



# OSCILLATOR

The Official Newsletter of the DVHRC

Vol. 9, No. 11, January, 2002

## Christmas cheer at the DVHRC

**December meeting notes, Dave Snellman reporting...**

Our December meeting was our "holiday special." While we had no technical topic, we had a lot of things to do. We had the annual election for the Board of Directors, some great food to feast upon, a "special" surprise, and the usual auction. So here goes...

We collected 2002 dues from around 48 members so far. This is ahead of last year's total. You still have time to pay dues, either at an upcoming meeting or through the mail. Annual dues are a real bargain - only \$15.00.

At the November meeting we accept nominees for the board of directors for the upcoming year. Tonight we held the election. All members in good standing were eligible to vote.

The following were elected to serve on the board for the year 2002: Lewie Newhard, Dave Snellman, Pete Grave, Dave Abramson, and Bill Overbeck. Officers are as follows: Bill

Overbeck, President; Dave Abramson, Vice-President and Oscillator editor; Dave Snellman, Secretary; Pete Grave and Lewie Newhard, board members.

December also means it was time for the annual holiday party. This year was no exception. We got the opportunity to partake of some delicious food and deserts, as well as, converse among friends. Of course, our annual gift exchange.

We had a very special event, a first for DVHRC. We've all heard of the poem that goes, "Yes, Virginia, there is a Santa Claus..." Well, at DVHRC the poem was re-written to something like, "Yes, DVHRC members, there is a 'Santa Lewie...'"

Our special treat came in the form of a large number of "presents" that were provided by Lewie Newhard. Lewie and his wife wrapped up almost 50 packages of radio and electronic related goodies found at a recent sale.

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### This month at the DVHRC

Dust off your Grundigs and come by for a presentation by our own Jiri Placek on European schematics and components from pre-WWII to mid-50s. Topics include;

- unit values and why Europeans measure capacity in centimeters
- estimates of accuracy in original components
- German influence on standardization of European schematics
- differences between European and US schematics

January, 8th, 7:30pm Telford Community Center



*Newsletter of the  
Delaware Valley Historic Radio Club  
P. O. Box 847  
Havertown, PA 19083*

The Oscillator is published monthly by members of the non-profit DVHRC. Its purpose is to provide a forum to educate, inform and communicate with collectors and practitioners of vintage radio technology.

We welcome and solicit information relating to radio history & collecting. Submissions should be carefully researched, typed and accompanied with clear photographs or diagrams. Manuscripts should be in Word and jpg format.

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Personal news, opinions and technical advice offered in the newsletter do not necessarily reflect those of the members, officers or Board of Directors of the DVHRC, nor is the organization responsible for any buying or selling transactions required.

To join DVHRC dues are \$15 per year. The membership year runs January - December. Please mail to the club P.O. box above.

Meetings are held the second Tuesday of the month at 7:30pm in the Telford Community Building, Telford, PA.

#### DVHRC BOARD OF DIRECTORS

Dave Abramson

Pete Grave

Lewie Newhard

Bill Overbeck

Dave Snellman

#### FOUNDING PRESIDENT

Jay Durek

#### OFFICERS

President Bill Overbeck

Vice-president Dave Abramson

Treasurer Mike Tannenbaum

Secretary Dave Snellman

#### OSCILLATOR EDITOR

Dave Abramson

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(deadline is the 20th of each month)

The club sold raffle tickets to the members and as each number was called, the lucky individual was rewarded with a "present." All told, the club treasury is richer by over \$300 from this event. Oh, and the presents... Well, some were rather nice. I was fortunate enough to get a blue Arcturus 27 detector in with a number of miniature tubes. There were many other "treasures" in these packages.

After a brief break for refreshments, we went into the usual auction. I nagged a bit in last month's column about the auction rules not being followed and how it was slowing things down. Pete Grave came up with some ideas and I agreed to go along with them in an effort to speed things along so we can get out at a reasonable time.

Here is how our auctions will run. We have not changed the commission scheme. It will remain a 10% seller's commission on items up to \$50.00. Any item sold for more than \$50.00, the commission is a flat \$5.00.

Onto the new rules for 2002...

1. Members need NOT fill out an auction form. The auction clerk will fill the form out as items are sold. Items not sold will not be listed. Also, this will give the auctioneer a chance to organize "box" lots and "buyer's choice."
2. Every member has a member number. This will be your "bidding number." If you do not know your number, a list of all member numbers will be available. DO NOT ask "what's my number?" after auction starts.
3. Members MUST stay with their items as they are auctioned. This way we can find out if there are "reserves." If a member is not at their table and the auctioneer is ready, we will bypass that table and re-try it at the end of the auction.
4. Commissions are to be paid at the end of the auction. Do not try to "check out" during the auction.

A reminder from last month...

Last month we announced that we received a "challenge" from our neighboring club across the river. NJARC has invited us to join their annual "DX Contest." It will be held in March 2002 and is a chance to try out your "DX'ing" skills with an antique radio twist. There are categories of receivers that range from Crystal sets to one-tube sets to an open category that would permit use of any set made prior to 1950. Any type of antenna can be used. More details will be available at the December meeting and in the Oscillator. You can also contact Dave Snellman for info via e-mail (My e-mail address is snellman@bucks.edu.)

Well that's about it for December and for 2001. Our first meeting for 2002 will be on January 8, 2002. Please plan to attend. 7:30 PM is the time, Telford Community Center the place.

In keeping with the European theme for this month's meeting, here is a partial list of European suppliers I found for you to keep in your files. I will continue this list in the next few issues. If you have the internet, the complete list can be found at:

[www.sigtel.com/tv\\_tech\\_resto\\_components.html](http://www.sigtel.com/tv_tech_resto_components.html)

### Valve suppliers include:

- ANODE ELECTRONICS LTD, 80d Hyde Park Road, Plymouth, Devon, PL3 4RQ (01752-673356).
- BILLINGTON EXPORT, Unit 1E, Gilmarts Industrial Estate, Billingshurst, Sussex, RH14 9EZ (01403-784961; fax 01403-783519). £50 minimum order, very wide selection including industrial types and CRTs.
- CHELMER VALVE COMPANY, 130 New London Road, Chelmsford, Essex, CM2 0RG (01245-265865; fax 01245-490064). Good stock of brandname valves, particularly audio.
- COLOMOR ELECTRONICS LTD, Unit 5, Huffwood Trading Estate, Bookers Road, Billingshurst, Sussex, RH14 9RZ. Telephone 01403-786559, fax 01404-786560, e-mail: [sales@colomer.demon.co.uk](mailto:sales@colomer.demon.co.uk). Website: [www.colomer.co.uk](http://www.colomer.co.uk). Good selection, modest prices.
- CROWTHORNE TUBES (Gerald Horrocks), 65 Greenwood Road, Crowthorne, RG11 6JS (tel/fax 01344-776542, <http://www.crowthornetubes.co.uk/>). Wide range of old valves, obscure CRTs.
- EDICRON LTD, Park Road, Faringdon, Berks, SN7 7BP (01367-243030; fax 01367-243131). No minimum order size.
- GROOVE TUBES UK LTD, 8 Barn Green, Bradmore, Wolverhampton, WV3 7AY (01902-620156; fax 01902-620207). High-end audio valves.
- KENZEN, Unit 9, 16-20 George Street, Balsall Heath, Birmingham, B12 9RG. (0121-446 4346; fax 0121-446 4245). NOS valves and other valve-era components. This business can now offer an extensive range of new-production high-voltage electrolytics at advantageous prices. These are good quality. British-made caps, in fact the same brand as the Vintage Wireless Company of Bristol used to sell. They are ideal for replacing problematic caps in old valve equipment. Information sheet/price list will be sent in return for SAE. Please ring for an appointment if you intend visiting the warehouse.
- LANGREX SUPPLIES LTD, 1 Mayo Road, Croydon, Surrey, CR20 3QP (020-8684 1166; fax 020-8684 3056). Large stocks, including industrial types.
- PM COMPONENTS LTD, Seleton House, Springhead Road, Gravesend, Kent, DA11 8HD. (01474-560521; fax 01474-333762). Large range of audio, TV and industrial valves and CRTs. Large catalogue, 24-hour mailorder service. Produces Golden Dragon valves in China.
- SAVOY HILL PUBLICATIONS, 50 Meddon Street, Bideford, EX39 2EQ (01237-424280; fax 01237-424280), website: <http://www.freespace.virgin.net/tudor.gwilliam-rees>, e-mail: [tudor.gwilliam-rees@lineone.net](mailto:tudor.gwilliam-rees@lineone.net). Mainly unusual used items plus some new.
- SOUND SYSTEMS, 111 Felixstowe Road, Ipswich, Suffolk, IP3 8EA. NOS valves and valve-era components.
- SUSSEX SURPLUS, 13 Station Road, Horsham, Sussex (01403-251302). GEC and Mullard audio valves.
- Philip TAYLOR, 3 Silver Lane, Billingshurst, Sussex, RH14 0RP. Good for obscure types.
- TUBE TECHNOLOGY, Fachill Farm, Longcross Road, Ottershaw, Surrey, KT16 0DN (01932-873444; fax 01932-873012). UK distributor for Gold Aero audio valves from the USA.
- VALVE & TUBE SUPPLIES, Woodlands Vale House, Calthorpe Road, Ryde, PO33 1PR (01983-811386; fax 01983-564708). Large stock of transmitting, output and receiving valves, tuning indicators, valveholders.
- WILSON VALVES, 28 Banks Avenue, Golcar, Huddersfield, Yorks, HD7 4LZ (01484-654650, 420774; fax 01484-655699). Sortek and NOS valves, audio and radio.

### From the Parts Bin Dave Abramson, Editor

A very Happy New Year to all of you from your editor. 2002 starts out for the DVHRC with a new board for the club as written earlier by Dave Snellman.

While the officers look to be the same for the most part, we are determined to run and grow the club in a professional manner which is only to the benefit of all of us.

We will be pushing harder for more volunteers to help with projects we wish to try. We need to be in better contact with other clubs. We will be looking for your input on club activities and operations. It is your club. And most of all, we need to raise funds. The board will try to aim it in the right direction, but we need your help.

I for one would love to see a display-only type show at some mall or other public place for a weekend. If I could get a few volunteers to check with management at malls in your area, we might get lucky. It's all part of spreading the news about our club.

And as usual, I can always use articles and photos and suggestions for this little magazine.

-Ed.-



## What's All This Muntzing Stuff, Anyhow?

Recently, a young engineer wanted to show me a circuit he had been optimizing. We reviewed the schematic and the breadboard, and we studied the waveforms on the 'scope. We realized that one of the resistors was probably doing more harm than good, so he reached over for a soldering iron. When he turned back to the circuit, the offending resistor was gone! How did it disappear so fast? Ah, I said, I always keep a pair of small diagonal nippers in my shirt pocket. And when I want to disconnect something, it only takes a second to snip it out or disconnect it on one end - just like Earl "Madman" Muntz. The kid looked at me. "Earl WHO?" And I explained.

Back in the late 1940s and early 1950s, television sets were big and expensive and complicated - a whole armful of vacuum tubes, lots of transformers and rheostats and adjustments that had to be trimmed, and many complicated circuits for signal processing. And all to drive a crummy little green-and-white 5-in. or 7-in. picture tube, where the whole family could crowd around to watch.

Earl Muntz was a smart, flamboyant businessman. Anybody who could make a success of selling used cars in 1939 or 1946 had to know something about salesmanship, and Muntz had built up a \$72 million business in Glendale, Calif.

For example, Muntz would advertise a particular car with a special price as the "special of the day" - a car that had to sell that day. If the car was not sold by the end of the day, Muntz vowed to smash it to bits with a sledge-hammer, personally, *on camera*. Needless to say, with tricks like that he was able to generate a lot of publicity and interest, and sell a lot of old cars, too.

So when Muntz started his plans to sell TV receivers in 1946, it was obvious that he would be looking for a competitive advantage - in other words, he had to have an angle. He wanted to get the circuits simple - the manufacturing costs low - and he knew he needed a lot of promotion.

He realized that a receiver designed for "far-fringe reception" (40 or 50 miles out) had to have at least 3 or preferably 4 Intermediate Frequency (IF) stages (with a pentode for each stage, plus a transformer, 5 capacitors, and 3 resistors), and loops to hold the frequencies stable even when the signals were very weak.

Muntz decided to relinquish that "fringe" business to RCA and Zenith and other established manufacturers. Instead, HE would design for Manhattan and other urban areas, where you could look out your window and see the doggone transmitting antenna on top of the Empire State Building, or equivalent.

HE knew he could get engineers to design television receivers that would be very inexpensive, very simple, and would still work quite satisfactorily in these strong-signal areas. Then he could get away with two IF stages, and they would not need fancy loops, and the tubes could all be biased up with cheap-and-dirty biases.

As the circuits shrank, the power supply shrank. And as the price shrank, his sales volume began to grow, leading to still further economy of scale in manufacturing. Muntz dropped his prices so fast, so low, that his competitors again accused him of being a madman, cutting prices and competing unfairly.

When people watched Ed Sullivan or other pioneering programs of the era on their tiny 7-in. screens, who came on at the end of the hour to promote his new, low-priced 14-in. (diagonal measurement) TV sets? Why, Earl "Madman" Muntz himself!

"You can have TV in your home tonight," he would say. "Your living room is our showroom." And, wearing red longjohns and a Napoleon hat, he would vow, "I wanna give 'em away, but Mrs. Muntz won't let me. She's crazy."

Muntz was a smart merchandiser, and he knew that his competitors' jibes could be turned to work to his advantage. He knew that his TVs were not built of cut-rate parts - in fact, his receivers were carefully engineered to be at least as reliable as the competitors' sets that cost twice as much - and they would perform just as well, so long as you stayed in a strong-signal area.

And how did Muntz get this circuits designed to be so inexpensive? He had several smart design engineers. The story around the industry was that he would wander around to an engineer's workbench and ask, "How's your new circuit coming?"

After a short discussion, Earl would say, "But, you seem to be over-engineering this - I don't think you need this capacitor." He would reach out with his handy nippers (insulated) that he always carried in his shirt-pocket, and snip out the capacitor in question.

Well, doggone, the picture was still there! Then he would study the schematic some more, and SNIP... SNIP... SNIP. Muntz had made a good career of hunting down and changing the circuit. Then, finally, he would make one GMIC too many and the visitors on the board would stop visiting. ER

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### What's All This Muntzing Stuff, Anyhow? (cont)

Well, doggone, the picture was still there! Then he would study the schematic some more, and SNIP... SNIP... SNIP. Muntz had made a good guess of how to simplify and cheapen the circuit. Then, usually, he would make one SNIP too many, and the picture or the sound would stop working. He would concede to the designer, "Well, I guess you have to put that last part back in," and he would walk away. THAT was 'Muntzing' - the ability to delete all parts not strictly essential for basic operation. And Muntz took advantage of this story, to whatever extent it may have been true, and he publicized his "uncanny" ability to cut his costs - in yet more televised advertisements.

For several years, Earl Muntz kept impressing his engineers to build in only the circuits that were essential, and for those years, his TV receivers were competitive and cost-effective. All because of his "Muntzing" he would say in his ads. But really, that was just one aspect of good sharp engineering. And of course, he had to know where to start snipping. Although he was not a degreed electrical engineer, he was a pretty smart self-taught engineer, and his marketing and advertising campaigns capitalized on the story. He knew how to engineer what people needed - right down to a price.

For example, only in the last 10 years has Automatic Fine Tuning become universally available on UHF as well as VHF tuners, so that manual fine tuning is unnecessary. But as early as 1958, Muntz TV bragged that there was no fine tuning on their best receivers, on all 12 channels. Did Muntz build in AFT before his time?? Heck, no - he just left out the fine tuning knob. The tuners were all tuned up at the factory. Then if the tuning drifted on a hot day, or the tuner components aged, you just had to call in a serviceman to tweak it with a special screwdriver.

So, Muntz had the gall to leave out an important feature, and then he bragged about the apparent simplicity! You can fool some of the people some of the time ...

Muntz got rid of the Horizontal Hold AFC circuit to cut costs. He gothis engineers to use a straight Hold circuit, which actually worked well under strong signal conditions and was easier to troubleshoot than the temperamental AFC loops of the day. He pioneered and took advantage of the Inter-carrier sound (Panar System) so that audio tuning was automatic and no separate tuning was needed. This was a necessity before he could drop the fine-tuning knob ...

For some production adjustments, his test technicians would clip a trim pot onto the circuit, twiddle it to get the alignment just right, and then remove the pot and solder in a fixed resistor of the required value. All very fine, AND inexpensive, but as the carbon resistor aged, and the circuit aged, the TV receiver would go "on the fritz." Then the TV repairman would have to make a special trim, much more expensive than just tweaking a pot. The repairmen were happy to get all this repeat business, but eventually the customers figured out that a low initial cost was not necessarily the best investment ...

Finally, as the TV receiver business matured, Muntz realized he had sold all of the cheap sets he could, and he got out of the manufacturing business. After a brief bout with bankruptcy in 1954, he got back in the business of selling TV and electronics, "HiFi and Stereo," in a Los Angeles store, until his death in 1987 at the age of 77. The store is still open, operated by his family and heirs.

Let's go back to the scene where Mr. Muntz was trying to justify which parts could be safely left out of the TV set. If he snipped out a resistor that appeared to be unnecessary, but it was actually needed for operation on low line voltage, or when the frequencies shifted on a hot day, then I really believe Mr. Muntz would not prevent the designer from justifying it on a real need basis. But frivolous circuits - they were too expensive to keep.

Now let me make some observations about adding features and "frivolous" circuits, which is what I tend to support. An example: If I design a new circuit with 8 new features, I may argue to the marketing expert that these features will surely sell lots of these parts to new markets.

He may ask, "Bob, which of those 8 features will make it sell so well?" And, I'll admit, I have no way to guess exactly which ones, but I believe that 2 or 3 of them will be very popular. No matter how much he grills me, he can't shake me loose from my ignorance - I really do not know which of the 8 added features will make the basic chip a great seller.

BUT, things have changed from the days of Earl Muntz. Today, I can add 5 transistor functions here, and 8 there, and 14 here, and 27 there, and altogether they will not add 2% to the area of the chip, nor the cost, and they won't hurt the yield.

They may not even impact the test time all that much. They will surely have no effect on reliability if I design them properly. In Earl Muntz's day, though, NONE of these statements were true. Things sure keep a-changing, don't they????

Robert A. Pease / Engineer

**AIRWAVES****TIMELINE***"This Month in Radio History"*

Compiled by Mike Koste



**JANUARY 2, 1902** Nathan Stubblefield, who claims to have been broadcasting since 1892, makes a public demonstration of voice and music transmission in his home town of Murray, Kentucky.

**JANUARY 13, 1910** Enrico Caruso sings over the Marconi Radiophone from New York City and is heard by wireless operators in Connecticut and aboard the SS *Avon* on the Atlantic.

**JANUARY 12, 1926** Freeman Gosden and Charles Correll's dialect comedy "Sam 'n' Henry", (forerunner of "Amos 'n' Andy"), make their first broadcast over WGN, Chicago.

**JANUARY 17, 1929** Speaking of politically incorrect, the minstrel variety show "Aunt Jemima" was first heard on CBS. Believe it or not, it remained on the air for 24 years!

**JANUARY 1, 1930** The groundbreaking satire, "The Cuckoo Hour" starring the truly original Raymond Knight, casts its first ham poem on the Blue Network. Knight's offbeat comedy style was a profound influence on Bob & Ray.

**JANUARY 27, 1931** Colgate-Palmolive unknowingly sponsors an American icon. With the first chapter of "Chris, Lu and Em," the radio soap opera is born.

**JANUARY 12, 1932** New York newspaper columnist Ed Sullivan begins his broadcasting career. (Even though Ed's first series lasted only eight months, it was a landmark since it first introduced listeners to Jack Benny, Irving Berlin, Florenz Zeigfeld and George M. Cohan.)

**JANUARY 2, 1933** Following a stint at Philadelphia's WCAU, noted commentator Boake Carter gets his first network job editorializing at CBS, weekdays at 7:45, sponsored by Philip Morris.

**JANUARY 15, 1933** Powel Crosley Jr. begins tests of his new half million watt transmitter at WLW in Cincinnati. Meanwhile, major phonograph companies begin to label their records "Not Licensed For Broadcast", to protect their claimed property rights.

**JANUARY 22, 1933** The first broadcast of the pioneering crime show "Twenty Thousand Years in Sing Sing". So popular a radio program, it later became a hit motion picture, starring a very young Spencer Tracy.

**JANUARY 31, 1933** Debut of "The Lone Ranger" over WXYZ, Detroit and seven other stations on the newly formed Michigan Radio Network. (WOR New York, WGN Chicago and WLW Cincinnati join a year later, creating the basis of The Mutual Broadcasting System.)

**JANUARY 1, 1934** Station KNX in Los Angeles begins paying commissions to radio account executives for commercial advertising sales. Also on this day, The Federal Radio Commission widens the broadcast band by adding three new channels, 1430, 1550 and 1570 kHz for experimental high fidelity stations. (By 1936, 1000 watt licenses were in place at W1XBS, 1530 kHz in Kansas City, W2XR, 1550 kHz in New York City, and W6KAI in Bakersfield, California.)

**JANUARY 4, 1935** Bruno Seltzer begins sponsorship of Bob Hope's first radio program, "The Intimate Revue" on the Blue Network.

**JANUARY 12, 1936** The 120 members of the Distilled Spirits Institute agree not to advertise hard-liquor products on radio. By the late 1990's, such advertising became provisionally permissible at the discretion of individual stations. Now they have returned, with provisions to NBC television.

**JANUARY 31, 1936** "The Green Hornet" solves his first caper on WXYZ, Detroit. Mutual and Blue Network broadcasts begin two years later.

**JANUARY 15, 1938** In Alpine, New Jersey, Major Edwin Armstrong begins construction of W2MKXN, his experimental 50,000 watt FM radio station, operating at 44.1 mHz.

**JANUARY 1, 1939** Following fifteen years of litigation, Dr. Vladimir Zworykin is finally granted a patent for his iconoscope/kinescope tubes, the basis of electronic television.

**AIRWAVES***"This Month in Radio History"***TIMELINE**

Compiled by Mike Koste

**JANUARY 1, 1939** Following fifteen years of litigation, Dr. Vladimir Zworykin is finally granted a patent for his iconoscope/kinescope tubes, the basis of electronic television.

**JANUARY 16, 1939** Still regarded today by old-time radio fans as the most intriguing show of its kind, "I Love A Mystery" premieres on NBC.

**JANUARY 7, 1940** A singing cowboy and star of numerous "B" western movies conquers another medium ... "Gene Autry's Melody Ranch" first yodels on CBS.

**JANUARY 26, 1940** Sunday night listeners first had a chance to "Beat the Band". Garry Moore hosted, along with the fourteen piece Ted Weems Orchestra and vocalist Perry Como.

**JANUARY 7, 1941** The classic horror program "Inner Sanctum" premieres on NBC radio.

**JANUARY 7, 1943** CBS introduces the longrunning teenage sitcom "Meet Corliss Archer".

**JANUARY 17, 1944** Six thousand radio employees, nearly one quarter of the industry, are in the Armed Services. NBC decides to make its programs available to FM outlets of its AM affiliates without charge to the sponsors until an increased audience merits it. CBS follows suit two weeks later.

**JANUARY 6, 1945** David Daniel Kaminski gets his own series on CBS Radio. "The Danny Kaye Show", sponsored by Pabst Blue Ribbon Beer, also featured Eddie Arden, Lionel Stander and Butterfly Mc Queen.)

**JANUARY 15, 1945** "House Party" starring Art Linkletter begins its 22 year run on CBS Radio, sponsored by General Electric.

**JANUARY 16, 1945** Thousands of radios, towers and transmitters are rendered obsolete following the FCC's mandate that the 42-50 m Hz FM band move to the 84-108 m Hz area. (A victory for RCA and a major loss for Major Elwin Armstrong.) Later, to accommodate more channels, FM broadens itself to 88-108 m Hz.

**JANUARY 7, 1946** A newcomer to the daytime soap operas, "The Second Mrs. Burton" debuts on CBS, lasting well past radio's Golden Age, concluding in November, 1960.

**JANUARY 5, 1948** Daily facsimile transmissions of *The Philadelphia Inquirer* begins on WFIL-FM (now WIOQ).

**JANUARY 10, 1949** In a combined effort, NBC and Dumont networks present the hour-long telecast, "Friday Night Frolic", starring Sid Caesar, Imogene Coca and Marge & Gower Champion, sponsored by Admiral Corporation.

**JANUARY 31, 1949** The First Annual Emmy Awards telecast on LA's KTS-L-TV (now KNXT-TV)

**JANUARY 1, 1951** In a six year deal, The Gillette Safety Razor Co. shells out one million dollars for exclusive TV sponsorship rights to the All Star Game and World Series.

**JANUARY 7, 1952** Philco buys NBC's radio and television coverage of the '52 Republican and Democratic Conventions and election night coverage for \$3.8 million. Admiral follows suit on ABC for \$2 million.

**JANUARY 1, 1959** 156 million radios are in use in the US, about one per person. (By 1995, that figure grew to 575 million!)

**JANUARY 6, 1974** In hopes of promoting a resurgence in network radio drama, "The CBS Mystery Theater" debuts. Despite less than mediocre ratings, the show lasts eight years and over 1300 broadcasts.



**OSCILLATOR**

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# The Kutztown Radio Store

AT RENNINGER'S ANTIQUE MART KUTZTOWN, PA

Open Saturdays, 8:30-4

Sales and Repair  
of antique radios



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and related parts

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Lewie - (610) 262-3255

lewallie@aol.com

Dale - (610) 262-1807

tubenet@webtv.net



Photo courtesy of Read Corporation

(215) 540-8055 FAX 540-8327  
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[Lewallie@aol.com](mailto:Lewallie@aol.com)

VISIT THE DVHRC WEBSITE AT;

<http://pw2.netcom.com/~firstrate/dvhrc.htm>



**OSCILLATOR**

1649 Yellow Springs Rd.

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