

The **Call
Letter**

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Over **30** 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.

Society meetings are held the second Saturday of each month 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).

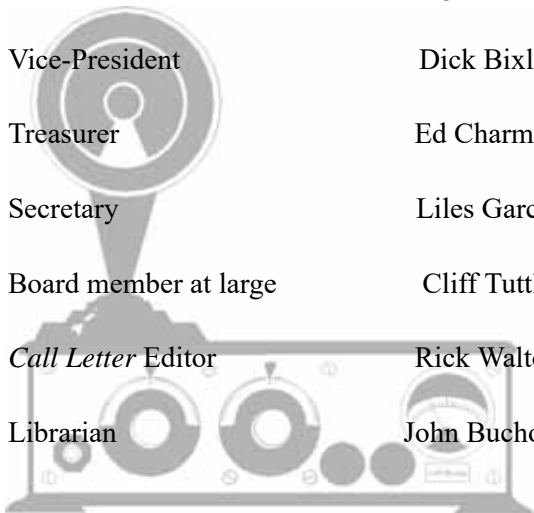
Other Society functions include guest speakers, auctions, radio show, and radio sales which are advertised in the *Call Letter* and are held in and around Portland.

With each issue of the *Call Letter*, we remember Jim Mason, a charter member of the society who remained active until his death in 1999. 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 2007:

President	George Kirkwood	(503) 648-4809 radiogeo@hevanet.com
Vice-President	Dick Bixler	(503) 690-2557 RF2AF@comcast.net
Treasurer	Ed Charman	(503) 654-7387 enamrahc@peoplepc.com
Secretary	Liles Garcia	(503) 649-9288 landn2@verizon.net
Board member at large	Cliff Tuttle	(503) 666-7005 kiptuttle@aol.com
<i>Call Letter</i> Editor	Rick Walton	(503) 656-4104 rwalton@easystreet.com
Librarian	John Bucholtz	(360) 693-7135 BonJonBuck@webtv.net



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On the cover: Artwork from the cover of *Radio* magazine for August, 1924. Like many of his modern counterparts, this young man is finding current technology to be far more interesting than the content of his geography text. His teacher, like *her* modern counterparts, is probably not really fooled by his apparent interest in the text.



The next meeting is on August 11, 2007.

August Feature: Foreign Radios.

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

Next Call Letter Deadline: August 30, 2007.

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 always, this little column is the last piece to be written so that the *Call Letter* (and its editor) can be put to bed.

I'm feeling a sense of detachment this month, having missed last month's meeting. The ship reunion that I attended was a success despite the uncharacteristically cool and wet weather. Fortunately for me, that kind of conflict seldom arises.

I owe Sonny Clutter a debt of gratitude for covering for me as photographer at the meeting. You'll see him listed as photographer for this issue's Photo Display pages. There were quite a bunch of items on display. As Sonny explained it to me, most of them belonged to Brian Toon, and there were just too many to take individual pictures of each item.

This month we continue Mike Parker's "In The Shack" series with the article from the January, 1998 *Call Letter*. Mike describes a 1928 Ozarka set that used tubes that could be powered by an air cell, summarizes how an air cell works, and explains why its characteristics were useful. Mike also mentions that the radio belonged to Speed Feldschau, who was an active member in our society before his death just a couple of years ago.

This month I've included a "Back Page," an occasional feature that fills space when there are few submissions from members. I had hoped to fill the page with an ad for an air cell, creating a tie-in with "In The Shack." Unfortunately, none of the magazines in my collection that might have been from the correct time frame had any ads for air cells. I fear that the ones I needed are still stored away. Instead of using an ad for air cells, I've used a single page of standard radio schematic symbols that I found in the February, 1930 issue of *Radio News*. It is interesting to note how much some symbols have changed since that time, and how little others have.

Jay Johnston has compiled another list of recent acquisitions in "Voilà." It's been a fairly busy month for some. The "Swap Shop," though, is definitely in the summer doldrums.

I look forward to attending the August meeting and regaining that sense of attachment to the club and its activities. Hope to see you there!

NWVRS Meeting Minutes

Liles Garcia, NWVRS Secretary

President George Kirkwood called the July 14, 2007 meeting of the NorthWest Vintage Radio Society to order at 10:00 AM. Liles Garcia read the minutes of the June meeting, and they were approved as printed in the July Call Letter. Ed Charman gave the Treasurer's report, and it was approved as provided by Ed. Members gave Ed a round of applause for his great job as our Treasurer. John Bucholtz reported that the library is doing fine. Sonny Clutter volunteered to work on our Library Committee. Tom Hoskins, Rick Ryan, and Sonny are on our Library Committee. Members gave John a round of applause for his excellent work with our Library. There were 33 people at our meeting today.

Old Business

Swap Meet--Liles recently wrote a letter about Swap Meet networking to our Society's email list. He read his letter to the group. The idea of bringing nicer radios to our Swap Meet's was proposed. Also, renting a space in an antique mall was also proposed. Members discussed these ideas. There will be additional Swap Meet discussion at our August meeting.

New Business

Swap Meet Accident Expense--A Society member was injured at our last swap meet. Members collected \$400.00 at our June meeting to help with medical expenses. Insurance covered the medical expenses; so the money was returned to our Treasurer, Ed. Members voted to put the money into our Society's general fund.

Leads and Needs

Dave Wise needs some help with a wood radio cabinet. He also needs a 6U5 tuning eye tube.

The program topic for our meeting today was "Any HeathKit Item". Members showed and discussed the radios that they brought.

The program topic for our August meeting will be "Foreign Radios".
The meeting was adjourned.

NWVRS 2007 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

- August 11** NWVRS monthly meeting 10 am; tailgate swap 8:30.
- August 12** The 10th Annual Greater Portland Insulator Swap — Location TBA. Always the second Sunday in August. Contact Dan Howard (503)659-3520 e-mail: strains@msn.com.
- August 11** Hamfest and Electronics Flea Market, Radio Club of Tacoma; Bethel Junior High School
22001 38th Avenue East, Spanaway, WA www.w7dk.org
- August 19** Antique Radio Swap Meet — Puget Sound Antique Radio Association. 9 AM to 1 PM. Shoreline museum parking lot. N. 175th & Linden, Avenue, North Seattle. www.eskimo.com/~hhagen/psara/swap.html
- September 8** NWVRS monthly meeting 10 am; tailgate swap 8:30.
- September 22** Spokane Hamfest. (ARRL Washington State Convention). University High School, Spokane, WA 99206. Contact Betsy Ashleman, N7WRQ, n7wrq@aol.com. (509)448-5821. www.kbara.org.
- October 13** NWVRS Fall Swap/Sale at Aurora American Legion Hall, Aurora, Oregon.
- October 14** North Kitsap Amateur Radio Club Hamfair. Bremerton, WA. ARRL sanctioned event. Kitsap Fairgrounds. Info: contact Ron Sefton, N7EM, (360)779-5418, ronsefton@hotmail.com or Horace Ory, (360)779-2215, ory001@comcast.net. www.nkarc.org/hamfest/index.html
- October 21** Swap-Toberfest, Polk County Fairgrounds, Rickreall, Oregon. (Ten miles west of Salem). Info: contact Fred Rodley at n7lqd@aol.com. www.swaptoberfest.net/
- October 27** Mount Baker Amateur Radio Club Flea Market, Lynden, WA. ARRL sanctioned event. Always last Saturday in

October. Info: [contact k7iey@netscape.net](mailto:k7iey@netscape.net). www.qsl.net/k7skw/.

November 10 NWVRS monthly meeting 10 am; tailgate swap 8:30.
Nomination of officers for 2007.

November 4 Maple Ridge, ARC Swap Meet. 12460 Harris Road Pitt
Meadows, Maple Ridge B.C. Canada. [www.qsl.net/
ve7rmr/](http://www.qsl.net/ve7rmr/)

December 8 NWVRS monthly meeting and annual Holiday Party 10
am. Election of officers for 2007.

Photo Display

Photos by Sonny Clutter

What a Heathkit display at the July meeting!







Website Suggestions Requested

Pat Kagi, our new web master, is looking for suggestions for website content. What do you, the members, want to see on the website? Contact Pat and let him know. E-mail him at kagi.pat@con-way.com, or phone him at (360) 694-6149.



Editor's note: This "In The Shack" article is from the January, 1998 Call Letter!

Air Cell Ozarka

At the Dec. 1997 Christmas party and club meeting, Speed Feldschau had a 1928 OZARKA Model 89 Battery Set on display. A merry time was had by all at this event and some excellent radios were on display as usual, as at any of our meetings. But this particular OZARKA radio and the metal and "plaster cast" horn speaker with ornate stand that accompanied it was quite a sensation and both, seldom seen items. An inspection of the apparatus, especially inside the cabinet, told quite a story about what kind of modifications were made to keep a radio operating on batteries in let's say, the early 30's.



OZARKA was one of the more prolific "Sales Backed" radio companies during the 20's and early 30's. You ordered your OZARKA from a local door to door sales demonstrator, not in a store on a showroom floor. The OZARKA company and it's sales "drummers" were both fiercely territorial about their service areas and tended to cover many rural areas, thereby demonstrating their battery sets to many farmers who lived beyond the power lines. OZARKA was founded in 1922 by one J. Matheson Bell, of Chicago, a former merchandising manager for Montgomery Ward. Bell started the "Ozarka Plan", a sales and service program conducted by mail order to the local "factory representative" who was expected to buy the sets individually and sell them by home demonstration. The buyer also could rely on this person, always a local individual of good community standing, to service the set exclusively. The OZARKA Company kept track of its representatives and prospective customers by county names to identify the territories served. Bell claimed that he could teach the plan best to a man who previously knew nothing

about radio and therefore had nothing to “unlearn”! The plan worked very well and by 1927 OZARKA had over 4400 local representatives. The company was somewhat innovative and made a good product. They offered a portable as early as May 1924 and had a self-contained horn speaker radio in early 1925. The company actually gained in business every year, up into and including the first couple of Depression years (VIKING), but mysteriously folded in 1932.

At the meeting, looking into Speed's OZARKA 89, I noticed two interesting things. First of all, I asked him if he found it locally and he said yes. The set just looked like it had been out on a farm since 1932 and then maybe, put in storage for many years untouched. Second of all, everything that had been done to the set inside looked like it was done many years ago. This included a modification that I would like to mention. Originally the set was designed for battery operation on the usual 5-volt filament system using type 201-A tubes. However, this radio contained all type 30 triodes with a type 31 power amplifier triode for the final audio stage. These 2-volt tubes were introduced around 1930, for battery sets using the new “Air Cell” battery rated at 2.5 volts. Judging from the amount of “crud” on the type 30's in Speed's set, this conversion was probably done back in this period of time. It was a very logical conversion. After all, the radio just needed 4 prong triodes – it cared not what the filament voltage needed to be. The Air Cell battery was extremely trouble free compared to dry cells, which were always running down, or to a bulky, messy 6-volt battery. It could be called a very typical conversion of the time and I suspect this was done to many older battery sets still in use in the 1930's.

What is an “Air Cell”? This revolutionary design was a product of considerable research to get a trouble free, constant voltage, filament battery. The battery used oxygen in the surrounding air as a depolarizer instead of the manganese oxide paste used to depolarize ordinary dry cells. A newly developed porous carbon plate extracted oxygen from the atmosphere and combined the new oxygen with hydrogen on a zinc electrode to form water inside the cell. This water then combined with a sodium hydroxide or caustic soda electrolyte that was pre-installed in the battery. The Air Cell was kept tightly sealed until put into use, providing a very fresh battery when opened. The internal resistance was kept to a minimum by this process and the battery, rated at 2.5 volts new, would never fall below 2 volts, the rating of the type 30 tube, until just before discharge. The cell would then suffocate by losing it's ability to suck in oxygen. After that, you tossed it. The Air Cell was said to provide 0.25 amperes for 2400 hours and supply an almost constant voltage until it expired. The cost was claimed to be half that of equivalent dry cells for a given radio set. The constant voltage feature was designed to take out the

“guesswork” and wrong voltage problems associated with filament rheostats. New battery radios were built, just for Air Cells. Eveready used the name Air Cell, others used “1 Year A Battery”.

Today, the real challenge would be to find an Air Cell that had never been used, break open the seals and see how well it worked! Speed decided at the meeting that he was going to keep the OZARKA after all. If you find a new Air Cell...give Speed a call...give ME a call! You must be in a time warp!

QSO you next time.... IN THE SHACK

Acknowledgements:

1. Book, RADIO MANUFACTURERS OF THE 1920'S, Vol. 2, Alan Douglas, 1989, Vestal Press, Vestal, NY: Ozarka Information.

2. Book, RADIO PHYSICS COURSE, 2nd Edition, Alfred A. Ghirardi, 1933, Radio & Technical Publishing Co., New York, NY: Air Cell Battery Information.

Voilà

...new and recent finds by NVRS members

Compiled by Jay Johnston

Vance Daberko —A most intriguing AM/FM table radio marked “GLF”. I learned that this stood for Grange League Federation, and was specially made by North American Philips for GLF in 1948. It is a highly sensitive radio designed for FM reception in rural areas, and even has a tuning eye.

Also... Zenith 7S529, Crosley 52TL, seven Zenith TransOceanics, two TransOceanic clones (Halcrafters and Stromberg Carlson), a Roberts Radio shortwave (made in England), 2 Oregon Forestry Service communication radios (horse-talkies), Kenwood R2000 communications receiver.

At an estate sale in Sweet Home, OR, I acquired a number of tubes, some parts radios, a Mission Bell model 46, three small audio amps, and some test equipment.

Pat Kagi —GE M-81 Tombstone, Stewart Warner 9160 Bakelite tabletop, Silvertone 4586 console, Zenith 471 12-tube shutter dial, Philco 37-610 Bullet, Philco 610 Tombstone, Philco 42-400 11-tube console, Philco 42-360 console, Zenith 569 12-tube shutter dial console

Rick Walton —A Monarch “Hi-Fi Master” small plastic radio of Japanese make, this one beige in color.

Send word of your latest find to Jay Johnston, withat@msn.com, or by post at 1451 SW Market St., Portland, OR 97201-2555.

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: **I need the base and driver for a Music Master horn speaker (the one with the wood bell). An example of the base can be seen here: <http://www.radiolaguy.com/images/hornSpeakers/MusicMaster-bs.jpg>. Thanks, Sonny the Radiola Guy.

Radio Service

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

Roger Brown – (503) 693-6089

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

Tony Ranft – (360) 944-8489 or ranft@saw.net – 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.

The Northwest Vintage Radio Society is not responsible in any disputes arising from services provided by members listed here. By common agreement of the board of directors, the buyer assumes all responsibility for the satisfaction of any transaction.

Leads and Needs

Questions about restoration of vintage radio? 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 Back Page

This page of radio schematic symbols comes from the February, 1930 issue of *Radio News*.

STANDARD RADIO SYMBOLS			
	AERIAL		AUDIO-FREQUENCY INDUCTOR (USUALLY A.F. CHOKE)
	COIL ("LOOP") AERIAL		IRON-CORE TRANSFORMER
	GROUND		PUSH-PULL AUDIO-FREQUENCY TRANSFORMER
	COUNTER-POISE		FREQUENCY METER (WAVEMETER)
	VARIABLE CONDENSER		FIXED RESISTOR
	VARIABLE CONDENSER (MOVING PLATES INDICATED)		VARIABLE RESISTOR
	TRIPLE VARIABLE CONDENSER (SAME STYLE FOR DOUBLE OR QUADRUPLÉ)		VOLTAGE DIVIDER (POTENTIOMETER)
	SEPARATE VARIABLE CONDENSERS OPERATED TOGETHER		FILAMENT BALLAST
	FIXED CONDENSER		THREE-ELEMENT VACUUM TUBE
	CONDENSER BLOCK		THREE-ELEMENT VACUUM TUBE, A.C. HEATED-CATHODE TYPE
	R.F. INDUCTOR (MAY BE R.F. CHOKE)		SCREEN-GRID TUBE
	R.F. INDUCTORS, COUPLED. (R.F. TRANSFORMER)		SCREEN-GRID A.C. TUBE
	INTERMEDIATE-FREQUENCY TRANSFORMER OF A SUPER-HETERODYNE.		HALF-WAVE RECTIFIER TUBE; FILAMENT TYPE
	CONTINUOUSLY VARIABLE INDUCTOR ("VARIOMETER")		FULL-WAVE RECTIFIER TUBE, FILAMENT TYPE
	TAPPED INDUCTOR		FULL-WAVE RECTIFIER, FILAMENTLESS TYPE
			TWO-ELEMENT VOLTAGE-REGULATOR TUBE
			THREE-ELEMENT VOLTAGE-REGULATOR TUBE
			PHOTO-ELECTRIC CELL
			NEON GLOW TUBE
			CONNECTION BETWEEN WIRES
			NO CONNECTION
			TELEPHONE JACKS
			FILAMENT SWITCH (S.P.S.T.)
			LIGHTNING ARRESTOR
			ELECTROLYTIC RECTIFIER
			VOLTMETER
			AMMETER
			CRYSTAL DETECTOR
			PIEZO-ELECTRIC CRYSTAL
			FULL-WAVE DRY-ELECTROLYTIC RECTIFIER
			TELEPHONE RECEIVER
			ELECTRO-DYNAMIC SPEAKER
			BATTERY (POLARITY INDICATED)
			FUSE
			BINDING POST
			MICROPHONE TRANSMITTER
			D.C. GENERATOR
			ALTERNATOR
			TRANSMITTING KEY
			LAMP
			ARC
			BUZZER
			THERMO-ELEMENT
			PHONOGRAPH PICK-UP, MAGNETIC TYPE
			LAMP-SOCKET PLUG, 110-VOLT TYPE
			PLUG RECEPTACLE 110-VOLT TYPE
			HEAVY DOTTED LINES TO INDICATE GROUNDED SHIELDING
			THREE CIRCUIT TUNER