# January, 2003 Vol. 29—No. 1





# The Northwest Vintage Radio Society

The Northwest Vintage Radio Society is a non-profit historical society incorporated in the State of Oregon. Since 1974 the Society has been dedicated to the preservation and enjoyment of "Vintage radio" and wireless equipment.

Membership in the Society is open to all who are actively interested in historic preservation. The dues are \$20.00 for domestic membership, due on January 1st of each year (prorated quarterly).

The *Call Letter* has been a monthly publication since 1974. It was originated with the founder, Bob Bilbie, and our first president, Harley Perkins. Through several editors and with the assistance of numerous society members, the *Call Letter* has continued to be a publication that informs members of the society's business and that supports the hobby of collecting, preserving, and restoring vintage radios.

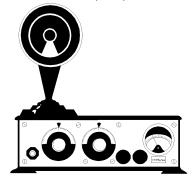
Society meetings are held the second Saturday of each month (except July and August) at the Abernethy Grange Hall at 15745 S. Harley Ave. in Oregon City, Oregon. They convene at or about 10 AM for the purpose of displaying radios, conducting Society business, and exchanging information. Guests are welcome at all Society meetings and functions (except board meetings).

Other Society functions include guest speakers, auctions, radio show, and radio sales which are advertised in the *Call Letter* and are held in and around Portland.

## Society Officers for 2003:

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President	Cliff Tuttle	(503) 666-7005
Vice-President	George Kirkwood	(503) 648-4809
Treasurer	Ed Charman	(503) 654-7387
Secretary	Liles Garcia	(503) 649-9288
Board member at large	Wendy Johnson-Kent	(503) 281-9335
Call Letter Editor	Rick Walton	(503) 284-5648
Librarian	John Bucholtz	(360) 693-7135

The Society's address is: The Northwest Vintage Radio Society Post Office Box 82379 Portland, Oregon 97282-0379



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**On the cover:** In keeping with the January monthly feature, the cover sports an early microphone and speaker, representatives of the beginning and end of the process of broadcasting audio information. The examples pictured belong to club members and were exhibited at past meetings.

# The next meeting is on January 11, 2003.

Annual dues are due!

Monthly feature:

Microphones, speakers, special power amps.

Tailgate swap meet starts at 8:30!

Visit our web site at <a href="http://nwvrs.org">http://nwvrs.org</a>.

# February Call Letter Deadline: January 28, 2003.

The *Call Letter* is the official publication of the Northwest Vintage Radio Society. Circulation is limited to the membership and guests of the Society. The Society is not responsible for the material contributed for publication, nor the quality, timeliness, or accuracy of the items offered for sale in the SWAP SHOP. By common agreement of the board of directors, the buyer assumes all responsibility for the satisfaction of any transaction.

# From the Editor

#### by Call Letter Editor, Rick Walton

Happy New Year to you all! Although Peace seems an elusive thing in the world, we can continue to hope and pray that Peace can be found in this new year.

As I sit here writing this in the waning hours of 2002, I realize that this begins my seventh year of editing the *Call Letter*. In all that time, I don't know if I've ever given adequate credit to the "production staff" who make sure that your *Call Letter* reaches you each month. Each month Sonny Clutter, Tony Hauser, Ron Hershey, Kem Sypher, Brian Toon, and I meet with Gordon Phillips at his home to collate, fold, staple, label, and stamp the roughly 150 copies of the *Call Letter* that are mailed each month to the members of NWVRS. I want to publicly acknowledge the great work these club members perform.

Be sure to note the roster updates in this issue. You might want to find your copy of the club roster and update it with the names of new and reinstated members as well as with the address changes of current members. And note the back cover if you have information to change or add.

Speaking of current members, don't forget: it's time to pay your annual dues if you haven't done so. Work will begin soon on the next roster, and you want to be sure that you're current in your dues so you'll be included.

The big article in this issue comes from past-president David Rutland, submitted by former *Call Letter* editor, Dick Karman. It is a most interesting personal perspective on the state of the high fidelity art at the end of World War II.

Also note the updated calendar of events that follows. It includes all of the local and regional hamfests and swap meets that I could locate on the internet. I'll endeavor to update it more with events put on by other antique radio clubs and societies.

# NWVRS 2003 Calendar of Events

**January 11** Regular monthly meeting 10 am; tailgate swap 8:30.

**February 8** Regular monthly meeting 10 am; tailgate swap 8:30.

**February 15** Salem Hamfair, Salem Repeater Association,

Polk County Fairgrounds, Rickreall, OR

http://www.qsl.net/w7sra

February 22	Hamfest, Naval Postgraduate School ARC, Seaside (Monterey), CA http://www.radiofest.org	
March 8	Regular monthly meeting 10 am; tailgate swap 8:30.	
March 8	22nd Annual Electronics Show & Fleamarket, Mike and Key ARC, Puyallup, WA. http://www.mikeandkey.com	
April 6-7	Yakima Amateur Radio Club W7AQ Hamfest 2003 April 5th, One day only this year, Yakima, WA. http://eagle.ykm.com/~W7aq/hamfest.html	
April 12	Regular monthly meeting 10 am; tailgate swap 8:30.	
April 26	Eagle Rock ARC & Eastern Idaho UHF Society Idaho Falls, ID http://myweb.cableone.net/wa4vrv/hamfest.htm	
May 10	y 10 Regular monthly meeting 10 am; tailgate swap 8:30.	
May 10	Hamfest, Stanwood-Camano ARC, Stanwood, WA.	
June 14	Regular monthly meeting 10 am; tailgate swap 8:30.	
June 13-15	SEA*PAC, Northwestern Division Convention, Seaside, OR Oregon Tualatin Valley ARC http://www.seapac.org	
July 19-21	Glacier-Waterton International Peace Park Hamfest July 18-20, 2003, East Glacier, MT. http://www.gwhamfest.org	
August 2-4	Pacific Northwest DX Convention, Portland, OR. Willamette Valley DX Club http://www.wvdxc.org	
August 16	Hamfest, Radio Club of Tacoma, Spanaway, WA http://www.w7dk.org	
September 13	Regular monthly meeting 10 am; tailgate swap 8:30.	
October 11	Tentative Fall Swap/Sale at Salvation Army Rose Center.	
November 8	Regular monthly meeting 10 am; tailgate swap 8:30. Nomination of officers for 2004.	
December 13	Regular monthly meeting 10 am; tailgate swap 8:30.	

Election of officers for 2004. Annual Holiday Party!

# Northwest Vintage Radio Society Meeting Minutes

## Liles Garcia, Secretary

President Wendy Johnson-Kent called the December 14, 2002 meeting of the Northwest Vintage Radio Society to order at 10:00 AM. There were 45 members and guests at our meeting today. The minutes of the last meeting were approved as printed in the *Call Letter*. Ed Charman gave the Treasurer's report, and it was approved. Our club sent Don Hunker some flowers while he was in the hospital for a recent surgery. He sent us a thank-you note.

#### **New Business**

**Election of Club Officers**— The following people were elected club officers for Year 2003:

President—Cliff Tuttle

Vice-President—George Kirkwood

Secretary—Liles Garcia

Treasurer—Ed Charman

**Library**— John Bucholtz said that he will inventory our library, and he would like for everyone to return library books.

#### **Leads And Needs**

Jerry Talbott brought some copper wire to the meeting for members to take what they can use.

Pat Kagi has Sams Photofacts number 1000 and above available for free.

Frank Olberding has some cotton-covered copper wire that he will bring to the January meeting.

Dick Bixler needs a cabinet for an RCA 6A1 console and a cabinet for a Heathkit AT-1.

Warren Bergh needs a 16 inch speaker for a McMurdo Masterpiece V radio. His phone number is (360) 943-1974, and his E-mail address is berghwh@attbi.com.

## **Program Topic**

The program topic for January will be "Speakers, Reproducers, and Microphones".

President Wendy Johnson-Kent adjourned the business part of our meeting and everyone present enjoyed some great food, great coffee, great punch, and some really great desserts!!!

# Club Roster Updates

These are roster changes to the blue 2002-2003 Membership Roster published last spring.

# Members new or reinstated since the Roster (2002-2003):

Bergh, Warren

434 100th Avenue, SE Olympia, WA 98501-7055

Geibel, William (Bill)

545 Missouri Avenue, S. Salem, OR 97502-5562

Ritthaler, Larry M.

2860 SE Lake Road Milwaukie, OR 97222

Salsberry, Rolland E.

1834 NE Ione Road Camas, WA 98607

Peterson, Robert A.

2205 SE 34th Avenue Portland, OR 97214

Wirtz, Michael J. 1571 NE 64th Avenue

Hillsboro, OR 97124

McEllrath, Kelly

16307 NE 230th Circle Battleground, WA 98604

Barratt, Jim

26313 SE Leonard Road Battleground, WA 98607

**New Address:** 

Vilasinee & Antonio Edgar 1925 NE 57th Avenue

Portland, OR 97213-3551

DeBoer, Melvin L. 19055 SW Butternut St.

Aloha, OR 97006-4635

Rutland, David

24280 Cardwell Hill Dr. Philomath, OR 97370-9739

Baker, Bud

3918 SE 102nd Avenue Portland, OR 97266

Kinyon, Jim

52044 Dorrance Meadow Rd.

LaPine, OR 97739

Brown, Roger T.

2743 SE Aspen Court Hillsboro, OR 97123

Pouch, Jim

10435 SW Grant Court Tigard, OR 97223

Tisa, Stephen M.

3105 NE 32nd Place Portland, OR 97212

Dorrah, Loren W. 2820 Lincoln Way, #B Lynnwood, WA 98037

# Photo Display

# Photography by Rick Walton

A few scenes from the December meeting and Holiday Party.











# Hi Fidelity Circa 1945

#### by David Rutland

Editor's note: This article is one that former editor Dick Karman submitted recently after going through his files. In an accompanying note Dick said, "I got permission, but I can't remember if I ever got around to printing it."

Toward the end of World War II I was working on a secret war project in Pasadena, California, as an electronics engineer. During my college days I had became interested in hi-fidelity sound equipment as a hobby and had built my own amplifiers and two and three way loud speakers. This is the story of how enthusiasts like myself obtained high quality music programs to play on our "Hi-Fi's".

Most of us that collect old radios enjoy the "tone" of great consoles of the '30's and it is still amazing to me that they were able to produce such good quality using the AM broadcasting system and the simple vacuum tube amplifiers. But we all must agree that there is a vast difference of quality between those radios and the modern stereos and CD players. This difference is, of course, due in large part to the increased range of audio frequencies that modern systems can reproduce.

#### **AM Broadcast**

The AM broadcast system, which has served in its basic form for so many decades, was designed to transmit audio over the range from about 100 to 5000 Hz while a good stereo is expected to reproduce from 20 to 20,000 Hz. It's the nature of AM broadcast that a station takes twice as much room (or bandwidth) on the dial as the highest audio frequency that it transmits. So AM stations were placed as close together on the dial as 10 KHz (10,000 Hz) which meant that if one wanted to receive high audio frequencies to increase the fidelity of your system you would most likely get a 10,000 Hz beat note from a neighboring station. This sounds like a very high pitched squeal which, to say the least, is not at all conducive to high fidelity listening.

A well known supplier of radio frequency coils for us hobbyists in those days was the Miller Company. They made a kit for a high fidelity AM broadcast receiver which used the old fashioned (in 1940) TRF circuit more typical of the 1920 radios. This circuit appealed to the purists because of its low noise. The superhets of the day introduced a hissing noise in the heterodyne circuit which, when you tried to obtain a wider frequency response became quite noticeable.

However, the reason that I mention the Miller tuner is that I remember the 10 Khz filter that you could switch on to eliminate the squeal from the adjacent station. I built myself a tuner using an alternate way to get hi-fi AM sound. In order to reduce the hiss I used a very low noise superhet circuit with a variable bandwidth feature. Thus I could increase the band width until I heard the 10 KHz squeal and then back off a little until it was gone. Powerful local stations could be received on a wider bandwidth than those farther away.

Collectors of communication receivers might be interested to know that my variable bandwidth tuner used IF transformers from Hammarlund's Super Pro. still have this vacuum tube tuner and it still works!

## **Early FM Reception**

Of course the great early radio engineer, Armstrong, had the solution for the noise and bandwidth problem -- Frequency Modulation or FM. What a long time it was before it was recognized as a far superior system for accurate sound reproduction.

By the beginning of World War II the FCC (Federal Communications Commission) had authorized FM transmission as we know it now but without the stereo. Commercial stations were licensed to broadcast on a band around 50 to 60 Mega Hertz, about one half of today's band (88 to 108 MHz). Back East several stations were on the air, including, I believe, those of Armstrong and Westinghouse. Everything in broadcast radio, including the early 441 line television, came to a halt with Pearl Harbor. In Los Angeles only one FM station was on the air, KHJ-FM. A Mutual Broadcasting network affiliate, KHJ was owned by Don Lee, an automobile dealer. They were always thought of as ahead of their times and Don Lee had the FM station on top of Mount Hollywood, the high peak right above Hollywood.

Now here was the possibility for me to get real hi-fidelity and so I looked for an FM tuner. They weren't building them during the war so in 1945 I had to settle for an old chassis without a front panel and in need of minor repair. Since there was only one station to receive I didn't have to get the set very well aligned. I was, however, to find a test oscillator at work to align the IF section which, in those days required delicate adjustment to provide the proper wide bandwidth.

Since I was in Pasadena not directly in sight of Mt. Hollywood I couldn't just used a short piece of wire for an antenna. I therefore got a 6 meter directional amateur radio antenna and installed it on the roof.

Now I was ready to really hear some good music over my home-built three-way speaker. Or perhaps it was my studio Altec speaker with multicellular horn and 15 inch woofer? But I was in for a little disappointment at first.

The problem lay with the program material available to broadcasters in those days. Of course for the general public there were the scratchy shellac records made to stand up to the eight ounce (that's right, one-half a pound not 8 grams) pickups or tone arms. I remember my first fourouncer and by 1945 the studios were using one ounce (30 gram) pickups. But the studios didn't always play shellac records, they had vinyl pressings. Many of these were 16 inches in diameter. They had the same size grooves as the 78's but ran at 33 1/3 RPM so that you could put 15 minutes of program on each side, adding up to the length of the old radio shows, one-half an hour for both sides. When visiting Camp Irwin in the desert north of LA on business many of us, electronic engineers and some hams, visited the camp broadcasting station. Every military camp had its own station which broadcasted through the ac power lines. Most of the time they played these 16 inch "transcriptions" as they were called which were distributed by the Armed Forces Radio Service. Al the old programs were on these large vinyl records and I was able to scrounge a few to take home. Of course I had to build a 16 inch turntable to play them, but that's another story.

But these didn't have the fidelity I would have liked. Part of the problem lay in the telephone lines used to transmit radio across the nation. Ordinary telephone lines generally do not have a frequency response above 3000 Hz. But the Bell people put two of these lines together to provide about twice then bandwidth and leased these lines to all the networks. The bandwidth was satisfactory for AM radio but fell far short of the capabilities of FM. Unfortunately for me most of the big bands were playing in New York and Chicago and by the time they were transmitted to KHJ they sounded pretty bad, at least to a Hi-Fi fan like me.

But I was in luck. Once a week Don Lee put on a live music program from their studios in Hollywood that went by RF link direct to their transmitter. This program played popular and semi-classical music and used a format that satirized classical music concerts. They called it Music Depreciation and had a very funny host. But the music was great, the orchestra was first class, and famous people were guests like Les Paul on guitar and Andre Previn on the piano (he's now a famous symphony orchestra director). And, don't forget my friends and I could hear the full audio range as good as today's CD's. Well almost as good!

I was fortunate to have another source of high fidelity material through a friend who had connections with the Hollywood recording studios. You must remember that magnetic tape was unknown in America in 1945 except perhaps to our intelligence services for the Germans had magnetic recorders all during the war. So all recording was done "direct to disc" as they used to say. Very sophisticated recording machines or "lathes" were used to move a cutting head across the spinning disc with a V-shaped diamond cutter. These acetate discs had an aluminum base, except towards the end of the war when glass was used instead of aluminum, the latter being a scarce war material. I still have some glass records, the majority being broken over the years.

Incidentally, it took an amplifier with 100 watts or more of power to drive the cutting heads. This was supplied by large amplifiers using small transmitting tubes such as the 807. Studio control rooms were filled with racks full of these monsters.

Since the recordings were made from the performers direct to disc there was no way one could edit and if the "cut" wasn't up to perfection the performers just had to try again. So now and then I got a rejected disc bootlegged out of the studio by my friend. These records had very little scratch noise, specially when they were new, and I built special turntables with low rumble (the bane of the record changer) to play them. In this way I was able to have music in my room with the fidelity of the LP's of the '60's while everyone else had to be content with scratchy shellacs.

# Swap Shop

- FOR SALE: Thousands of tubes, hundreds of radio parts, panels, meters, surplus, etc. R5-D3 electronic surplus, Bob Lee, 9770 S.E. Stanley Ave., Milwaukie, OR 97222, (503) 513-0410
- WANTED: The INGRAHAM man wants radios with wood Ingraham cabinets. If you're not sure if it's an Ingraham, call Ed Cook in Vancouver, (360) 573-1439, or e-mail "hopopco1@attbi.com".
- FOR SALE: A wide variety of radios at http://radiogalerykent.com. Charlie Kent
- FOR SALE: \*1938 Stromberg Carlson console. \$110. Call Tony at 360-944-8489 or ranft@saw.net

FOR SALE: \*Tubes, tested except the 807s.

2	1L6	\$20 ea.	4	6V6	\$5 ea.
2	6L6 metal	\$20 ea.	1	NOS 45	\$70
1	NOS 6L6	\$45	2	45	\$35 ea.
1	6MJ6	\$35	1	NOS 83	\$20
1	6JE6	\$15	6	807	\$3

And more in tube caddy — or whole lot for \$225. Contact Damon Vandehey, (503)259-9129.

- FOR SALE: \*Grunow console model 1080 "Super Teledial" chassis 10G, very nice working radio with a beautiful cabinet,\$150. Call or write for more details, Vance 541-753-3356 or vdaberko@fastmail.fm
- FOR SALE: \*\*Complete issues (almost) of Sam's Photofacts #500 through #1000.

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+++ $65.00 +++ Rudy Z. 503-255-2227
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- WANTED: \*ALLIED RADIO & LAFAYETTE CATALOGS from 1959-1968. Jerry Talbott Phone (503-649-6717) or E-mail (jerryt@easystreet.com)
- WANTED: \*\*Chassis for a Majestic Grandfather clock radio or Majestic model 15. Also need a chassis and speaker for a Philco cathedral, preferably model 81. Pat Kagi, 360-694-6149
- FREE: \*SAMS photofacts number 1000 and above to complete your collection. Please let me know if anyone wants these, else they will be recycled. Pat Kagi (360)694-6149 or (503)450-6078.

## **Leads and Needs**

See the "Leads and Needs" section of the meeting minutes.

Questions about restoration of vintage radio? Want to know what a particular "Radiola" model looks like? Want to know how to clean & polish Bakelite or Catalin? Visit radiolaguy's web site often for this information plus lots of other interesting displays, photo's, virtual museum plus lots of other information on vintage radio and television. Oh, yes, there are items for sale as well and NVRS members get a substantial discount on most of these items.

Thank You, Sonny the Radiola Guy

Visit my vintage radio web site: http://www.radiolaguy.com

# The Last Page

This feature appears when your editor has run out of other useful information and needs just one more page! This one is fun, though. Last month, Gordon Ormsby mentioned that he used tubes for ornaments and gave some instructions. As an editorial aside, I mentioned that several years ago George Kirkwood had tied ribbons around miniature tubes and decorated a tree with them for one of the club's Christmas parties. Here is a photo of a couple of those decorations:



# Member Information

Just in case we don't have your most current member information, pleas
take the time to send the information requested on this form.

Name*:
Mailing Address*:
City, State, ZIP*:
Ham Call Sign:
E-mail:
Phone:
Collecting Interest (e.g. Battery sets, consoles, clock radios, etc.):

Mail this sheet (or something like it) to Rick Walton at the society's mailing address:

The Northwest Vintage Radio Society

Post Office Box 82379

Portland, Oregon 97282-0379

or e-mail the information to rwalton@easystreet.com.

<sup>\*</sup>Information we must have to be able to send you your Call Letter. The rest is optional, but we hope you'll share it with other club members.