2008. The Denver radio club had a **great** Field Day event. Although thanks to Murphy, I was really afraid that it was going to turn out to be a very disastrous one. Why? Because, Murphy tried his best to do everything he could to upset to it.

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(Continued from page 2)

First of all, I believe it was Murphy who started the Park County wildfires. Because of those wildfires the Salvation Army had to withdraw much of the support it had promised to us. This meant we were unable to meet one of the objectives of our event, which was to contact Long Beach, California. Also, the hot kitchen, which was to provide meals for the two-day event was not available. Later on Saturday, one of the cold can-teen trucks did come up and provide snacks and cold drinks for us, thanks to Barry Wilson, and Gerry Singer, KC0CAT. As it turned out the Salvation Army did provide some of the promised support, and that helped us to make the event better than what could have been expected.

The cleanup, which we are required to do in accordance with our agreement to use the Hudson site, got under way Saturday morning. *(Just for information; we scheduled the cleanup to be accomplished before the field day activities began.)* I could tell we were not going to be ready to set up in accordance with the planned schedule, but it didn't matter. Frank Ortega, N3PQ decided it would take us a lot longer to chop weeds and



cut the grass with the weed cutters we had on hand. So, he returned home and grabbed his lawnmower and came back. This greatly sped up our clean up efforts. We owe Frank, a big thank you.

We were beginning our Field Day setup to get ready to go on the air. But Murphy wasn't through with us just yet.

On one of the transceivers I brought up, my FT-897, we had to figure out why we had such a high SWR on the attached dipole antenna. Later, I discovered I had forgotten to bring the appropriate cable to connect the transceiver to the associated tuner. *Chalk one up to Murphy.* Then we discovered the dipole was cut for 10 meters. *Yes, I knew better, we were just too anxious to get started.*



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phy. Then we discovered the dipole was cut for 10 meters. *Yes, I knew better, we were just too anxious to get started.*

Things seemed to be moving along but then Jim asked me where the instructions for installing the 14 AVQ vertical were. I quickly ascertained that my wife, repacked packed the car and had failed to put the second 14 AVQ antenna in the car, as well as the notebook containing all the instruction manuals for the vertical antennas, and the FT-897. Murphy scores a big one. ***(When I got home I discussed this with my wife and she pointed out where I had left everything; the instruction manuals, the second vertical, and the connecting control cable. She further pointed out; it would take me a long time to pay for my mistakes and to let her take the blame.)***

Furthermore, Murphy had something to say about propagation, which just didn't seem to be on our side at least as far as SSB was concerned. All the while, Wally Gamble, AC0T, had been working away. He had gotten his vertical antenna up, batteries connected and laptop running in his camper. Wally was making PSK 31 contacts left and right and saved the day for us. Thank you so much Wally.



(Continued on page 4)

(Continued from page 3)



On the North side of the site where the Honda 2K generator had been installed and which provided the power for the other four transceivers; David Bassinger had set up his transceiver and the gang was making contacts on 20 meters. Murphy was losing this one.

But Murphy still wasn't giving up. We had counted on visitors from our served agencies and from law enforcement. But with the wildfires raging I just knew we would not have any VIPs. But suddenly, Chief Marco Vasquez, KB0FPS of the Sheridan, Colorado Police Department, appeared. He stated he had promised to visit our site and to sign our visitor's log. He also stated he could not stay long. He signed the log, and we thanked him very much. We really appreciate the fact that he took the time out to visit us and to sign our logbook.

So what seemed like a disaster Saturday was turning out to be pretty good. Brian Steinberg, KB0A, arrived and announced he was going to prepare a hot breakfast for us. This certainly was good news. About 9 pm everybody was ready to turn in. There certainly wasn't any danger of the Denver radio club, operating anywhere near 24 hours, let alone 27 hours.



We started Sunday morning off making contacts on 20 meters HF single side band. Some 10 meters contacts were made and Wally Gamble, continued to make contacts on PSK 31. Gerry Villhauer, W0GV, was determined to finish up the day on 40 meters, with at least 200 contacts on that band.

As the quitting time came closer, progress was being made on 40 meters. Our club president sat down at the 40 meter radio station. He talked about the noise, he talked

about the interference, but he was determined. Slowly the 40 meter numbers began to go up, 150 contacts then 160,



170, 180. Suddenly however they started to slow down 185, 188. Was Murphy back? It was getting harder to get to 200 contacts 190, 195, 197, 198. Would 200 ever come? But

finally he hit 200. In actuality, he made it to a total of 205 contacts. Gerry was very happy.

I went around and I checked with everybody else. Wally Gamble had logged about 171 PSK 31 contacts. He had worked all five bands we had set up for. The 20 meter station pulled out 145 contacts. Even Jim Beall had managed to get some contacts on 10 meters for us.

Well gang by the time the points were counted up, DRC had almost tripled its point count over that of its 2007 Field Day. 2008 wasn't so bad after all.

So if you think 2008 was good. Just wait until you see what's planned for 2009. You better join us then. '73

As the Sun sets on Field Day 2008 all eyes and thoughts turn to Field Day 2009.

Pictures provided by
Oscar - K0SSE
Dave - K0HTX
George - AG0S



David Hathaway, NASA Solar Physicist

The longest minimum on record, the Maunder Minimum of 1645-1715, lasted an incredible 70 years. Sunspots were rarely observed and the solar cycle seemed to have broken down completely. The period of quiet coincided with the Little Ice Age, a series of extraordinarily bitter winters in Earth's northern hemisphere. Many researchers are convinced that low solar activity, acting in concert with increased volcanism and possible changes in ocean current patterns, played a role in that 17th century cooling.

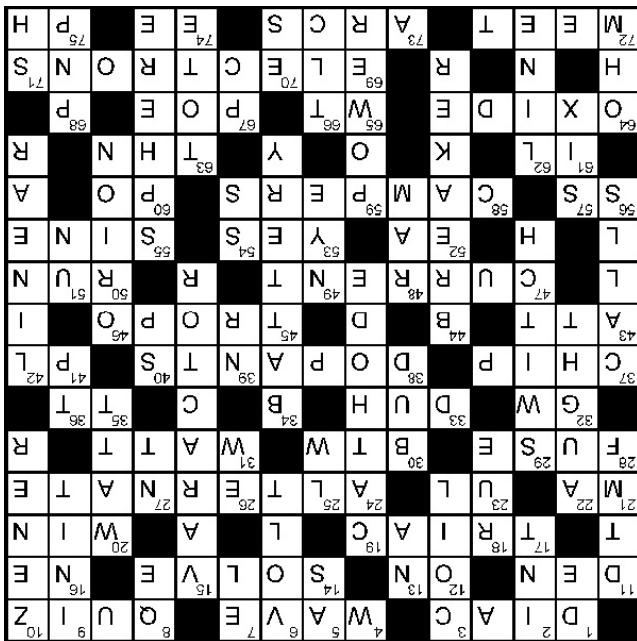
For reasons no one understands, the sunspot cycle revived itself in the early 18th century and has carried on since with the familiar 11-year period. Because solar physicists do not understand what triggered the Maunder Minimum or exactly how it influenced Earth's climate, they are always on the look-out for signs that it might be happening again.

The quiet of 2008 is not the second coming of the Maunder Minimum, believes Hathaway. "We have already observed a few sunspots from the next solar cycle," he says. "This suggests the solar cycle is progressing normally."

What's next? Hathaway anticipates more spotless days¹, maybe even hundreds, followed by a return to Solar Max conditions in the years around 2012.

In summary, "the current minimum is not abnormally low or long."

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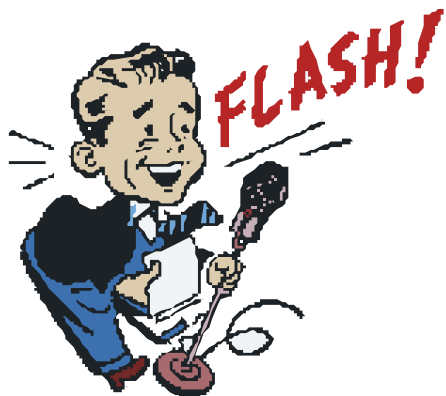


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UP COMING EVENTS



The BIG one is coming!






**The Denver Radio Club Hamfest
Jefferson County Fair Grounds**

When: Sunday August 17 - 8:30am to 2pm

Food Fun

*Lots of vendors with everything you need
Computers ~ Radios ~ Antennas
Parts + pieces
You name it and you'll see it here!!!*

***For more information!
contact Bryan - KBOA
Volunteers Needed
drcfest@comcast.net***

AUGUST 2008							<i>DRC Net Sunday 8:30pm Local</i>
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
					1  New Moon	2 ARRL UHF Contest Begins 1800U	
3 ARRL UHF Contest Ends 1800U	4	5	6 Learning Net 7pm	7	8  First Quarter	9	
10 14er All Band Contest 9am to Noon	11	12	13 Learning Net 7pm	14	15	16 Setup for Hamfest	 Full Moon
17 The Big One! DRC Hamfest 8:30am - 2pm	18	19	20 DRC Meeting Elmer 6:30pm General 7:30pm	21	22	23  Last Quarter	
24/31	25 IARU HF World Champ. Ends 1200U	26	27 Learning Net 7pm	28	29	30  New Moon	

Check www.ARRL.org for Contests and Rules!

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DRC REPEATERS

BAND	Freq / Shift / PL Tone	Additional Information
10m	29.620mHz (-100kHz) FM	
6m	53.090mHz (-1mHz)	
Packet	145.05mHz<>14.105mHz	
2m	145.490mHz (-) 100Hz PL	
2m	147.330mHz (-) 100Hz PL	Member's Auto-Patch
1.25m	224.380mHz (-) 100Hz PL	
70cm	448.625mHz (-) 100Hz PL	Temporarily Off The Air <i>Pray for good weather.</i>
70cm	449.350mHz (-) 100Hz PL	Wide area coverage with Echolink Node # 4140.

EDITOR'S NOTE

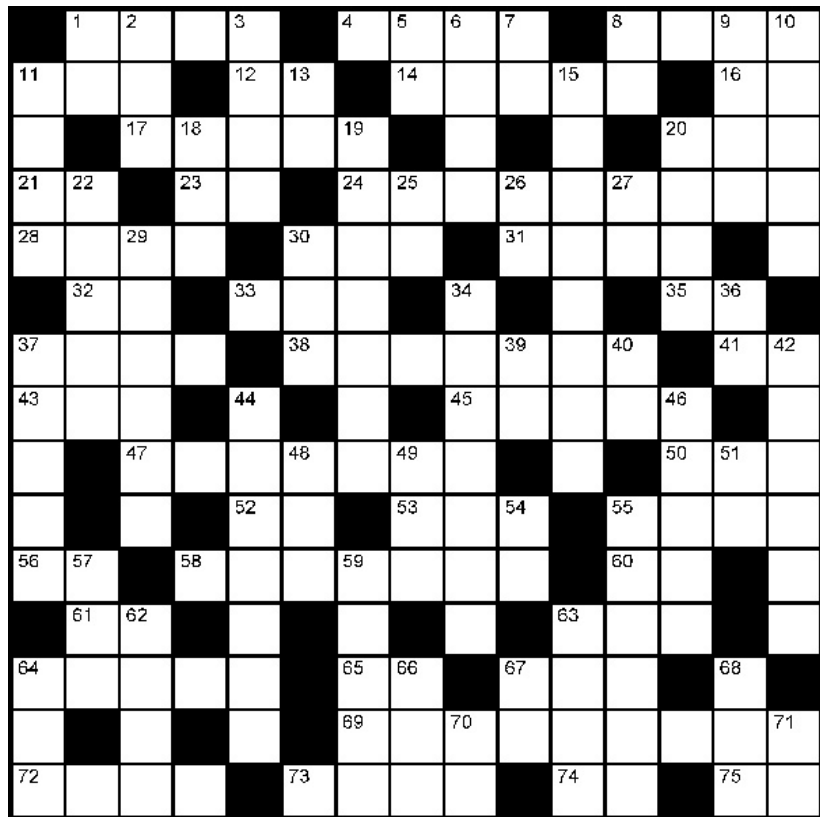
DRC members - this is your newsletter. If there is something which is club or amateur radio related that you'd like to see as a regular feature, email suggestions to the editor. Members are the heart and sole of The Denver Radio Club, if you have an expertise or an interest in a particular segment of ham radio that you'd like to write about, you may email your submissions to DRC_RT@comcast.net. Submission deadline is the 25th of the Month. Editor

The Bits and pieces

Quick! What's inside all that gear you have in the shack? Smoke? Well, sorta, but no - that's not it, try again, I'll wait...right! Electronics! And so, too, is the topic of our puzzle this week. No, not inside your gear! The topic is electronics - things to do with and of the bits and pieces that make our radios go. And there's a little Field Day fun sprinkled in there, too. Have fun!

By H. Ward Silver, NØAX

NOTE: Puzzle solution is located on page 5.



Across

1. Two-terminal thyristor
4. Radio parameter measured by length
8. Exam or puzzle
11. Room of iniquity
12. Functional
14. Find the answer
16. Direction of Japan from Europe
17. Bidirectional thyristor
20. To be victorious
21. A megananoamp (abbr)
23. Safety lab (abbr)
24. What dc does not do
28. Protective component that melts
30. By the way (abbr)
31. Unit of power
32. How AM BC signals travel by day (abbr)
33. Express of disdain for ignorance
35. Another abbreviation for 11 Down
37. Slang for integrated circuit
38. Impurities added to semiconductors
41. Another abbreviation for CTCSS
43. Original US long-distance telephone company
45. Propagation via the atmosphere
47. Movement of charge
50. Cause a program to execute
52. Prefix of an Iberian country
53. Affirmative
55. Most common ac shape
56. Slow-to-corrode metal (abbr)
58. Popular vehicles at Field Day
60. Output power (abbr)
61. Load current (abbr)
63. Add 'l' to get a word that means "skinny"
64. What 'O' in MOS stands for
65. Weight (abbr)
67. Wrote quotes from ravens
69. What moves in wires
72. Come together
73. Long sparks
74. Designer of electronic stuff
75. Radiotelephone (abbr)

Down

1. CW for "from"
2. Interrupt or Internal (abbr)
3. What an inductor looks like
5. CW prosign for "stand by"
6. Unit of potential
7. Material that gives off light when electrically stimulated (abbr)
8. Initials of the ship that was once the largest passenger liner ever built
9. To start in a known state (abbr)
10. Type of diode used for its reverse breakdowns
11. Telephone dialing tones (abbr)
13. Only stations from this continent may participate in ARRL Field Day
15. Diode used as a variable capacitor
18. Regret
19. Diode electrode noted by the bar marking
20. Person that invented the steam engine
22. Another word for "zero"
25. Broadcast band below AM BC (abbr)
26. Which way to orient a dipole for directivity north and south (abbr)
27. Early version of the Windows operating system
29. Component that's closed or open
30. Manufacturer of Miniboxes
34. Chemical producer of electrical energy
36. Critical to Field Day success (abbr)
37. These are heard in a pileup
39. Number (abbr)
40. Opposite direction of LP (abbr)
42. Amplifier type needed for AM signals
44. Protective component that opens
46. Top of the line Ten-Tec HF rig
48. Volatile memory type
49. Manufacturer of keys
51. In "balun", means "unbalanced"
54. November contest (abbr)
55. A ball-shaped object
57. The magic band's meters
59. Makes things go
62. Voltage on the ac grid
63. Haul or carry
64. Unit of resistance
66. Repair and maintain with care
67. Computer (abbr)
68. Type of bipolar transistor
70. CW for "and"
71. What the librarian says