

# SOUND WAVES

Vintage Radio and Phonograph Society, Inc.

APRIL 2008

## From the President.....

Jim Sargent

It continues to be a fast paced winter, now going into spring. So much is happening it is hard to stay ahead of the curve. As I write this, it is the day after the Spring auction. It was so good to see the 80 plus bidders, some from Houston, San Antonio, Austin and many points in Oklahoma, even with gas prices at record highs. I imagine we will need to begin taking that into account when we plan future functions...but I would rather not think about that right now. Staying with the Spring auction, I want to thank all those who helped in the many capacities. I have said this before and I'm sure not the first to say it, but it would be very hard, if not impossible, to do the many things we do in this organization, especially auctions, if it were not for the support of the volunteers who continue to shine. Without mentioning names, I will just say thanks to all of you. As the years go by, those of us who have been in the VRPS for a long time can reflect back on the changes that have occurred over the years. For example, 15 to 20 years ago, we implemented a maximum number of items any one individual could enter into our auction at one time. We did this because we had so many items show up for sale, we were literally running out of time to attempt to auction them all. We would simple have to stop the auction at some point and of course that made some folks unhappy....sellers who brought something to sell and were not allowed that opportunity. And of course, the buyers who might have waited all day for a specific item only to find that the auction stopped before that item crossed the block. Taking it a little further, the VRPS lost as well, as we are able to do the many things we do based upon the revenue from our auctions twice a year. Disappointing on all accounts. Looking back at yesterday, we realized that for at least the last two years the number of items offered had dropped. While there was still good quality, we need the volume to continue to draw buyers who make the effort to come to Grapevine at \$3+ a



gallon. As such, next year we will try to not limit the number of items per seller. This should benefit everyone. As with everything we do, we will continue to monitor the status of auctions to determine if we need to reinstate rules on limiting items. Frankly, I hope we do have to re-impose these restrictions at some point, it will mean attendance is again picking up. That is also a good thing. You will hear more about this as we announce our future auctions. Until then I look forward to seeing you at upcoming meetings and swapmeets. One last thing. For several years now, Terry Muncey, a member and good friend of the VRPS, has donated a copy of his Riders Volume 1-23 on DVD, for us to auction. This is but one of the many excellent items Terry produces for the radio collector and sells worldwide through Radio Era Archives. Donations like this help defray expenses in conducting our auctions. Thanks, Terry, and good hunting to all.

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### VRPS EXTENDS A WELCOME TO THE FOLLOWING NEW MEMBERS:

John Bigony  
Robert Gwinn  
George Humphrey  
Donald Hofmann  
Tony Quinn  
Chris Sargent  
David Spence

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### OKLAHOMA VINTAGE RADIO COLLECTORS RADIO SWAP MEET AND SALE

Our Spring annual meet will be held at the newly remodeled Midwest City Community Center, 100 N. Midwest Blvd., Midwest City OK 73110. This is an eastern suburb of Oklahoma City. It begins with an indoor swap meet at 8 AM. There is a silent auction, contest, and then a regular auction. It usually winds down about 1 PM. There is no admission, and no charge for swap tables.

Info: Frank Karner- fkarner@cox.net -- (405) 769-4656

## NOTES FROM THE FEBRUARY 16, 2008 MEETING

Bill McKeown

Our club president Jim Sargent, filled us in on plans for the rest of the year, including our upcoming Spring auction and August swap meet. We need to remember that it will be at the SENTER EAST building over by the park, as it has been for some time, and the July Repair Session will be at the Jaycee Center-for-the-Arts on hwy 183 - even though we are meeting mostly at the old Garden & Arts Building. Jim suggested that we keep a look out for public places to exhibit our treasures – those with locked-up display cases. This will make the public more aware of our existence and maybe inspire some people to become members.

Originally, the February meeting was scheduled to feature Richard Kearley and his long-time experience in radio broadcasting, but conflicts forced that to move to our April 19 meeting. Therefore our program organizer Mike Grimes presented a program that he had been saving for just such an occasion. His program covered the amazing history of the development of integrated circuits, from growing the silicon clear through to the making of the chips and packaging them into useful devices. Mike showed and passed around a collection of pieces of silicon and silicon wafers as found in the normal manufacturing process. He explained how the old zone-refinement silicon semiconductor purification process has been replaced by a distillation process using a liquid compound – trichlorosilene. He explained how silicon “seed” is introduced into a crucible of unimaginably-pure silicon to grow a very large single crystal. The process of making the crystals uses huge amounts of energy, comprising most of the cost of producing integrated circuits. Many of the supporting processes are also “energy-hungry”. The crystals are then sliced into wafers that are then polished to a mirror-like finish. A flat edge is left on the wafer to serve as an index for the cleavage plane (crystal lattice orientation). A thin layer of silicon dioxide is formed on the wafer surface to serve as an insulation layer. Thus begins the process of etching and adding impurities, or “doping” the silicon in accordance with masks that will create a multitude of chips from the wafer. Hydrofluoric acid is used to selectively etch holes and patterns through the silicon dioxide layer, preparing the wafer for the introduction of boron to make the “P” part of NPN, or phosphorous or arsenic to make the “N” part. Many more



masking and doping and etching processes complete the “wiring” of the chip and providing pads with which to make connections with bonded wires.

The largest user of silicon in integrated circuits is the manufacture of memory devices for use in computers, answering machines, hard-drive substitutes (USB memory modules), iPods, games, MP3 players and many more gadgets. Some memory devices contain millions of capacitors that do not discharge for more than 10 years because of the perfect insulation properties of silicon dioxide.

Mike showed a video sponsored by several companies, such as Hewlett-Packard and Intel. The video was very informative and interesting. It showed the processes of making integrated circuits all the way to their assembly into computers.

### Author's Notes:

Although the topic of the meeting was modern technology, it served to emphasize the tremendous advances since the days when our antique radios were first created, from a radio with a single active device (one tube) to complete radios-on-a-chip with millions of active devices, e.g. cellphones and i-Pods. People can hardly believe such simple old radios could even work!

A truly amazing experience - I had access to a high-power microscope and had a microprocessor with built in ultraviolet-erasable memory (INTEL 87C51). Because of the erasable feature, the device has a window through which the chip can be viewed. At 100X magnification, only the general features of the chip could be seen, with the chip divided into different arrays of devices, such as program memory. The termination pads could be seen, of course and the “copyright INTEL 1995” etched into the silicon. At 500X, more detail could be seen, including more of the interconnection paths, but only at 2000X could you barely make out what must be individual devices. Even though Mike Grimes worked at Texas Instruments for a long time, I imagine it's amazing to him, as well. With today's finer line structure, perhaps 2000X is not

## Notes from the Bench

### WATCH OUT FOR THOSE METAL TUBES!!

by Cleo Cherryholmes

With the introduction of the metal tube in the mid 30's, manufacturers were quick to recognize the shielding effect the metal enclosure provided. With this introduction the need for separate metal tube shields became an option. The Grunow Teledial Twelve, marketed in 1936, highlighted the use of all metal tubes (even the outputs and rectifier). Not all the manufacturers followed suit and continued to use glass tubes in the "G" then the "GT" version with separate metal shields for many years.

**Repair people have experienced what can happen when the shields are removed from tubes requiring them- strange sounds, squeals, oscillations, misalignment, and other issues that can sometimes be difficult to diagnose.**

**Many of the octal tube types were made in both metal and glass, and so interchanging these two versions in the field was common. One might conclude that some simple checks will help avoid shield- related problems:**

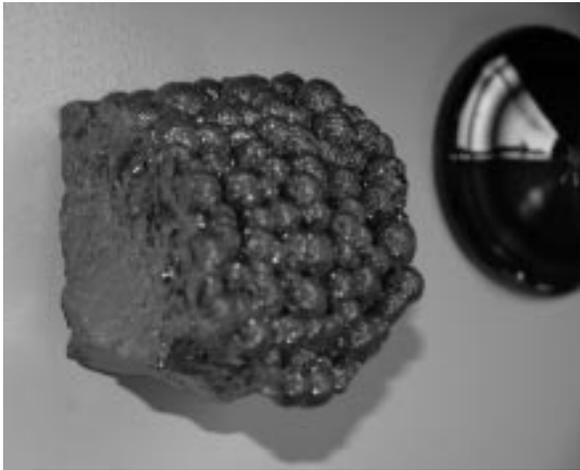
1. **If a glass tube is in a particular socket and there is evidence of shield brackets, slots, clips (indicating a shield was used), you should install a tube shield.**
2. **If there is evidence that a tube shield was originally used but a metal tube is now being used, everything is OK.**

### **HOWEVER, EVERYTHING MAY NOT BE OK!**

For an octal metal tube to provide shielding as needed, **pin #1 on the socket must be grounded!** Set makers using octal glass tubes ( Zenith is a good example) at first did not ground pin #1 or in many cases there was not even a metal clip in the socket for pin #1. In later years many/most sets will have the pin #1 clip on the octal socket grounded even though a glass tube with shield was originally used. A quick check of the socket areas of your set for evidence of missing tube shields (tubes with any pin layout) and for ungrounded pin #1 metal tubes can save a lot of frustration.

*(Notes from the Bench is provided for information only. The VRPS or the author accepts no responsibility for the use or misuse of the information)*

These are some samples Mike Grimes brought for his presentation on the manufacture of silicon chips.



## VRPS SPRING AUCTION REPORT 2008

By George Potter

Another spring auction has come and gone. The VRPS held their annual Spring Auction March 15<sup>th</sup> at the Grapevine, Texas Convention Center. The doors opened at 6:30

AM for early birds and I wasn't one of them, but many were. Coming from out of town (which in the Metroplex is defined as 25 or more miles away) we saw many of our friends from Houston and Oklahoma and some I haven't seen in years from the Metroplex!

Ron and Dee Daniels confirmed there were 82 registering at the front desk, with approximately 109 in attendance. Mike Grimes made sure we had an efficient and free-moving auction equipment floor and Cleo Cherryholmes was set up and prepared for our video presentation of auction items up for bidding. At 10 AM, Jim Sargent started with some of the other area club representatives speaking of activities going on in their locations.

There was a pretty good selection of equipment represented in the auction and, to my excitement, several phonographs and gear appeared, along with 60's through 80's amplifiers (which we haven't seen much of).

I don't have, as yet, a complete total dollar amount or number of items sold, but will shortly and will have it posted on the VRPS website.

An analysis of trends and favorites showed a little weakness in cathedrals, especially in the large Philco 90 types. Battery sets were kind of average, but there was a fair amount of speakers and horns that sold well. There were not a lot of tubes nor paper items, but several restored consoles and table sets.

### Here is a partial listing of items and the amounts they sold for:

Victor VV-IX- \$100

Phonograph morning glory horn in fair shape- \$35

A nice Grebe Synchronphase- \$100

Atwater Kent 84 cathedral, excellent shape sold for just \$230

Bristol Audiophone Sr. horn for - \$100

Bristol Audiophone Jr., condition unknown- \$75

Columbia phonograph reproducer- \$36

German WW II tube with swastika stamped on it- \$10

Two Coca Cola bottle novelty radios- \$18

A Simplex X-ray machine (I think it was a fluoroscope used back in the 50's where you inserted your feet with shoes on and could see your bones) art deco style with wood cabinet. I used to love to see this in a Sears- Roebuck store in Tyler, Texas, where my grandmother worked. No, my feet do not glow to this day! It sold for \$45 after some quick bidding.

Sherwood stereo tuner- \$60

Philco 90 cathedral, really nice set, but sold low at- \$200

Philco 16B cathedral- \$170

A Nice Zenith shutter-dial 7S262 console restored, incomplete wood knobs- \$250

Edison Triumph, less horn and crank, but nice original condition- \$600

Silvertone WLS horn, in nice shape- \$150

One- tube Reinartz set, from the Harold Greenwood collection California, with 201A tube- \$ 110

Large Edison brass bell horn, nice shape- \$55

Fisher amplifier- \$410

DYNACO MKII amplifier- \$220

DYNACO amplifier- \$200

A nice Bogen amp passed, as did a "classic" Sony BETAMAX VCR in the original box with tapes

Sonocorde speaker, original grille cloth cone speaker- \$35

Bristol Baby Grand horn- \$90

RCA 6T1 tombstone, mint, works-\$100

Radiola 20 w/ 199 tubes- \$65

Crosley New Buddy ,cond. unknown- \$100

Hotel Radio Corp. chairside cabinet, from the Drake hotel in Tulsa, Oklahoma- \$70

Jackson-Bell mini cathedral, no speaker- \$220

Freed-Eisemann FE-15, N/T -\$40

Zenith transoceanic 8GOO5YT, black- \$150

Dershon 5-tube, with batteries and tubes- \$50

Airline cathedral, hums- \$130

Realistic ham set DX-302-\$75

Grunow 1935 console, works well-\$70

Philco 18 console Deco, restored-\$100

Grunow 660 tombstone, original grille cloth-\$110

Zenith 5S218 cube set, cabinet stripped, but restored- \$100

Terry Muncey of Radio Era Archives in Dallas donated a DVD of the complete Rider's books and it sold for - \$75

Zenith 6S229 tombstone, nice, works, with wood knobs- \$110

RCA Radiola horn UZ-1325- \$75

Box of tubes- western electrics 421A, 412A, 310A, etc- \$210

Zenith 6S229, wood knobs, restored-\$180

ARVIN midget metal- \$55

Raytheon store sign- \$45

AK M horn, fair- \$40

RCA 100 speaker- \$40

Again this was just a representative listing of some of the items sold . The auction went smoothly and we got out early around 3:30 pm and all were packed and heading back to home by 5 PM.

I look forward to seeing you all again at the two up-coming VRPS Saturday swap meets in May and August and urge all to attend the June meeting, where we will all meet at Rick Wilkins place in Duncanville, Texas for a tour of the Homer DeFord musical museum. Don't miss this one as it has a great cross section of mechanical machines, radios and even TV's displayed.



## 2008 MONTHLY MEETING PROGRAMS

**NOTE CHANGES IN OUR MEETING LOCATIONS. Meeting places change with dates. The Garden & Arts Building is located at 906 South Senter, Irving, Texas. Refer to the WEB site if you get confused. Meetings start at 2pm. (UNLESS OTHERWISE NOTED). Call us on the cell *tellie* if you get lost.**

**APRIL 19, 2008** (GARDEN AND ARTS BUILDING)

Radio broadcasting during the early days was exciting and experimental. Small power stations were the norm and antenna design was not well understood. Richard Kearley will present our program recalling his personal experience while working at stations such as WSM, of the "Grand Ole Opry" fame.

**MAY 17, 2008** (GARDEN AND ARTS BUILDING)

**Swap meet.** Starts 7am (veteran members know that people start showing up much earlier) 'til about noon. No meeting or program.

**JUNE 21, 2008** (NOTE CHANGE IN LOCATION VIA FIELD TRIP)

We will have a field trip to Rick Wilkins' **Olden Year Musical Museum**. The Museum has many mechanical music machines as well as radio and phonographs which, by the way, work. This is one of the most outstanding collections and Museums in the Southwest; you will not want to miss this tour. We will gather at the Museum at **11am**. The Museum is located in Duncanville near I20 and loop 12; 131 W. Fairmeadows Dr. You can meet us there or carpool/caravan from the Garden & Arts Building which will leave at 10am.

**JULY 19, 2008** (JAYCEE CENTER FOR THE ARTS)

**Annual Repair Session.** Bring your tired problem radios and our "experts" will have a go at helping with the circuit repair (note a change in the location). We will meet at 8-9am at the Jaycee Center for the Arts, just off HWY183. You will remember this is where we have been having our Annual Christmas party. A program will begin about 12pm when we will discuss the morning activities and experienced mentors will cover other various repair problems.

**AUGUST 16, 2008** (SENER EAST BUILDING)

**Swap meet.** Starts 7am 'til about noon. No meeting or program.

**Programs are subject to change, contingent on scheduling conflicts.**

As always, your suggestions for programs/content are welcome. If the programs do not fit your needs and you want something different, let me know. I will need volunteers in organizing other programs, so consider presenting a program yourself. Call me anytime or send me an email.

Mike Grimes

972-384-1133 (home)

972-898-7251 (cell)

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## MEMBERSHIP DUES

SEVERAL OF THE MEMBERS HAVE EXPRESSED CONFUSION ABOUT THE MEMBERSHIP RENEWAL PROCESS AND I HOPE TO CLEAR UP ANY CONFUSION. ON THE MAILING LABEL OF THE SOUNDWAVES YOU WILL FIND YOUR RENEWAL DATE- EXAMPLE 11/01/09. TO BETTER FACILITATE RECORD KEEPING WE WENT TO A SYSTEM WHERE ALL DUES ARE DUE ON NOVEMBER 1. THE ANNUAL DUES ARE \$17.50 FOR THE U.S. AND \$20.00 FOR FOREIGN. PLEASE MAIL YOUR DUES TO :

VRPS

P.O. BOX 165345  
IRVING ,TX 75016

# VRPS CONVENTION 2008

## NOVEMBER 14,15,16 2008

IT'S NOT TOO EARLY TO MAKE YOUR HOTEL RESERVATIONS FOR THE 2008 CONVENTION!

Call the Hampton Inn to make your reservations now. Tell them that your reservations are for the VRPS or Vintage Radio and Phonograph Society Convention to get the \$82.00 rate.

THE HAMPTON INN & SUITES  
1700 RODEO DRIVE  
MESQUITE, TEXAS 75149  
1-800-HAMPTON OR (LOCAL 972-329-3100)

The theme for this year's convention is RADIOLA. The time is now to start preparing your entries for the contest. Listed below is this year's categories. Notice that there are some changes in this year's list and that there are less categories.

### VRPS 2008 CONVENTION OLD EQUIPMENT CONTEST CATEGORIES

1. CRYSTAL SETS
2. 1920's BATTERY RECEIVERS
3. AC TABLE AND CONSOLE RADIOS, 1940 OR EARLIER
4. AC/DC TUBE RADIOS
5. TRANSISTOR RADIOS, PRE 1965
6. PHONOGRAPHS AND RELATED ACCESSORIES, PRE 1928
7. MICROPHONES AND REPRODUCERS
8. MILITARY AND AMATEUR RADIO EQUIPMENT
9. NOVELTY RADIOS, TUBE OR TRANSISTOR
10. OPEN CATEGORY - ANY RADIO OR PHONO ITEMS THAT DO NOT FIT THE LISTED CATEGORIES
11. CATHEDRAL RADIOS
12. TEST OR SCIENTIFIC EQUIPMENT
13. VINTAGE TUBE AUDIO (NEW CATEGORY)
14. RADIO OR PHONOGRAPH EPHEMERA
15. CHARACTER RADIOS- RADIOS THAT RESEMBLE A REAL OR FICTITIONAL CHARACTER
16. ART DECO OR CATALIN RADIOS
17. 2008 CONVENTION THEME- RADIOLA



## VRPS WEB SITE UPDATE

Our web site has been up and running for several years and continues to be the front door to our organization for many newcomers. This is true even though it has been somewhat out of date for a period of time. However, if you have not checked lately, you will be pleasantly surprised to see that the site has had a face lift. You are encouraged to check often for a schedule of coming events as well as documentation of those events as they pass. Check the 'Monthly Meeting' section for the latest agenda, dates, place and times. We intend to make a better effort to be timely with the information you see on the site. A question I hear often concerns access to the "Members only" portion of our site. One of the things you will find here is the most current list of members. A password and ID are required to gain access to this information. In case you do not remember it, here is all you need to know:

Remember, this is your website. Use it. It has some great links to other internet resources important to our hobby. There are articles found on the site which were determined to be too lengthy to appear in our *Soundwaves*. If you have written such an article and would like to include it on the site, please contact Mike Grimes. There is a classifieds section where you can list your wants/needs, for sale, services, etc. Our website gets lots of hits by collectors and non-collectors all over the world. Advertising here is free and may pay big dividends. Our webmaster, Joe Schneider will monitor this section and remove listings after 6 months unless it is renewed. Of course if you need to adjust the ad sooner (i.e. you sell the radio you had advertised), be sure to send the webmaster an email to update.

## VRPS, INC

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