ROUNDTABLE

The Denver Radio Club Newsletter

September 2009 Since 1917

PRESIDENT'S MESSAGE

By Gerry Villhauer-W0GV

Hello DRC Members:

I am trying to get back into a routine again so please hang with me while I attempt to get back on track. First I would like to thank the DRC officers and members for picking up the ball and keeping things going during my absence. Especially thanks to our Vice President, Dave, WG0N, for writing the Round Table Presidents Message. And thanks to Bryan, KB0A, for a most successful hamfest. Bryan has things so organized that it seems to flow seamlessly, although several months of planning and lots of hard work goes into an event like our hamfest. Finally thanks to all who helped in the kitchen, the ticket takers, VE testers, program presenters and the several other positions that made our hamfest a success. As you may be aware, all of our radios at our station 4 location in Lakewood were off the air for a much longer time than we expected. Why was that you ask? If you are in the area take a drive by station four and you will see that our tower is still standing but the fire station is gone. West Metro Fire is constructing a new building on site. During the demolition of the old station the electrical power was disconnected as we expected. But what we didn't expect was the time it took to get construction power reconnected. Well, that being said, the power is now back on and all the radios are back in service.

We had a great month for new members thanks mostly to our hamfest exposure. I would like to welcome the following to the DRC: John Castrodale – W9EWP; Jan Alan Dickover – KK0JD; Paul Heller – KD0DFR; Robert Hurt – N0NJR; Colin Jones – KD0DQT; Ferman Martinez – W0MTZ; Reyann Martinez – KD0GLW; Isaiah Martinez – K1IPM; Isaac Martinez – W0ISM; Karl Purk – KB0SHO; Janie Vichareli – KC0QHC; Jim Ross – KA8ABD; Bert Thompson – KB3MHB; Barry Wilson – KA0BBQ. Please check in on the nets, come to the meetings and activities and remain an active member.

Thanks to Oscar Hall, K0SSE, for last months program on our 2009 Field Day. Our Hudson repeater site has proven to be an excellent location as we see our member and visitor participation grows each year. Our September program will be a video titled "Empire of the Air, The Men Who Made Radio". The video covers the contributions of De Forest, Sarnoff and Armstrong as well as the jealousy and fighting that occurred between them. Don't let a video keep you from attending, it is very entertaining and educational; these are some of the radio pioneers.

See you all at the meeting September 16th 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 pm. followed by the Regular Meeting and Program at 7:30 pm.

Gerry, W0GV
President

INSIDE THE ROUND TABLE

AUGUST MEETING - WHAT'D I MISS

By Bill – W6OAV

As usual, we had a great turn out with 49 attendees at the meeting. Jerry, W0GV, began the meeting with introductions. He then gave an overview of the commercial power problems which occurred at the Station 4 site (location of the 147.33 repeater, the 6 meter repeater, the 220 repeater and the 20 meter packet gateway). The power problems have been resolved and all systems are now on line.

Jerry then turned the meeting over to Oscar, K0SSE. Oscar gave an in depth review of the DRC field day activities. He began with the pre-field day site cleanup. Oscar reviewed the site setup activities and the subsequent field day operations. As usual, there were a few funny incidents, and things learned, which Oscar imparted to the group.

Oscar then awarded Certificates of Appreciation to all the folks that contributed to the success of Field Day. A big thank you to all for making the Field Day the best yet!

After Oscar's presentation, Jim, K0TOR, announced that he'll be conducting a general class upgrade class this fall if there is interest. Be sure to contact Jim if you are interested, or know some one else who might be interested.

The meeting then ended with several lucky members winning door prizes.

TECHNICAL COMMITTEE REPORT

By Bill – W6OAV

No report this month. Next Month should be a busy one so watch the October RoundTable for news.

SIDE NOTE

HAMFEST VE SESSION REPORT

By Mel – KØMEL VEC

AUG 16, 2009 Session

I want to thank the VE Tem of, Frank N3PQ, Tom KC2CAG, David KØHTX, Pete WMØP, for their time to make the others who passed their exam as happy as we were when we got out ticket and upgrades. We have Five new Hams, and Four new General Class Licensees. The session went very smooth, and Special Thanks to Frank for helping Bob with his exam session. Bob has sight limitations and Frank aided his sight when needed. Sorry that Bob did not make the upgrade to Extra, but hopefully next time!

73,
Mel


What's left of Station 4

A Good Stealth HF Antenna Part 3

By Bill – W6OAV

Inverted L antennas can take three forms: 1) Single band ¼ wavelength, 2) Single band ½ wavelength and 3) Multiband. Each configuration has its own advantages and disadvantages.

¼ WAVELENGTH SINGLE BAND INVERTED L

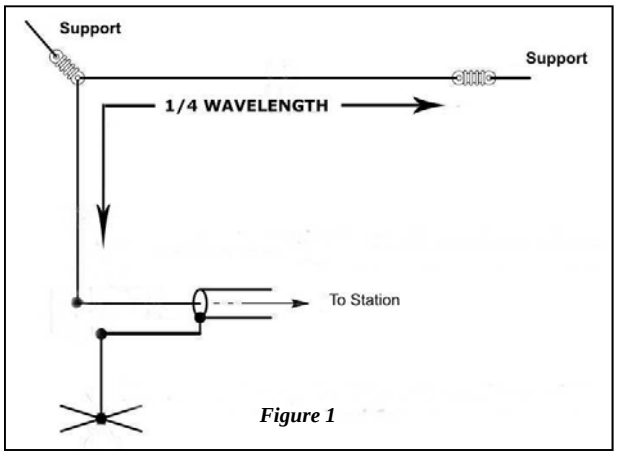


Figure 1

Figure 1 shows a ¼ wavelength Inverted L. The advantages of this antenna are:

- Requires no matching network. The SWR will normally be less than 1:5 to 1.
- Requires minimum space, especially on the lower HF bands.

The disadvantages of this antenna are:

- As is true with any ¼ wavelength ground mounted antenna, it requires radials. The radials need only to be between 1/8 wavelength and ¼ wavelength long. More 1/8 wavelength radials are better than fewer ¼ wavelength radials. (Reference article "Radials De-mystified" in the April 2008 issue of the "Roundtable").
- Maximum RF radiation takes place from the base of the antenna which causes ground losses and doesn't help get the RF radiation above surrounding houses.

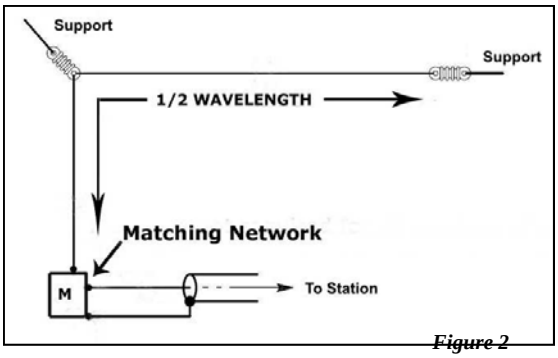


Figure 2

½ WAVELENGTH SINGLE BAND INVERTED L

Figure 2 shows a ½ wavelength Inverted L. The advantages of this antenna are:

- Does not require radials.
- Unlike a ¼ wavelength Inverted L, the maximum RF radiation takes place above the ground which reduces ground losses and helps get the RF radiation above surrounding houses.

The disadvantages of this antenna are:

- Requires a matching network. The matching network is simple and inexpensive to build. Basically, it consists of a parallel tuned circuit resonate on the desired band.

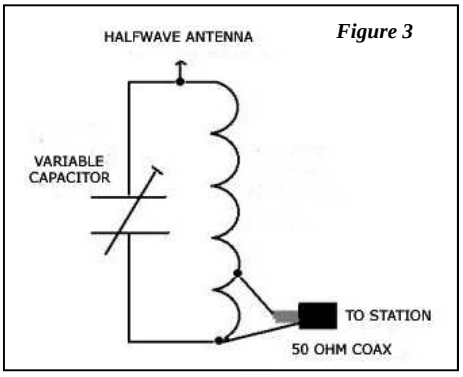


Figure 3

Figure 3 shows the feed point is tapped up the coil from ground until the 50 ohm point is located. This is easy to achieve with an antenna analyzer. Google "End Fed ½ Wave" for many examples of simple homebrew matching networks. If a commercial tuner is used make sure that the specifications indicate that it will match up to 5000 ohms. Also, one can order a commercially made ½ wavelength end fed antenna from Par Electronics (http://www.parelectronics.com/) The Par Electronics antenna can be installed in the Inverted L configuration.

- Has extremely high voltages at the feed point! Be careful!

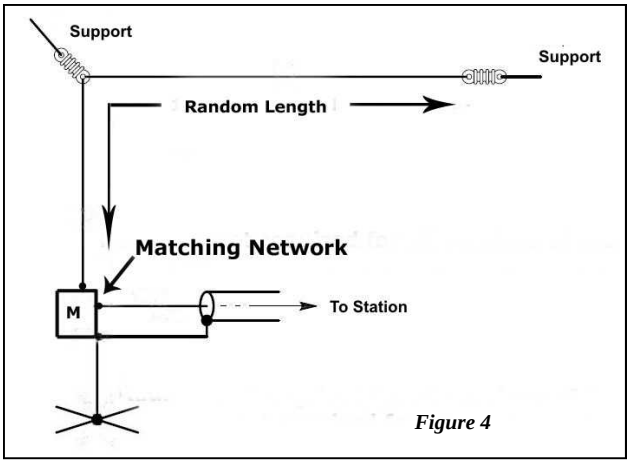


Figure 4

(Continued on page 4)

(Continued from page 3)

MULTIBAND INVERTED L

Figure 4 on the previous page, shows a multiband Inverted L. The advantages of this antenna are:

- With a variable tuner, it can be made to resonate on all HF ham bands.
- On the higher bands the RF radiation takes place above the ground which reduces ground losses and helps get the radiation above surrounding houses. Also, some gain may occur.

The disadvantage of this antenna is:

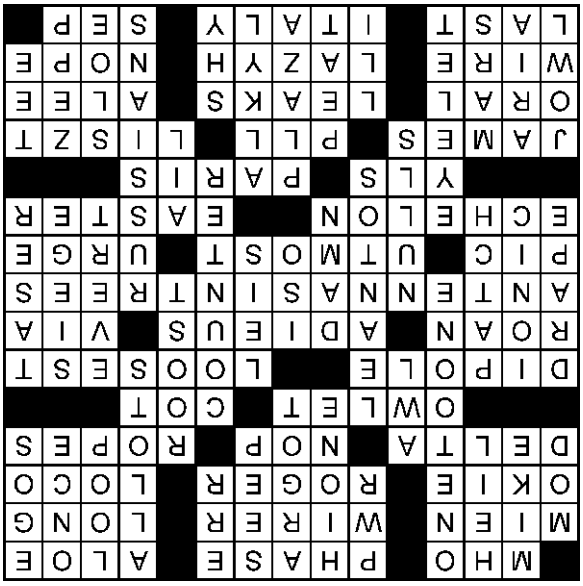
- Requires radials and a tuner.
- On the lower bands, the RF radiation will take place closer to the base of the antenna which will cause ground losses and doesn't help get the RF radiation above surrounding houses The longer the antenna, the less these effects.

NOTES

As mentioned earlier, the ratio of the length of the horizontal wire verses the length of the vertical wire is not critical. If you prefer to favor close in communications, make the horizontal wire as long as possible. If you favor DX, make the vertical wire as long as possible.

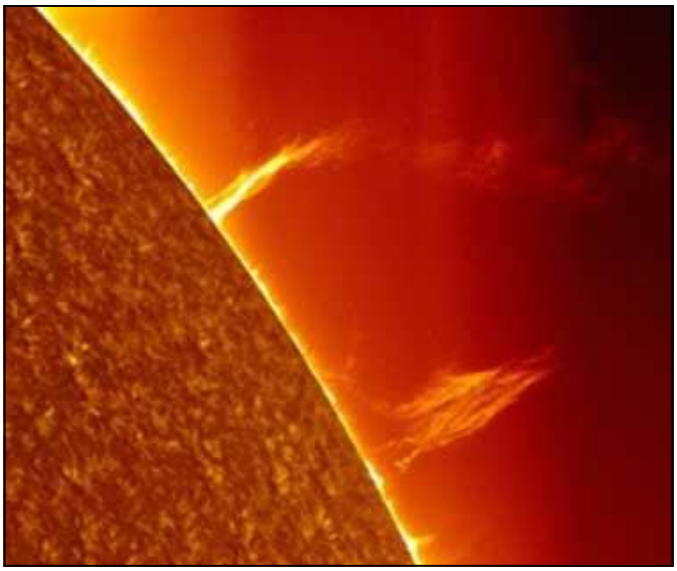
In general, the radiation pattern from the horizontal wire will be broadside to the wire. Like any long wire, if the horizontal wire is long enough, the radiation pattern will take on lobes. This could cause a null in a desired direction. The radiation pattern from the vertical will be omni-directional.

A good reference on Inverted L antennas is http://www.antennex.com/preview/archive3/ltv.htm



SOLAR UPDATE

SOLAR SURPRISE: Even during the deepest solar minimum in a century, the sun has the capacity for surprise. Larry Alvarez got one yesterday when he bent over the eyepiece of his solar telescope in Flower Mound, Texas. "I thought it would be just another day with a vanilla-wafer solar disk, but I was in for a blazing shock when I checked out the edge of the sun," he says. "There was a huge worm popping out of the apple--a prominence of magnificent proportions!" Here is what he saw:



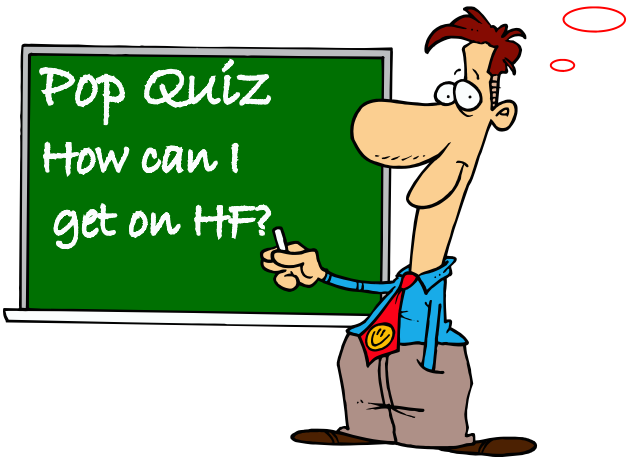
"What a doozy," he says. "I watched the prominence for more than two hours and captured many good images."

Real-time images from the Solar and Heliospheric Observatory indicate that the prominence remains active. Readers with solar telescopes should take a look. It's no longer a surprise, but still a doozy.

Excerpted From SpaceWeather.com

UP COMING EVENTS

That's an easy one Call Jim KOTOR and Sign up for the General Class!



27 SEPTEMBER – BARCFEST
BOUNDER AMATEUR RADIO CLUB
Longmont, Colorado
Boulder County Fairgrounds
8am to ?
License Exams 10am sharp
Contact Mike W3DIF 303.404.2161

5 SEPTEMBER – 25TH ANNUAL HAMFEST
ALAMOGORDO AMATEUR RADIO CLUB
Alamogordo, New Mexico
Otero County Fairgrounds
7am to 2pm
License Exams 12noon
Contact K5LRW@qsl.net
Admission FREE

ARRL AUDIO NEWS VIA MP3
To listen to *ARRL Audio News* go to http://www.arrl.org/arrlletter/audio/index.html/aan0828.m3u.

ARRL Audio News for August 28, 2009
Individual Stories:

- ARRL Audio News--OPEN--In this edition . . .: MP3
- FCC to Utilities: Don't Look to Hams to Pay for Your Testing: MP3
- Hurricane Bill Passes New England, Finds Newfoundland: MP3
- ARRL Audio News ID--Satellite Update--BREAK: MP3
- ARRL Vice Director Elections Set for November: MP3
- Space Shuttle Discovery: Three Hams on Board: MP3
- SuitSat-2 Now Called ARISSat-1: MP3

ARRL Audio News--News Briefs--CLOSE: MP3

Note: You need a 28.8 kbit/s or faster connection to play these files

September 2008

DRC Net Sunday 8:30pm Local

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2 *Learning Net* 7pm	3	4 Full Moon	5
6	7 Labor Day	8	9 *Learning Net* 7pm	10	11 Last Quarter	12 *ARRL* VHF QSO Party Begins 1800U
13 Grandparent's Day	14 *ARRL* VHF QSO Party Ends 0300U	15	16 *DRC Meeting* Elmer 6:30pm General 7:30pm	17	18 New Moon	19 *ARRL* 10GHz & Up Contest
20 *ARRL* 10GHz & Up Conest	21	22 First Day of Autum	23 *Learning Net* 7pm	24	25 Native American Day First Quarter	26
27	28	29	30			

Check www.ARRL.org for Contests and Rules!

DRC Board of Directors

President	W0GV	Gerry Villhaurer	303-467-0223	W0GV@hotmail.com
Vice-President	WG0N	Dave Baysinger	303-987-0246	WG0N@arrl.net
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Board Member	K0HTX	Dave Gillespie	303-880-1938	K0HTX@comcast.net
Board Member	AC7SX	Joe Delwiche	303-233-6229	lakewoodjoe@aol.com
Board Member	K0RCW	Robert White	303-619-1048	rcwhitejr@mac.com

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APRS Chair	KB0MQQ	Lloyd Plush	303-277-0785	LloydPlush@aol.com
Benevolent		Carolyn Wolf	303-279-1328	
RT Editor	AG0S	George McCray	303-751-7246	AG0S@arrl.net
Education	AJ0C	Robert Rude	303-841-6443	AJ0C@comcast.net

DRC Repeaters

BAND	Freq / Shift / PL Tone	Additional Information
10m	29.620mHz (-100kHz) FM	Not In Service
6m	53.090mHz (-1mHz)	
Packet	145.05mHz<>14.105mHz	
2m	145.490mHz (-) 100Hz PL	**Linked to the 70cm - 448.625mHz machine.**
2m	147.330mHz (-) 100Hz PL	**Local Area, Members Auto-Patch Does Not TX a PL!**
2m	147.330mHz (-) 131.8Hz PL	**NE Area Remote Does Not TX a PL!**
1.25m	224.380mHz (-) 100Hz PL	
70cm	448.625mHz (-) 100Hz PL	**Linked to the 2m - 145.490mHz machine.**
70cm	449.350mHz (-) 100Hz PL	**Wide area coverage with Echolink Node # 4140.**

Editor's Note

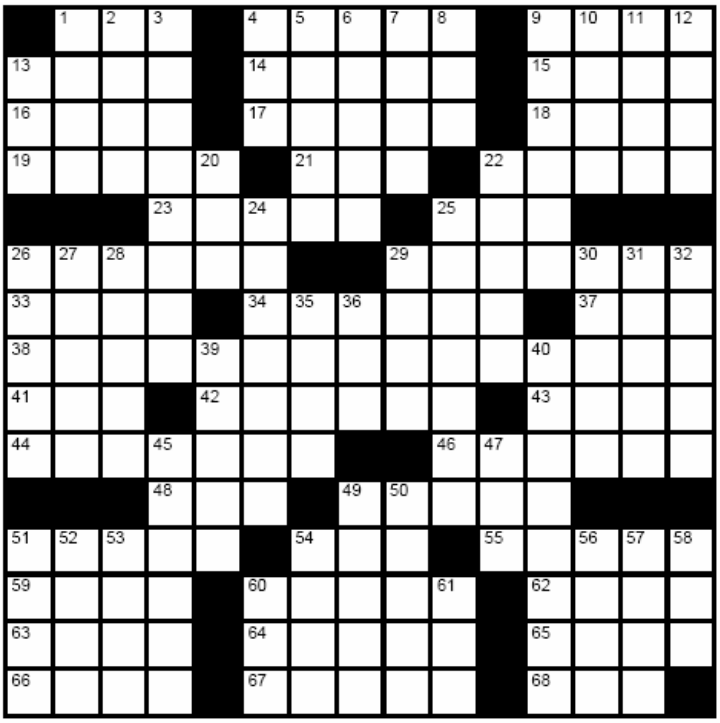
DRC members - this is your newsletter. If there is something which is club or amateur radio related that you'd like to see as a regular feature, email suggestions to the editor. Members are the heart and sole of The Denver Radio Club, if you have an expertise or an interest in a particular segment of 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**

Puzzle Page

NO Towers?

So, what's a HAM to?
Solve this puzzle and get some ideas.

Puzzle By Chris Codella, W2PA



NOTE: Puzzle solution is located on page 5.

Across

1. Siemens, before 1971
4. Word with in or out of
9. Burn soother
13. Bearing
14. Connecter
15. With 63-across, a multiband kind of 38 across
16. A W5, maybe
17. "QSL"
18. EA crazy?
19. Match type
21. Queue before Q
22. They hold up 38 across
23. Young winged hunter
25. FD bed, perhaps
26. Popular kind of 38 across
29. Least tight
33. Horse coloring
34. F CULs
37. QSL routing word
38. This puzzle's theme
41. Photo, esp. digital
42. Maximum
43. Implore
44. Troop formation
46. Storm, with nor-
48. Non-OMs
49. F capital
51. Equipment maker Millen
54. Modern VFO comp.
55. HA composer Franz
59. Like AM or SSB communication
60. What an old capacitor does, sometimes
62. Away from the wind
63. See 15-across
64. Slacker antenna?
65. "Uh-uh"
66. Zulu's position
67. Begali's entity
68. VHF QSO party mo.

Down

1. 2-down's product
2. Audio Bob
3. Match maker's goal
4. Part of PA, abbr.
5. Possible Hispanola prefix
6. Hamspeak, for example
7. Trickle
8. Flub
9. Apportions
10. Quad part
11. Story starter
12. They can be inflated
13. Ckt. alteration
20. Piercer
22. It's for the birds
24. Simple dwellings
25. Turns measurer
26. Hang
27. Charged
28. Word with cable or panel
29. KH6 loops?
30. 7x F-Open winner
31. attack
32. Stun gun
35. Condemn
36. Prefix with -tropic
39. Radiation pattern features
40. Most UA1's
45. Place for a lace
47. Be sick
49. Town square
50. Methyl, ethyl, e.g.
51. Cheek
52. Diva's solo
53. E-M cup target entity
54. ___ moss
56. Gin flavor
57. End-fed 26-across
58. Coax fitting
60. 75A-1 maker's middle
61. Short