



OK Vintage Radio Collectors

BROADCAST NEWS

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About OKVRC

Oklahoma Vintage Radio Collectors (OKVRC) publishes *Broadcast News* monthly for the presentation of historical information and enjoyment of club members and friends.

Broadcast News always welcomes submissions of articles on subjects of interest to radio collectors and restorers, and club activities news.

Send Articles to:

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Unless otherwise noted, articles can be reprinted freely, as long as proper credit and reference is given. Electronic copy of articles can be obtained from the editor of *Broadcast News*.

OKVRC MEMBERSHIP

You are invited to join us in our celebration of Vintage Radio by sending your \$15 annual membership fee by check to:

OKVRC
PO BOX 50625
Midwest City, OK, 73140-5625.

Membership payment also accepted at any of our monthly meetings and our semi-annual club swap meets.

If your membership has expired, you are in jeopardy of being dropped from the *Broadcast News* distribution list, so please send in your dues today.

PRESIDENT'S PAGE

Jim Collings

Well, it looks like the hot weather is here! But don't let it stop you from attending our next meeting. It's at the Sonoma Lake Clubhouse, 1712 NW 159th St, Edmond, OK. The meeting officially starts at 7 PM with dinner before that at 6 PM. This month's topic will be Shortwave Radios, which can include any receiver or tuner that receives shortwave frequencies.

Shortwave became popular about 1933. That's when manufacturers added shortwave bands to their sets. Happenings in Europe had people's attention, and they wanted to hear foreign stations to keep up with world news. Many citizens were descendants of people who came to America during the industrial revolution of the early 1900's, thus they had foreign ties. This change to include shortwave bands is fairly obvious when studying cathedral radios. In 1933, all

the larger sets had the extra bands, and commanded a higher price. The trend continued until after WWII, with the higher end receivers of all types including shortwave bands. Of course, amateur receivers of all vintages had shortwave bands, and add a different perspective to radio collecting. We should have some interesting sets at the meeting. Bring yours! As usual, there will be a donation auction at the end, so bring something to be sold to benefit the club.

At the August meeting, we need to have our annual election of officers, so if you would like to serve the club, please let me know. Also, next month for the *Broadcast News*, I expect to review the [MARC Extravaganza meet in Kalamazoo, Michigan](http://www.thevee.org/) (<http://www.thevee.org/>).



*Report for the OKVRC June 9, 2018 Meeting**Jim Tyrrell*

I know it's June every time I step outside in the midday heat, and realize summer is just getting started. It's going to be expensive to pay my electric bill with AC running so much, and when I look around my house at my antique radio collection I am struck by the fact that the original owners of almost all of my radios didn't have air conditioning at the time they bought them, and may never have had it. But you don't miss something you never had, and people were a bit tougher back then!

The weather was sunny and hot as about fifteen club members, spouses and guests gathered for our usual second Saturday of the month OKVRC meeting at the Sonoma Lakes subdivision clubhouse in Edmond. Guests began arriving before 6:00 PM at the clubhouse, and we found that the small parking lot out front was almost full due to folks in the neighborhood using the swimming pool out back. But we all managed to squeeze our cars in and went inside to hold our meeting. Once again club members Ray and Dorothy Cady ordered our dinner, this time we had Chinese food. It was excellent, and there was enough left over to take home for those that wanted it. And at the same great price of five dollars a person!

After dinner Club President Jim Collings called the meeting to order and after a few announcements, we began the night's program. The subject was one I don't think we have ever done before: FM radio. Every radio collector knows that

with the exception of a few specialty sets, radios in the first decade of the broadcast era (1920-1930) could receive only Amplitude Modulation in the 550-1600 KHz range. In the thirties, radio makers



began adding shortwave AM bands so listeners could monitor international radio stations, public service, marine, air and ham radio bands, all of which could be found at frequencies ranging from just above the broadcast band up to 30Mhz.

Both broadcast and higher AM frequencies suffered from the same problem: the tendency of AM receivers to pick up and add to the signal all kinds of external noise and static. It would be up to

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Report of June 9, 2018 Meeting Continued

[Edwin Howard Armstrong](http://www.columbia.edu/cu/alumni/Magazine/Spring2002/Armstrong.html) one of the (<http://www.columbia.edu/cu/alumni/Magazine/Spring2002/Armstrong.html>), greatest radio engineers of all time, to develop Frequency Modulation. FM not only got rid of static, it improved sound quality so dramatically that almost all musical programming has moved to FM, leaving little but sports and talk radio for we collectors to listen to on our AM sets!

The fascinating yet tragic story of the development of FM (Armstrong took his own life) is beyond the scope of this brief article. For a very readable account, see chapter 10 “Armstrong and the FM Revolution” of Tom Lewis’s outstanding book, “Empire of the Air.” And if you want to seriously dig into the technical details of FM, OKVRC member Dorothy Cady has reprinted the classic book “FM Transmission and Reception” by John Rider and Seymour Uslan. It belongs in every radio collector’s library.

Club members brought in a wide selection of AM-FM receivers to share. Ray Cady brought in a couple of radios, one from beginning of the tube era for FM, a 1948 Truetone 7 tube receiver, and one from the end of the vacuum tube era, a 1964 Zenith clock radio.



Jerry Brown showed us a General Electric model 408 AM-FM set from 1950. Jim Ray always brings us unusual and rare sets, and tonight was no exception. We got

to see one of Jim’s European sets, a 1961 Blaupunkt model 2253 AM-FM-SW radio. (Image on Page 2.) Jim also showed us a nine-tube Philco model M1001 stereo AM-FM radio, with a monopole antenna, and unusual feature on a non-portable radio. Club member Ron brought in 1960 Harmon-Kardon FM-only receiver from 1960, along with a Citation III-X tuner. Jim Collings brought in a Zenith Royal model 51 portable AM-FM receiver, and your club secretary brought in two RCA AM-FM receivers, a 1952 model 1-R-81 in a plastic cabinet, and a 1946 model 68R3 in a wood cabinet. Both of these sets reside in my kitchen, and get listened to a lot when I am cooking or cleaning.

Jim Collings then hooked up an old school phonograph and we listened to a pair of funky old 78 RPM records, “Television” by Zeke Manners and his band, and “My Radio Man” by Carroll Chappel. They were fun to listen to, but I doubt they won any Grammy awards!

We finished up the night with our usual junk auction. A military grade aluminum electronics cabinet, a Sylvania clock radio, an Emerson AM radio, a 1934 Popular Mechanic magazine, and a radio history book all found new homes.

Thanks to everyone who came to the meeting, especially those who brought sets and to Ray and Dorothy for the meal.

See you next month!



FM Radio Channel Assignments in the U.S.

In the United States, frequency-modulated broadcasting stations operate in a frequency band extending from 87.8 MHz to 108.0 MHz, for a total of 20.2 MHz. It is divided into 101 channels, each 0.2 MHz wide, designated "channel 200" through "channel 300". In actual practice, no one except the FCC uses these channel numbers; the frequencies are used instead. (Stations that broadcast on 87.7 MHz are in actuality licensed as television stations.)

To receive a station, an FM receiver is tuned to the center frequency of the station's channel. The lowest and almost-unused channel, channel 200, extends from 87.8 MHz to 88.0 MHz; thus its center frequency is 87.9 MHz. Channel 201 has a center frequency of 88.1 MHz, and so on, up to channel 300, which extends from 107.8 to 108.0 MHz and has a center frequency of 107.9 MHz.

Because each channel is 0.2 MHz wide, the center frequencies of adjacent channels differ by 0.2 MHz. Because the lowest channel is centered on 87.9 MHz, the tenths digit (in MHz) of the center frequency of any FM station in the United States is always an odd number. . . . There are only two stations in the United States (KSFH, a 10-watt student station in Mountain View, California; and CSN International translator K200AA in Sun Valley, Nevada) licensed to operate on 87.9 MHz, both because they were forced off of other channels. Therefore, in effect, the FM broadcast band comprises only FM channels 201 (88.1 MHz) through 300 (107.9 MHz).

Originally, FM stations in a market were generally spaced four channels (800 kHz) apart. This spacing was developed in response to problems perceived on the original FM band, mostly due to deficiencies in receiver

technology of the time. With modern equipment, this is widely understood to be unnecessary, and in many countries shorter spacings are used.

FM stations in the U.S. are now assigned based on a table of separation distance values from currently licensed stations, based on station "class" (power output, antenna height, and geographical location). These regulations (see Docket 80-90) have resulted in approximately double the number of possible stations, and increases in allowable power levels, over the original bandplan scheme.

The U.S. is divided into Zone I (roughly the northeastern quarter of the U.S. mainland, excluding the far northern areas), Zone I-A (California south of 40 degrees latitude, U.S. Virgin Islands, Puerto Rico), and Zone II (all other locations). The highest-power stations are class C in zone II, and class B in the others. There are no B stations in zone II, nor any C stations in the others.



High power is useful in penetrating buildings, diffracting around hills, and refracting for some distance beyond the horizon. 100,000-watt FM stations can regularly be heard up to 100 miles away, and farther (e.g., 150 miles) if there are no competing signals.

https://en.wikipedia.org/wiki/FM_broadcasting_in_the_United_States



OKVRC Classified Ads



√ WANTED

Tubes and Tube-type Amplifiers

Jim Collings, 14704 Carlingford Way, Edmond, OK 73013 (405)-755-4139.

Briggs & Stratton (BASCO) radio items

Crystal radio, tube sockets, A-B-C power supplies, boxed parts, radio advertising and promotional items. Email Dale Boyce at radioman@wi.rr.com or call (414) 840-4146.

Old comics

Send lists to Dan Giddings, PO Box 3961 Glendale, CA 91221-3961.

√ For Sale

Multiple items offered by Jim Collings, (405) 755-4139, jrcradio@cox.net.

- Ottocrat 8 tube superheterodyne battery set from the 1920s. Very unusual, \$75.
- Early Ozarka receiver with crystal detector and three tubes, \$75.
- Sony Model 500A Stereo Tape Recorder, works well, \$200.
- Grundig TK-46 tube stereo tape recorder, works well, \$200.
- Lloyd Green Concert Selector 4-tube battery set with two variometers, \$75.

Magnet Wire Sizes and price vary. Contact Mike at (405) 376-9473 / orders@coaxman.com.

Radio Chassis stands \$37.50 small / \$55 large. These maintenance stands hold a chassis while working on it. Prices do not include brackets at \$2.50 or shipping. Contact Steve Strong at (405) 634-7547 or e-mail scstrong1@cox.net.

Quilted Radio Covers \$10 Tabletop/\$20 console Protect your antique radio from dust, water, and other damage, and show off your radio pride. Contact Dorothy Cady (405) 206-9985.

AM Transmitter \$85 with Bluetooth, \$75 without. Play your digital music collection on your antique radios with an AM transmitter. Comes with USB and SD card connections and built-in FM tuner. Bluetooth option lets you connect to a smartphone or tablet. Contact Raymond Cady (405) 820-8014 / cadyraymond1@gmail.com.

√ Services

Antique Radio Restoration and Servicing Edmond, Oklahoma. *Let me make it look and run like new again.* Contact me at:

Email: cadyraymond1@gmail.com

Phone: (405) 820-8014

Website: goldenageradiorestitution.com

Free matchup of transmitter to radio with purchase of AM Transmitter. Contact Raymond Cady at (405) 820-8014 or cadyraymond1@gmail.com.

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We're on the Web!
Visit us at:

www.okvrc.org



A big hello from all of us to those members, family, and friends who are unable to make our regular meetings. Hope all of you are well and that we will see you again in the near future.

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