

The Repeater Rag

Volume 31 Number 2

NEWSLETTER OF THE DENVER RADIO LEAGUE

A CLUB DEVOTED TO QUALITY AMATEUR RADIO

Published in Centennial, Colorado

EDITOR

Eileen Armagost, WDØDGL

Please submit Articles for publication to:

eileen@armagost.net

Preferred document format: MS Word

or mail hard copy to:

Eileen Armagost, WDØDGL

6337 South Lafayette Place

Centennial, Colorado 80121-2548

DRL BOARD MEMBERS

Dave Markham, WØCBI, President

Lisa Hurdlebrink, KØLMH, VP

Gary Dumbauld, NØERG, Secretary

Al Cooley, NØAUS, Treasurer

Mike Manes, W5VSI, Member at Large

Daniel Krohn, ABØZY, Member at Large

George Stoll, WAØKBT, Repeater Trustee

REPEATER LOCATIONS:

146.88Ø Warren Mountain

146.64Ø Centennial Mountain

449.6ØØ Lockheed Martin Company

145.Ø5Ø Digi - Lockheed Martin Company

Repeater Identifier: WAØKBT

DRL website: www.denverradioleague.org

or www.eoss.org/drl

The Denver Radio League is open to all licensed amateur radio operators. Repeater usage is limited to properly licensed hams.

Membership dues and renewals

~ Please make checks (\$15) payable to
Denver Radio League or DRL ~

Remit to: Al Cooley, NØAUS

6199 South Broadway

Littleton, Colorado 80121-8016

For information, contact Al at:

303-794-6511 or on the 146.88Ø Repeater

MEMBERSHIP MEETING REMINDER

WEDNESDAY, AUGUST 20, 2008

7:00 TO 9:00 P.M.

BEMIS PUBLIC LIBRARY

-
- HAMCON 2009!
 - ARRL NEWSLETTER: KANSAS HAM, SON, ELECTROCUTED WHILE ERECTING ANTENNAS
 - LIGHTNING – KEEPING IT OUT OF THE SHACK
 - THE ANTENNA FARM ...
 - YOUR REPEATER RAG PUBLICATION!
-

HAMCON 2009!

Once again, The Denver Radio League is one of the proud sponsors for HamCon Colorado 2009!



The dates will be May 29, 30 and 31, 2009 and the location will be in Estes Park.

The HamCon Committee is comprised of individuals from the sponsoring clubs and are working diligently to put together the best ever HamCon Convention to be held! There will be many exciting speakers, forums, manufacturers representatives and as always, the world famous “Wouffhong Ceremony” at midnight Saturday. There will also be many prize drawings throughout the event.

The Convention Committee has negotiated a great room price at the Holiday Inn for \$89/night! You can register *now* by calling the Holiday Inn at 1-800-803-7837 and request the “Special ARRL HamCon Rate”. Planning on camping? Contact the Estes Park RV/Campground at 1-800-562-1887 (no special rates).

Visit <http://www.hamconcolorado.org/> for upcoming details and on-line registration.

The ARRL Letter
Vol. 27, No. 28
July 18, 2008

Think safety with all you do!!

== KANSAS HAM, SON, ELECTROCUTED WHILE ERECTING ANTENNAS ==

While putting up backyard antennas on the afternoon of Sunday, July 13, Edward Thomas, KCØTIG, of Kansas City, Kansas, and his son Jacob were electrocuted. Edward, 65, was pronounced dead at the scene. Jacob, 27, was rushed to the hospital but died later that day. Initial reports suggest that the antenna they were installing came in contact with 7620 V power lines. Neighbors reported a "loud popping sound" and the electricity went out on the block.

Jacob's 7 year old daughter witnessed the tragedy and ran to the neighbor's yard, calling for help. Byron Kirkwood and another neighbor attempted to perform CPR on the men; the neighbor also called 911.

Robert Mullendore, a spokesman for the Kansas City Board of Public Utilities (KCBPU), was quoted by Kansas City television station KSBH as saying it is rare to survive a shock as strong as the two men received: "There are people who will survive -- they're lucky by the grace of God, it's high energy, it's dangerous, that's why it's up in the air -- you just have to be careful. Even those who survive have pretty wicked wounds and they are lifelong wounds." In the power business for more than 30 years, the spokesman said these accidents are "really rare," saying that he only sees something like this "every two or three years. If you're doing any kind of work like this, you just really, really need to be aware of your surroundings."

Chuck Kraly, KØXM, used to work for KCBPU; he built and maintained the substation that fed the circuit going to the Thomas home: "This is nothing to take chances with. In my almost 30 years as a ham -- and 27 years in the power utility field -- I have seen way too many 'accidents.' Stop and look. If it is close or seems that way -- don't. Find another place. High voltage lines are not forgiving. Your life depends on it. Please follow the warnings. Anywhere close is too close."

Thanks to Larry Staples, WØAIB, and others who contributed to this story --

LIGHTNING -- KEEPING IT OUT OF THE SHACK

There have been numerous articles in the ham journals recently describing lighting theory and protection basics for the ham shack. For brevity sake, I assume that everyone has seen these articles and at least grasps some of the basics and if not, knows where to look for more information -- so no detail here on all that theory. Here are a few ideas for one part of the protection system -- the antenna cable entrance panel.

Lighting is almost (not quite) as bad as politics -- you can ask a dozen people and get a dozen different answers -- but one thing everyone agrees on ... your station needs a grounded entrance panel with surge protectors. This panel can be at the base of your tower or antenna (as long as your coax cables stay physically on or under the ground when they run to your shack), or for a typical city installation, on the side of your house before the cables enter the structure .

Each coax cable must go through a surge protector that is mounted on this highly conductive metal panel. The metal panel is connected by large ground straps to the grounding grid (I have 12 ground rods and several hundred feet of copper wire and strap). There are a variety of good quality surge suppressors out there -- most have some kind of gas tube. The panel should be copper plated or made of copper. However, I have also made up smaller panels for friends from heavy duty PC circuit board -- typically with only space for four protectors -- and they have replaced a single 6 inch x 8 inch window pane. If you want to buy a ready made panel, look at the Polyphaser panels available from the ham stores or the panels made from MFJ that fit in a window sill.

In the photo is a picture of the panel I made for my home. I live near the top of a hill -- and with a 75 ft. tall tower installation, one of the first things I did before erecting the tower was to install a very good ground system and entrance panel. In my case, all my coax cables come through Polyphaser protectors mounted on the external side of this panel. It did take a large hole in the side of the house -- I cut that when my wife was out of town.

On the inside of the house, just below the entrance panel are two copper plates with my AC power surge protectors -- the dark box is for the 220 V service to my amplifiers -- the one below it is a commercial grade 120 V unit. Note the small copper strip allowing direct connection to ground the case, outlets and the neutral.

To the left of these is the surge suppressor for the rotor control cable. Since the rotor cable must come through the panel before connection to the suppressor, it comes through an 18 inch piece of ½ inch copper pipe and is coiled up outside before entering the pipe. This acts like a choke and waveguide beyond cutoff and helps strip off any fast rise time surge. The photo shows the central ground point for everything in my shack. Even the phone line and wireless Internet CAT 5 cable goes through a protector (out of the picture below).

So ... how do I handle open wire balanced line – the old fashioned way – a giant knife switch mounted outside grounds the antenna feed line when not in use, completely disconnecting it from the tuner and equipment. Hope this gives you a few ideas for your shack.

73 – George Stoll - WAØKBT

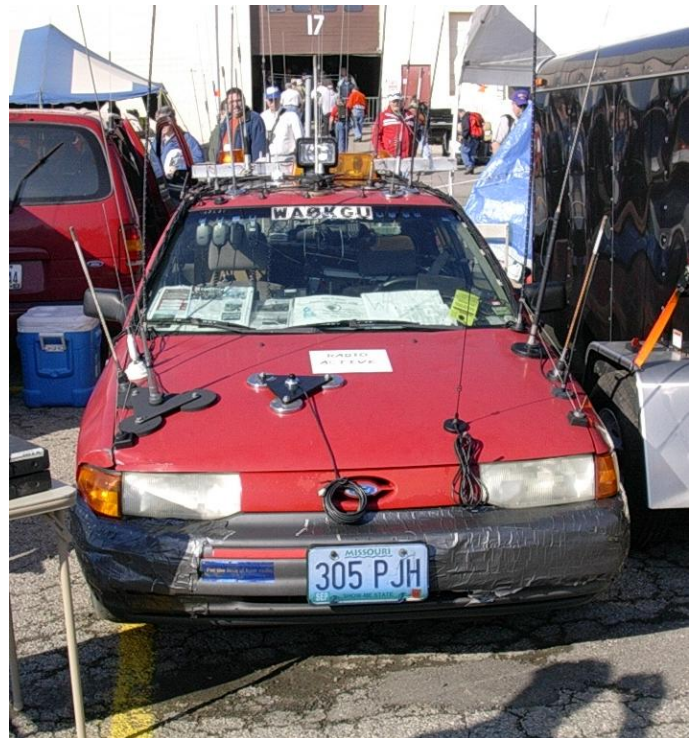


Inside view of antenna and cable entrance panel with protectors

THE ANTENNA FARM ...

Here is something kind of fun – a car with 36 antennas on it and no holes drilled in the car! Spotted at Dayton this year, I couldn't resist taking a picture. Judging by the condition of the car, I think I would have broken down and drilled some holes – it certainly wouldn't have hurt the resale value. Note the duct tape holding the bumper on and the sign on the hood "Radio Active".

73 – George, WAØKBT



YOUR REPEATER RAG PUBLICATION!

Thanks to those who provided articles for this publication of the Repeater Rag. Publications are only made possible by receiving articles from you. To continue the many years that this has been published, we need your input. All types of articles are welcome, e.g., humor (as noted above), informative and educational (you probably have some valuable information that would benefit other Hams who read it), stories of interest (what you've experienced as a Ham), etc.

Keep your articles coming! Please send your articles to eileen@armagost.net for future publications!

Thank you!
Ye Editor