

The *Call Letter*

September, 2011
Vol. 37 — No.9



Celebrating over **35** years in print!

The Northwest Vintage Radio Society

Post Office Box 82379
Portland, Oregon 97282-0379

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 \$25.00 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.

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With each issue of the *Call Letter*, we remember Jim Mason, a charter member of the society who remained active until his death in 1998. A generous bequest from Jim's estate ensures the vitality of the Northwest Vintage Radio Society, and continued publication of the *Call Letter*.



Society Officers for 2011:

President	Dick Bixler	(503) 690-2557 rf2af@comcast.net
Vice-President	Tony Hauser	(503) 397-0074 abhauser@aol.com
Treasurer	Cliff Tuttle	(503) 666-7005 kiptuttle@comcast.net
Recording Secretary	Liles Garcia	(503) 649-9288 landn2@frontier.com
Corresponding Secretary	Mike McCrow	(503) 730-4639 tranny53@frontier.com
Board member at large	George Kirkwood	(503) 648-4809 radiogeo@hevanet.com
<i>Call Letter</i> Editor	Rick Walton	(503) 701-3260 rewalton46@gmail.com
Librarian	John Bucholtz	(360) 693-7135 Bucholtz3049@comcast.net



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On the cover: Bill Weigel displayed this “Nipper” statue at the August meeting. The picture is too nice not to place it on this month’s cover.

The next meeting is September 10, 2011.

Monthly Feature: Character Radios (see the meeting minutes for an explanation)

Visit our web site at <http://nwvrs.org>.

Next Call Letter deadline: September 29, 2011.

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 or services 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

As I pointed out last month, I won't be at the September meeting, but taking part in my younger daughter's wedding.

My thanks to Art Redman and Dave Wise for providing us with two great articles. Art describes the activities at a 1926 Radio Expo in Portland sponsored by the Oregon Radio Trades Association. Dave regales us with another of his tales of restoration, this time a Fluke true-RMS meter.

President Dick Bixler reminds us that the Fall Swap/Sale is just around the corner. I've included the flyer for the meet on the inner back cover.

At our August meeting, we discussed the possibility of starting a Facebook group page for our society. Personally, I think it is a great idea. It can provide a unique means of staying in contact with members. My personal experience with Facebook has been good, especially with the group pages. My ship reunion association has one, and it has gotten participation like no other method has, especially from younger members. I think we should seriously consider it.

To close out here, I want to announce that I plan to step down as *Call Letter* editor at the end of this year. I've been at this for almost fifteen years now, and I think it is time for me to let someone else take over. There are several reasons that I want to step down, and I don't have space here to enumerate them all. But I would like for the conversation to begin about replacing me. It would be wonderful if, in December, we could announce a new editor along with the new slate of officers for next year.

Vancouver's Talk Station

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1550talk.com

NWVRS Meeting Minutes

Recorded by Secretary Liles Garcia

President Dick Bixler called the August 13, 2011 meeting of the NorthWest Vintage Radio Society to order at 10:00 AM. Liles Garcia read the minutes of the July meeting; they were approved as published in the August Call Letter. We did not have a Treasurer's Report today. John Bucholtz said that the library is doing well. Carlos Soto attended today as a guest with his grandfather, Don Walkenshaw. Members gave Carlos a round of applause. There were 46 people at our meeting today.

New Business

NWVRS Website — Pat Kagi asked the group for information about other organizations, good parts sources, and other interesting and helpful radio-related information. He would like to add this information to our website.

Society Jackets — Dick Bixler needs to know how many people would like a NWVRS jacket.

Election Of Officers — Dick reminded us that our election of officers will be at our December meeting; and nominations for officers will be at our November meeting. If anyone is interested in an officer's position in our Society, please tell someone on the Board of Directors.

Outreach Ideas — Members discussed the idea of using Facebook to gain more outreach and more communication. Another idea is to have a contest among members to increase interest and participation.

Leads and Needs

Damon Vandehey needs a laptop computer, contact him for more information. Jim Harper has two radios that are for sale. He has a Crosley grandfather clock radio, and an Atwater-Kent Kiel table radio. Bill Meloy brought some radios for sale today. Robbie Robinson has a Zenith 8S563 console for sale. George Kirkwood would like to find the sheet music for the song "The Perfect Song."

Program Topic

The Program Topic for today is "Radio Oddities." Eight members showed and discussed the items that they brought.

The program topic for August will be "Character Radios", character figure radios or radios having famous character's nicknames, i.e. "Mae West," "Walton," "Charlie McCarthy," "Mickey Mouse," etc.

The meeting was adjourned.

...from the Pres.

Summer's about over... time to start thinking about the October swap/sale.

And thinking about getting things ready, Lloyd Godsey, our NWVRS brother who transplanted himself to Arizona and who is now terrorizing the Phoenix antique radio gang sent me some restoration links that some might find helpful

http://k9sth.com/uploads/Boat_Anchor_Paints.pdf

<http://groups.yahoo.com/group/HallicraftersRadios/database?method=reportRows&tbl=2>

Lloyd also included another good one plus his own well organized Lloyd's Dipsy dumpster and his antiqueradioarchives.

<http://antiqueradios.com/forums/index.php>

<http://www.lloydsdipsydumpster.com/>

<http://antiqueradioarchives.com/>

Those who want to say thanks and hello can reach him at his web address: KK7IZ@cox.net

Our super-active and highly talented member Sid Saul will be presenting his 10-minute antique radio presentation in the form of a 10-minute video presentation. Sid's a live wire and though a newer member, is a real inspiration to some of us whose power supplies are getting a bit low. Thanks again Sid.

And to prove our Society's radioactive interest, John Bucholtz our esteemed Librarian supplied me with a 12-year report on what we've been reading from the club library.

560 items checked out and the interest areas are:

General Radio price guides (pictures and prices)	343
Radio theory and repair	87
Communication radios	13
Television	5
Loudspeakers	6
Radio History	105
Entertainment	1

That's a total of 500 checkouts and it's all thanks to John Bucholtz's faithful attention to our treasured tomes. As in the past, thanks from all of us, John.

And in that connection our faithful member Leonard Cartwright is proposing a massive donation of radio books to our club library. Some which are duplicates of what we already have may be available in some fashion to NWVRS members in good standing,

See you all at the Abernethy grange, Saturday September 10. Dick

NWVRS Calendar of Events

Most of the hamfest and ham swap meet information comes from: PNW Hamfair web page at www.n7cfo.com/amradio/hf/hf.htm

September 10 NWVRS monthly meeting 10 am; tailgate swap 8:30.

September 24 The 1st Annual Clark County ARC Ham Fair. Vancouver, WA. <http://www.w7aia.org/> or contact clarkcountyhamfair@w7aia.org

September Spokane Hamfest. University High School, 12420 E 32nd Ave, Spokane Valley WA 99216. For information contact Bob, AC7GP ac7gp@hotmail.com.

October 8 NWVRS Fall Swap/Sale at Aurora American Legion Hall, Aurora, Oregon.

October Swaptoberfest. Mid-Valley ARES. Polk County Fairgrounds, Rickreall, OR. Contact: Chris Portal, W7CLP (503)559-7837. w7clp@arrl.net 520 South Pacific Highway. <http://www.swaptoberfest.net>

November 12 NWVRS monthly meeting 10 am; tailgate swap 8:30. Nomination of officers for 2012.

December 10 NWVRS monthly meeting and annual Holiday Party 10 am. Election of officers for 2012.

The 1926 Pacific Radio Exposition

By Art Redman

The 1925 Radio Exposition held on October 15th to 18th in Portland was so successful that the Oregon Radio Trades Association, headed by President Joseph Hallock, decided to host a much larger event in 1926 at the Public Auditorium located at SW Third and SW Clay. The event lasted from September 21 to 25 and had 86 booths with over 45 different exhibitors.

The big innovation in radio at the Exposition was the single control receiver made by Atwater-Kent. Nine dealers in Portland sold their models 30 and 32, including the Chown Hardware Company and Grand Avenue Electric Company, which featured ads in the souvenir program.

The Freeman’s Radio Shop on Sixth Avenue marketed the Kellogg model RFL-7 single control receiver. The hardware firm of Marshall Wells marketed the single dial Crosley models 5-50, 5-75, and 5-90.

Battery dealers, the Willard Storage Battery Company, Pacific States Electric, and the E.L. Knight Company, displayed Gem radio tubes for a dollar, Eveready and Bull Dog radio batteries. Philco battery eliminators were demonstrated by the L.C. Warner Company along with several Fada brand receivers and the Cunningham type 300A detector tube.

The Meier and Frank Department Store had five booths featuring Grebe, Radiola, Atwater-Kent, Sonora, and Zenith brand radios. The Stubbs Electric Company had four booths marketing the Grebe Syncrophase model and Kolster-Brandes brands. J.K. Gill also advertised Stromberg-Carlson battery consoles and the new Stromberg-Carlson cone speaker with violin soundboard. The Sherman, Clay Company displayed the Gilfillan “shielded neutrodyne”, Victrola-Radiola combinations and the Kellogg inductance tuned shielded radio. Both Velvetone and Stewart-Warner had booths at the show. The Beaver Electric Company demonstrated Freed-Eiseman sets.



The most prominent Oregon manufacturer was Hallock and Watson who introduced their two dial All Wave Five model as being “unmatched for tone”. This was the company’s last model and did not sell because the public desired radios with one dial tuning. Hallock and Watson gave up

radio manufacturing to concentrate on making transmitters for radio stations and the Portland police department.

Thomas J. Langhorne was there at booth 79 to market his latest superhet. Langhorne later gave up control of the firm to C.S. Finley. The Langhorne Radio Company moved from the old Commonwealth Building to 13 NW Sixth Avenue in 1928 and the firm was out business by 1929. The two other 1926 Oregon radio companies, the Long Radio Works and the Northwestern Radio Company, had no presence at the Exposition.



Radio parts dealer, the Operman Radio shop on SW Salmon Street, advertised the Karas Harmonik audio frequency transformers. Bob Smith “the radio service man” had a booth marketing his services located on SE Belmont Street. The Lectro Manufacturing and Sales Company and the Precision Manufacturing Company were there to sell their locally made parts and crystal sets along with nationally advertised radio receivers.

One of the most popular booths was the Portland Broadcast Listeners booth where a free booklet “How To Yourself Obtain Better Radio Reception” was offered. The association was located in the Oregon Journal building and was organized for advancing radio reception in Portland and vicinity through the elimination of all controllable interference. Experts from the Oregon Institute of Technology demonstrated the causes of radio interference and static.

The Radio Headquarters shop on SE Hawthorne attracted crowds by offering magic keys to win a fine radio set. Also not to be overlooked was five days of live broadcasting from the \$5000 Public Auditorium radio show Crystal Broadcast studio that featured over 200 Pacific coast artists and two days of live shows by the Hoot Owls.

The exposition was a huge success with over 15,000 people attending. There was another radio exposition held in September 1927.

New Caps & Shirts!

New caps and new shirts are available. Caps are \$10, and shirts are \$22 for M & L sizes, \$24 for XL. If anyone needs a hat or polo shirt, and would like to pick the items up at the July meeting, they should contact Tony Hauser at 503-438-0297 or e-mail their request to abhauser@aol.com so Tony can arrange for someone to take the items to the meeting.



Photo Display

Photos by Rick Walton

“Radio Oddities” were the feature for the July meeting. There were too many different items to try to name each one.



Blake Dietze



Brian Toon



Bill Weigel



George Kirkwood



Jeff LaDoe



Jim Harper



Kurt Torgerson



Alan Shaddock



Sonny Clutter

Play it again, Sam!

by Dave Wise

Ballantine 323 True RMS Voltmeter

A surplus house dumped a bunch of these all at once half-a-year ago, and I picked one up very cheaply. This model was introduced in the late sixties or early seventies (my manual says 1971), and are still in production. I was intrigued by Ballantine's boast of "new technology", supposedly superior to the HP 3400A's "old-fashioned" thermocouple servo, but they never said just what it was. I only found out by ordering a manual. Not from Ballantine – they want like \$100! I got a used paper copy for about what I spent on the instrument.

At high voltages, solid-state diode detectors operate linearly – put in X volts AC, get kX volts DC out. But down at the millivolt level, they have a "square law" response. For X millivolts in, you get kX^2 millivolts out. Ballantine capitalized on this to make their true-RMS meter. They put the input signal through a step attenuator, and applied it to a special, 100% unobtainium "unitunnel" or "back" diode. This is a tunnel diode operated backward, on the side of the curve without the TD's familiar peak and valley. Turn-on voltage is pretty much nil. The DC output is just a few millivolts too, so they brought it up to meter-driving level with a chopper amp. I seem to keep running into these. The DC output is proportional to the square of the input AC, but it's a pain in the neck to take the square root of an analog signal, so they built a special meter movement, with the magnetic pole pieces shaped so the meter deflection is proportional to the *square root* of the current. Actually, it's not just square-root responding, it's logarithmic too. I'm afraid to try visualizing those magnets, I think my head would explode.

The version I got was equipped for operation away from the AC mains, and of course the rechargeable battery pack – ten "sub-C" Ni-Cads in a neat plastic box - was shot. Replacements are on the way. Meanwhile, since the mains supply will *destroy* the instrument without the Ni-Cads to hold it down (an unforgettable lesson I learned years ago with an ill-fated Telefunken Elite portable radio), I powered it from one of my bench DC supplies, and immediately saw that there was no meter reading. A little bit of probing revealed a shorted transistor in the chopper amp. Every transistor in this thing is "selected" (to get a replacement you have to tell Ballantine what colors the paint dots are, and even whether they're on the top or the side), but due to the simple-minded bias techniques used, I suspect that the only parameter selected for is "beta", so the transistor goes to the intended operating point. That is certainly the case here, because the only signal being amplified is the 94 Hertz output from the electromechanical chopper. In the wideband amp to the left of the diode I would have had to worry about frequency response – the 323 goes to 20MHz, twice the 3400A's rating - but the wideband amp seemed fine, it was just the chopper amp. Not knowing

what the correct beta was, I just popped in a random 2N3904 and measured the collector voltage. Nope, too high, which means that beta was too low, looked like they expected about 350. Next I tried an MPS6521 (left over from the Fluke 887A), and it was close enough at about 400.

Now I got a reading, but it was wrong and unstable. As far as I could tell the diode output was okay, so there was still chopper amp trouble. I discovered that the chopper wasn't getting the correct drive, it was about 85Hz instead of 94 and 40% duty cycle instead of 50. As soon as I tried to adjust it, it settled down; must've been a dirty pot. For good measure I cleaned the switch contacts too.

Then I got good readings – er, on most ranges. On the 30mV and 3V ranges, a peculiar thing happened. On the low side of the range, it read correctly, but as I raised the input voltage, the meter started falling behind. The harder I pushed it, the worse it got. And it was time-varying: as I continued to apply input, the reading drifted down. Then when I cut the input, the meter would peg to the left then slowly drift *back up* towards the correct reading. I probed some more, in the wideband amp this time, since that's where the attenuators are. I discovered that the middle transistor had just a few tenths of a volt on its collector, but it wasn't shorted – instead, a Vcc bypass cap was to blame. Just for kicks I applied 12V and it suddenly behaved. I guess I cleared the short. Turns out that the problem ranges are the ones that put the loudest signal into the amp; when you kick up from 30mV to 100mV, the amp's input is reduced by a factor of 10 and the secondary attenuator on the output goes up by a factor of 3-1/3. I guess the transistor was starved for voltage and was saturating, and the drift was the almost-short-circuit charging or discharging a bit due to the unusual load or lack of it.

And that about did it. Then looking at the schematic, I saw a serious design gaffe. The 323 runs on a 12V battery, but the chopper wants 6V, so they tapped the battery at the halfway point. This would impose dissimilar loads on the two halves, with the result that the more heavily-loaded set of cells were in grave danger of reversal and consequent early death. I spent some time measuring the drain on the 6V and 12V taps and calculating what value resistor to add across the lightly-loaded side to equalize the drain, when at the last minute I discovered that the instrument already had such a resistor, even though its serial number is lower than the manual's. Assuming the load was unbalanced led me to misinterpret my measurements. Judging from the soldering, the resistor had been added after the instrument was sold.

Never assume your patient matches the schematic!

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

FOR SALE: *Zenith Radio model 8S531 8-tube - cabinet in good shape plays well. Call me, Robbie Robbins, at 503-255-3585. I also have a web site for Canadian vintage radio schematics.

FOR SALE: **Two Philco radio/phonos, both are model 46-1201, one restorable, the other for parts - \$20 for both.
Zenith console, model 8A02, 8-tube, minimal effort to restore - \$30.
Contact Bill Meloy (503) 667-8109.

FREE: I wish to place in a good home my 1985 Sylvania TV model # RLC596 PEC1. I purchased it new and it has never faltered. Its Mediterranean cabinet is large, 48 in. long, 31 in. high, and 20 in. deep and is on casters. The 25 in. pic tube is getting soft. The stereo amplifier powers woofer and tweeter speakers on both sides of the screen. Audio sound quality is excellent. Phone Rudy Zvarich at 503-225-2227, or see me at our monthly meeting.

WANTED: Galen Feight is seeking some vintage wheatstone bridges or similar that may have some rotary switches with ten or more positions for the making of a crystal radio. Large contacts above the panel are preferred.

Leads and Needs

Questions about restoration of vintage radio? Visit Radiolaguy's web site often for this information plus lots of other interesting displays, photos, 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>

Radio Service

These members have indicated they are willing to perform radio repairs:

Roger Brown – (503) 693-6089

Bruce Baur - (503)-708-4537, brucebaur@comcast.net

Blake Dietze – (360) 944-7172, wb6jhj@ix.netcom.com

Jack Doyle – (503) 305-8097

Pat Hickman – (503) 887-9015 Web: www.classictubeaudio.com
Email: phickman@comcast.net

Todd Ommert – (503) 246-4141 Web: www.burlingame-radio.com
Email: burltv@msn.com

Tony Ranft – (360) 944-8489 or walterranft@hotmail.com – General repairs.

Dave Wise – (503) 648-0897, david_wise@phoenix.com

If you are willing to repair radios, give your name, phone and/or e-mail, and any comments to the *Call Letter* editor.

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Fall Swap/Sale Flyer

designed by Sonny Clutter

Antique Radio **SALE**



Coming!
to Historic AURORA[™]

Presented by the
Northwest Vintage Radio Society

SATURDAY, Oct. 8th

9 AM 'til 3 PM

American Legion Hall

21510 Main St.

**IN HISTORIC
AURORA, OR**

You'll see & can purchase; vintage wood, Bakelite, plastic, transistor & short-wave radios. Buy 'em all restored or in as-found condition. Hard to find tubes parts, vintage TV's, phono's and other related items will also be available.

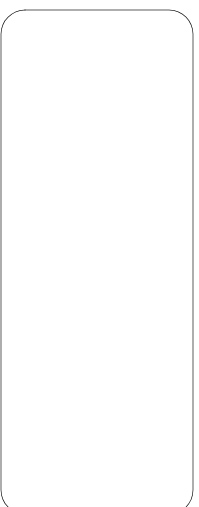
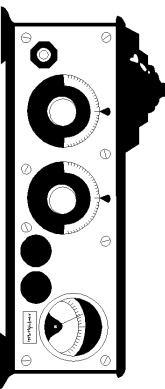


**FREE PARKING
FREE ADMISSION**

for more information, see our
website www.NWVRS.org



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<i>Call Letter</i> Editor	Rick Walton	(503) 701-3260 rewalton46@gmail.com
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**FREE PARKING
FREE ADMISSION**
for more information, see our
website www.NWVRS.org

You'll see & can purchase; vintage wood, Bakelite, plastic, transistor & short-wave radios. Buy 'em all restored or in as-found condition. Hard to find tubes parts, vintage TV's, phono's and other related items will also be available.