# The REPEATER

*The* **REPEATER**

*The OFFICIAL newsletter of the Rogue Valley Amateur Radio Club*

**W7OEK**

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|---|---|---|---|---|
| Herb Grey | W7MMI | 773-4765 | | **President** |
| Don Bennett | KG7BP | 618-5189 | | **Vice President** |
| Lud Sibley | KB2EVN | 855-5207 | | **Treasurer** |
| Jack Schock | WA7IHU | 535-8471 | | **Secretary** |
| Tom McDermott | N5EG | 734-4675 | n5eg@tapr.org | **Newsletter and Membership** |
| Dave Basden | W7OQ | | dave@basden.us | **Webmaster** |
| Club Web Page: | | http://www.qsl.net/w7oek | | |

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## Next Club Meeting
Thursday, January 8, 2009. 7:00 PM
Red Cross Building, 60 Hawthorne St., Medford, OR
Across from Hawthorne Park
Swap Meet

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### President's Letter

Happy New Year to all. As we start the year with the annual swap-fest on Thursday January 8. Since we are geographically removed from the larger swap sessions, this is probably your best opportunity to unload un-needed stuff, and hopefully find something you can't live without.

As your old new president, I commend the 2008 officers for a job well done. Meeting programs were above average and Field Day was well organized. I will endeavor to do as well. I especially appreciate Lud, KB2EVN stepping forth again as treasurer. In addition to that, he offers many interesting programs.

And speaking of programs, I ask all of you to offer suggestions and/or programs that will enhance our meetings. I know there is a lot of expertise and experience in our midst

### Secretary's Report

Minutes of the 4 DEC 2008 meeting of the Rogue Valley Amateur Radio Club.

The meeting was called to order by president Don Bennett, KG7BP at the New Far East restaurant in Medford, Or at 6:30PM. Seventeen people where in attendance.

The first order of business was order dinner and visit.

After everyone finished their meal Don announced the nominees for the 2009 club offices, they are:

> President, Herb Gray, W7MMI
> Vice-president , Don Bennet, KG7BP
> Secretary, Jack Schock, WA7IHU
> Treasurer, Lud Sibley, KB2EVN

He then asked if there where any other

that can be shared. I need all the help I can get as well.

73, Herb W7MMI

## Not the First Thursday!

Because the first Thursday in January is in fact New Year's Day—this month only the RVARC meeting will be held on the **Second** Thursday of the month.

## Two Meter Repeater Frequency

Some RVARC club members have been heard on the K7RPT 147.62 / 02 repeater in the last month or two. This is an open repeater (no tone or PL access required). The repeater listens on 147.62 MHz and transmits on 147.02 MHz (high in, low out).

nominations from the floor. There being none he closed the nominations. Since there was only one person per position asked for a motion that these people be elected by acclamation. The motion was made and seconded and it passed unanimously.

Tom McDermott, N5EG will continue with the newsletter. Dave Basden W7OQ will continue as web-master, President Bennett then extended Jack's position as donut person indefinitely. The club still needs a volunteer as setup and coffee maker. Jack has the coffee pot now and will do it until someone volunteers. Herb will get the key from the Red Cross office the afternoon prior the meeting.

Don and his wife then put on their red Christmas and hats proceeded to draw names for the gifts placed under the Christmas tree. Everyone who brought a gift got a gift in return.

He then handed over the gavel and president's brief case to the Herb, W7MMI our new president who adjourned the dinner meeting at approximately 8PM.

Submitted by Jacob O. (Jack) Schock, WA7IHU, Secretary

## New Thrills on an Old Band
## Bud Larson, W7LNG

Have you tried 160 meters? Some call it the "top band". It's what is left of the original ham assignment of 1912. Back then, the powers that be thought waves shorter than 200 meters (1500 KHz) were worthless[1], and so let the amateurs have them. In the 1920s, bands were formed at 80, 40 and 20 meters leaving the 160m area for spark and beginners. 1927 ended our spark era and most took to 80 and 40 meters.

During WWII Loran was assigned to the 160m band. High-power pulses centered on 1850 and 1950 KHz. wiped out weak signals so that ships could locate themselves. At last hams were given sliver bands with lowered power limits.

I remember rag chews on my crystal frequency of 1985 KHz in 1949. In 1952 I worked KH6IJ in Hawaii on that freq. Big thrill!

Modern rigs (most cover 160 now) are more stable and selective and do a good job on 160. Just this morning I worked several Japanese, heard Siberia and Korea. With next to no sunspots, the low bands are at their best. When noise is low (WWV propagation forecasts of A0 and K0) the weak signals can ride in without being lost in the "mud".

What about the long antenna that's needed? In the 1960s I had a half-wave dipole on 30-foot masts. 250 feet long, extended to a tree on a vacant lot. When a house was built I lost the rusty fence wire antenna. Now I use my 130-foot dipole worked against wires in low trees and going to a fence. I tune it with a 1000 pF variable capacitor in series.

In early 1966, using a borrowed 75-watt Viking Ranger, I worked 9M4LP in Singapore on 1998 KHz. My record DX for a long time.

When Loran was shut down, amateurs got the whole band and weren't limited to 200 watts input. CW uses the lower part and phone is above 1843 KHz. Some still use AM and old rigs high in the band. It was years before I heard any European hams, but during a winter contest Scotland and Sweden were picked up. A super contest station on Cape Verde Island passed out many Africa contacts. I still need Africa to complete WAC (worked all continents). Fall I worked UA0CA. He sent me an email saying he has a kW, full-size antenna, and a Beverage antenna for receiving.

In 1995 we visited his farm near Khabarovsk, Siberia and walked to the river. It was about a half mile and some went swimming. Maybe that long low wire goes that way. Signals from Japan, etc. peak near dawn for several minutes.

Good luck and DX. 73, Bud Larson, W7LNG

[1] Ed note: This is because ground wave signals get much weaker as the frequency is increased. The regulators didn't know much about ionospheric refraction and skywave signals back then.

Most operators like to work DX. Sometimes finding that DX can be difficult, however. Many times a new country will come on the air. How do you go about finding the call sign, frequency, and other parameters of the new station?

The easy answer is to use a DX cluster to send you 'spots'. Originally, a DX Cluster was software program running on one computer. Local hams who heard a new station would send a 'spot' to the Cluster, usually on 2 meters using packet.

Other stations could log onto the cluster and ask the software to list all the recent DX spots. If you were located in a very active area, you could find some new countries—especially during an HF contest.

### Linking Clusters

In the late 1980's, DX Cluster operators starting lining their clusters together over long-haul VHF and UHF packet networks. The cluster software would exchange spotting information between all the clusters that were networked together. That way, you could see spots not only from your immediate area, but also from areas that are further away. This increased the chance that somebody would hear a new country, or some DX that you were interested in, because there would be many more listeners sending spots.

You would still log onto your local cluster to asked for DX spots, but they would come from a much wider area and listener base. The clusters added commands to show who left the spot, because sometimes the spot could come from a long distance away, and maybe you would not have the same propagation as the person doing the spotting.

### The Internet

In the late 1990's, DX Cluster operators starting using the Internet to link their clusters together. This broadened the reception area to roughly world-wide. So you have a really good chance to find DX spots that coincided with your interest. Unfortunately you might also find DX spots that were of no interest at all. For example: you might see a DX spot for a European station on 420 MHz that was spotted by another European operator. Not very likely you'd hear that DX in North America!

### Filters

Thus the DX Cluster operators started implementing 'filters'. These filters lets you specify what bands and spotting locations that your were (or were not) interested in. For example, you could log into your local cluster, and set the band filters to HF only, and maybe spotting location as west-coast only. That way you would get spots from the East coast of the US, which might have a band opening to the middle east when you would not.
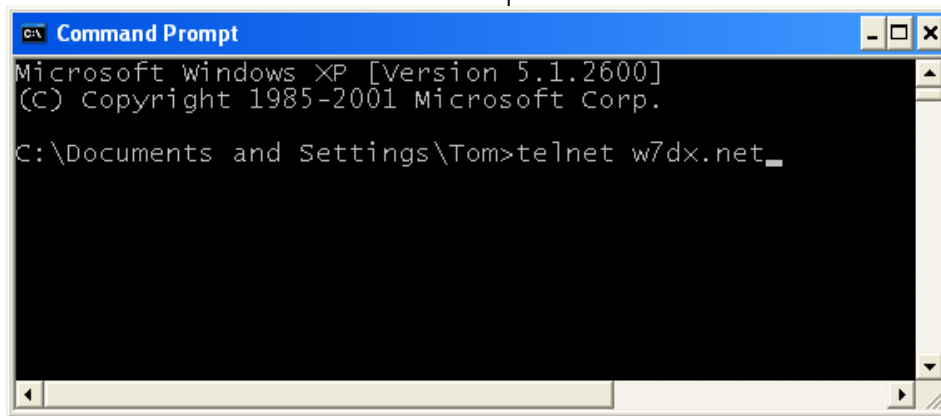
### Telnet

The original clusters used a serial port to connect the computer to the packet radio TNC. This was extended in the simplest possible way when the clusters were connected to the Internet. They used a protocol called Telnet, which predated almost every other protocol on the Internet. Telnet just emulated a serial port, except that it hands off text one line at a time (rather than one character at a time) between the Internet and the DX cluster. You needed a program running on your computer to provide a DOS-box interface. Quickly, Telnet was bundled with Microsoft operating system software, and you could just type Telnet W7DX.net at a DOS com-

mand prompt, and DOS would setup a telnet session between your DOS command box

```
Command Prompt                                    _ □ ×

Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Tom>telnet w7dx.net_
```
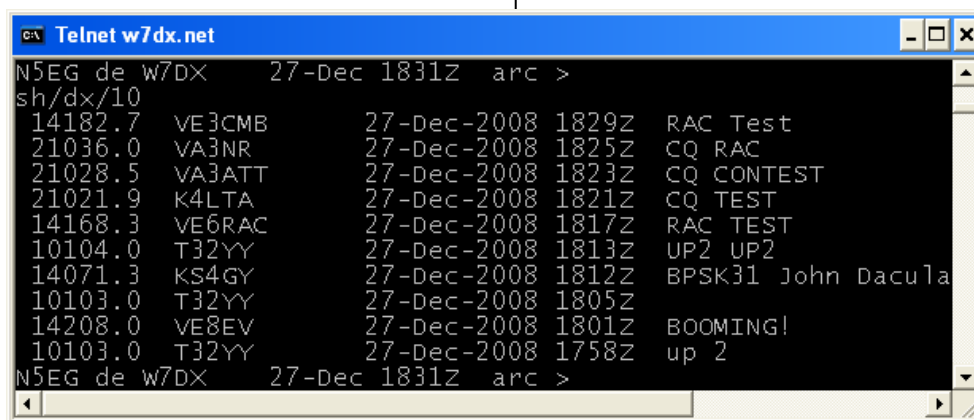
and the DX cluster.

You can still do this today, although the number of Telnet clusters has dwindled in the last few years. I use w7dx.net sometimes, and it seems to be pretty reliable. Just open command prompt box in Windows, and you can play with the cluster. See the picture below.

Once you login, you will be asked to provide your callsign, and the cluster will know your

```
Telnet w7dx.net                                   _ □ ×
N5EG de W7DX    27-Dec 1831Z   arc >
sh/dx/10
 14182.7   VE3CMB      27-Dec-2008 1829Z   RAC Test
 21036.0   VA3NR       27-Dec-2008 1825Z   CQ RAC
 21028.5   VA3ATT      27-Dec-2008 1823Z   CQ CONTEST
 21021.9   K4LTA       27-Dec-2008 1821Z   CQ TEST
 14168.3   VE6RAC      27-Dec-2008 1817Z   RAC TEST
 10104.0   T32YY       27-Dec-2008 1813Z   UP2 UP2
 14071.3   KS4GY       27-Dec-2008 1812Z   BPSK31 John Dacula
 10103.0   T32YY       27-Dec-2008 1805Z
 14208.0   VE8EV       27-Dec-2008 1801Z   BOOMING!
 10103.0   T32YY       27-Dec-2008 1758Z   up 2
N5EG de W7DX    27-Dec 1831Z   arc >
```

first name automatically (it queries the FCC database). You can ask for spots using the SHOW command (abbreviated sh). sh/dx/10 would show the last 10 DX spots. There is a help command, just type help, and it will show you all the sub-options for help. For

example, you could type help/show, and the cluster would list all the show commands

and how to use them. You can type the command help/filter, and the cluster will show you all the different spotting filters that are available. Your filters are stored locally, only on the cluster you are logged into. If you connect to a different cluster, you would need to setup filters on that if you want to have filters.

The command  sh/wwv/1 would show tha last WWV propagation forecast loaded to the cluster, which gives you Solar Flux (SFI),

and the A and K indices (a measure of geo-magnetic stability, low is usually better). The DX cluster function is also embedded in many software logging programs so that you do not need Telnet at all. But that's another article. Oh—the command to logout is 'bye'.

**For SALE**


**Wanted**:

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**Rogue Valley Amateur Radio Club**
**2136 E. Jackson St.**
**Medford, OR  97504-6964**