

# The Repeater Rag

Volume 27

Number 3



NEWSLETTER OF

**THE DENVER RADIO LEAGUE**

**A CLUB DEVOTED TO  
QUALITY AMATEUR RADIO**

Published in the Denver South Suburban area, Colorado

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**DRL BOARD MEMBERS**

Chris Krengel, KBØYRZ, President

Tim Armagost, WBØTUB, VP

Gary Dumbauld, NØERG, Secretary

Al Cooley, NØAUS, Treasurer

Mike Manes, W5VSI, Member at Large

Nick Hanks, NØLP, Member at Large

George Stoll, WAØKBT, Repeater Trustee

**REPEATER LOCATIONS:**

146.88Ø ..... Lockheed Martin Company

146.64Ø ..... Centennial Mountain

449.6ØØ ..... Lockheed Martin Company

145.Ø5Ø ..... Digi - Lockheed Martin Company

**Repeater Identifier: WAØKBT**

*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

## Reminders:

*DRL Membership Meeting & BOARD ELECTIONS Wednesday, August 11, 2004 Bemis Public Library*

**GUEST SPEAKERS:**

**Larry Noble, NØNDM,** presents his overseas exploits (photo & brief on next page)

**Mike Pappas, KCØAIX,** presents the opportunity for a new location for one of our repeaters.

Check out these programs ...

You'll find them quite interesting and perhaps, enlightening.

## Board Elections

3 Board members are to be elected at this meeting. Those Board members whose terms are up are:

Al Cooley, NØAUS  
Gary Dumbauld, NØERG  
and  
Chris Krengel, KBØYRZ

Additional nominee names will be accepted from the floor prior to election.

## New Repeater Location Opp ...

Hi all!

We (DRL) have been given the opportunity for a new location for one of our repeaters. The location will be on Mt. Morrison right behind Red Rocks Amphitheater.

The site is being built by a group of people in the entertainment field including one of our own, Mike , Pappas, KCØAIX. They are willing to let us have free space in their building and tower (power, access to the internet, with an emergency generator, etc.). Mike will be at the August meeting to talk to us and to answer questions about the site.

We should consider moving the 449.600 to the Mt. Morrison site. The thought is that we can spread out our coverage and to give us another wide area machine like the 146.640.

I went to the site and had no problem talking with and hearing Bruce, NAØBR, in Byers on my Kenwood D7 ht with an almost dead battery, plus I could talk to NØNDM at his house in the area of Orchard and Tower road (in the hole). This type of coverage would fill in some of our "gaps". There are some other towers in the area and some folks were concerned about de-sense problems, but as I stood beneath one of the antennas and talked to Bruce, I suffered none of that. The location is on the front-most face of the mountain, completely uninhibited by anything.

So with that said, please come to the meeting and hear Mike talk about the site.

See you at the meeting!  
Chris Kregel, KBØYRZ

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### FROM THE DESK OF RICK VON GLAHN, NØKKZ MEETING EVENTS COORDINATOR

Larry Noble, NØNDM, is the scheduled speaker for the August meeting. He will be present his overseas exploits while attending the Amateur Radio Direction Finding championships. Go to the [www.denverradioleague.org](http://www.denverradioleague.org) and select the Meetings page to view the photo below. Besides, it's a really nice site to visit as well!

Thank you, Rick!



Larry Noble, NØNDM  
and Chris Kregel, KBØYRZ

## MINUTES OF THE DENVER RADIO LEAGUE GENERAL MEMBERSHIP MEETING HELD MAY 13, 2004

Chris Kregel, KBØYRZ, called the meeting to order at 7:35 p.m. with 16 members and 1 guest present. The minutes of the November 2003 meeting were read and approved.

The treasurer's report was deferred because Al, NØAUS, was going to be late.

### OLD BUSINESS:

CROCfest –there are enough people on the list to get underway. Tim, WBØTUB, reported on the things we discussed and decided on at the board meeting; as of this meeting, the CROCfest is set for April 9, 2005. Ben Baker, KBØUBZ, asked about insurance.

Jim Flannery, KØUNX, volunteered to undertake the building, setup and management of the proposed IRLP link; as he has lots of expertise in Unix and should be able to deal with the Linux scripts. Jim also has a high speed internet connection.

### NEW BUSINESS:

The controller on the 88 machine will be changed out tomorrow (5/14/04) – Mike Manes, W5VSI, will become the keeper of the keys for the 146.88 repeater site.

Milt Davenport, WØIW, will have some free parts and equipment to get rid of soon. He will tell us when these items are available. Mike, W5VSI, and Chris, KBØYRZ, will probably pick up the first batch of stuff for swap meets.

The Treasurer's Report was read and approved as presented.

Break for Donuts

With no other business, the meeting was closed at 8:50 p.m.

Thanks to Rick for making the coffee while I was running around trying to find keys, etc.

Gary Dumbauld, NØERG, Secretary

## BPL and the Rural Myth

Broadband over Power Line (BPL) continues to be a major concern of all amateurs using the high frequency spectrum. As an update, I have included a map of trial and commercial deployment locations current as of July, 2004 in the United States (courtesy of a non-copyrighted United Telecom Council press release) [map is on the last page].

Most BPL systems are using spectrum in the 2-80 MHz range and coupling this energy to existing low and medium voltage power lines that run down an alley or are buried in the street. Amateur and commercial RF receivers operating in this same spectrum will incur harmful interference if their receiving antenna is in near proximity. As all of you know, the problem is that the power lines act as unintentional radiators (antennas).

While FCC and BPL manufacturers continue to promote the merits of using the power lines for broadband communications, what is not common knowledge is that BPL is not cost effective for rural areas. Some officials have even gone so far as to praise the technology as *the way* to serve the rural population of the U.S. But once you take a look at the technology and its cost, it is very clear that if it is successfully deployed it will be in urban and suburban environments.

Power lines are not designed to efficiently transmit HF energy – after all, they are designed for minimum loss at 60 Hz. As a result, the BPL signal must be repeated at distances as short as 500 feet. Some types of equipment may be used on spans up to 2,000 feet. So...lets do a few calculations. To serve a rural farm house 2 miles from a main power feeder that transported BPL signals it would take at least five repeaters and maybe up to 20 – each costing several thousand dollars to serve one customer. As you can see, it is not going to be a cost effective rural solution. And check out the map, all of the trials are in urban or suburban environments. So why do officials continue to promote it as such? Because it is politically correct to be addressing the broadband needs of rural America – even if the technology won't be used there.

I will bring you more on this technology in future issues and maybe a club meeting.

73, George Stoll, WAØKBT

## EARTHQUAKE!

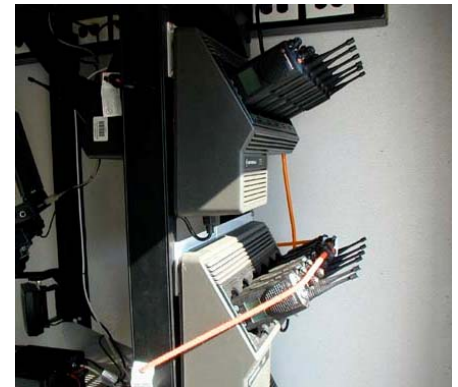
The day was July 31, 2004 ...  
the time ... inconvenient, of course.  
A birds eye view of a simulated emergency.



ARAPAHOE  
SHERIFF  
COMMUNICATIONS  
VEHICLE



A call for help was  
placed activating  
the District 22  
ARES CERT  
members ...



The Citizens Emergency Response Team (CERT) members worked with the Arapahoe Sheriff's office and we witnessed some of these scenes ...



First, coordination efforts



A victim is located inside the damaged building



Additional direction is provided.



Triage continues as victims are placed in a temporary hospital staging area.



Even a trained CERT can become a victim ...



Finally, the morgue staging area ... the victim almost brought tears to your eyes. But we did make this young man laugh after much effort! Well done!

As an observer, I was amazed at the "real" victims and the training of the CERT people dealing with wounded and dying. Watching made me not want to be in a real event with screaming crazies looking for a loved one and those who die while trying to help them. An interesting simulation that brought home more of a realization about a disaster and what can happen.

Ye Editor

# BPL MAP

Current as of July, 2004 in the United States  
 (courtesy of a non-copyrighted United Telecom Council press release)

