



## *The Grid Leak*

*January/February/March 2019*

2019 HVRA Annual Convention Celebrates The 100<sup>th</sup> Anniversary of  
the Radio Corporation of America 1919



Original Corporate Logo for RCA, 1919-1929



Above: RCA Corporate Logo 1929-1968

Below: RCA Corporate Logo Post 1969

# **RCA**

## ***From The President***

Bill Werzner,  
HVRA President

### **At the bench**



I want to begin by wishing everyone a belated Happy Hanukkah, Merry Christmas, and best wishes for a Happy and Prosperous New Year! This time of year, a lot of us like to reminisce about the year that passed us by all too quickly making us another year older. We celebrated HVRA's fortieth anniversary last February with a great convention that I had miss due to an unexpected heart condition that kept me in the hospital. VP Jerry Sirkin took the reins along with my good friend Jim Sargent, VRPS President and Auctioneer. Together with our loyal members who voluntarily stepped up to the plate and took command, our convention was brought to a successful conclusion. As I said before, kudos to you all for a job well done! Then there was the Alvin, TX swap meet last May, Texas City HAM Fest in July, the Electronics Parts Outlet July demo, the Hobby Airport Museum in November, Battleship Texas expo in December, and the acquisition of several donation estates that combined to make 2018 a successful year. Thanks to your hard work and willingness to volunteer our treasury has also remained healthy, so don't forget to renew your annual membership as the New Year begins.

Looking ahead less than two weeks as "Auld Langsyne" chimes in the distance, we will celebrate the season with our annual post-Christmas / New Year's party on Saturday evening, January 12 at the Doubletree by Hilton next to Hobby Airport. Come enjoy the merriment, fun auction, door prizes, and fine dining. Where else can you find a quality evening like that for only \$25.00! We need your support as we have committed reservations for fifty guests so sign up now! One month later we will celebrate HVRA's forty-first anniversary at Marriott Houston North Airport with a two-day auction, seminars, equipment contest, and Saturday night banquet so now is the time to prepare and get your reservations in.

With several estates still in our storage unit, and more waiting in the wings, the February convention auctions will be well worth attending. I know there is concern about the declining value in vintage radios and electronics overall. One belief is this is due to the market becoming saturated as older collectors dispose of their collections. An aging population coupled with a younger generation that has little or no identity with vintage electronics is another. This is a valid argument as we tend to identify with things of our youth such as vintage cars etc. Then we have to also factor in the overall economy that affects our income and how much we are willing to invest or spend. I know I sound like I'm harping about this one item that keeps bugging me as I look back over the last four decades. We need to prepare to pass the torch on to the younger generation and in order to do that successfully, we must somehow get them interested and recruit them into our hobby. With that said, let's focus on the future, and share ideas on how to expand memberships, not only in HVRA, but other organizations like ours as well. Our future depends on us setting this in motion; true, the hour is late, we must get moving before time runs out. Father Time is nipping at our heels. **Bill Werzner, President, HVRA.**

## HVRA Officers

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### **HVRA Event Schedule: January through April 2019**

Check our web site [www.hvra.org](http://www.hvra.org) often for unexpected schedule changes, or special announcements. Remember, the Board of Directors' meetings are open to all members. This is where you can share ideas, suggestions, or express concerns with our officers.

**January 8 (Tuesday) 2019** [Monthly Board of Directors Meeting](#) @ 6:30 pm - 8:30 pm Bayland Community Center, 6400 Bissonnet St Houston, TX As always, all members are welcome to attend. Pizza Served!

**January 12 (Saturday evening) 2019** [Annual HVRA Post Holiday Party](#) Double Tree Hilton Hotel Hobby Airport, 8181 Airport Blvd., Houston TX (near Hobby Airport). See details in this issue and please send in your reservation asap.

**January 26 (Saturday) 2019** [Monthly Members Meeting](#) Set-up starts at 8:00 am and the meeting starts at 8:30 sharp. Bayland Community Center, 6400 Bissonnet St Houston, TX Program: AC-DC Troubleshooting by Bill Werzner

**February 8 and 9 (Friday and Saturday) 2019** [Annual HVRA Convention](#) Marriott North Houston Airport Hotel, See details in this issue. Send in your reservation asap!

**February 12 (Tuesday) 2019** [Monthly Board of Directors Meeting](#) @ 6:30 pm - 8:30 pm Bayland Community Center, 6400 Bissonnet St Houston, TX Pizza Served!

**February 23 (Saturday) 2019** [Monthly Members Meeting](#) Set-up starts at 8:00 am and the meeting starts at 8:30 sharp. Bayland Community Center, 6400 Bissonnet St Houston, TX Program: Contest: Bring a Collection of Anything and Show it Off!

**March 12 (Tuesday) 2019** [Monthly Board of Directors Meeting](#) @ 6:30 pm - 8:30 pm Bayland Community Center, 6400 Bissonnet St Houston, TX As always, all members are welcome to attend. Pizza Served!

**March 23 (Saturday) 2019** [Monthly Members Meeting](#) Set-up starts at 8:00 am and the meeting starts at 8:30 sharp. Bayland Community Center, 6400 Bissonnet St Houston, TX Program: Unusual Amplifying Devices Used In Electronics. Show off an unusual amplifier. Presented by Reid Shipp.

**April 9 (Tuesday) 2019** [Monthly Board of Directors Meeting](#) @ 6:30 pm - 8:30 pm Bayland Community Center, 6400 Bissonnet St Houston, TX As always, all members are welcome to attend. Pizza Served!

**April 27 (Saturday) 2019** [Monthly Members Meeting](#) Set-up starts at 8:00 am and the meeting starts at 8:30 sharp. Bayland Community Center, 6400 Bissonnet St Houston, TX Program: Show off a Transmitting Tube Amplifier Contest (transmitter must be from RCA or Eimac tube manual diagram)

## **HVRA Meeting Programs January Through April**

Program chairman Reid Shipp has been busy planning meeting programs for the new year. The January program will be general program about trouble shooting AC-DC radios. If you are into restorations, don't miss this one. The club's large radio display board with a working AC-DC component layout will be presented for all to see. In February, Reid will once again invite members to bring their collections of whatever, tubes, bottle caps, hubcaps, etc. No live critters including fleas, fire ants, or poisonous plants please! Then in March, Reid Shipp will present a program on unusual amplifying devices used in electronics. April is one you will want to prepare for. This will be a competitive contest whereby a transmitter based on a design from either the Eimac or RCA Transmitting Tube manual will be shown. Show the schematic along with the transmitter, but use a dummy antenna as a precaution if a demo is requested.

Would you like to provide a presentation at an upcoming meeting? We would welcome your contribution. Just tell Bill Werzner, Reid Shipp or any HVRA Board member of your proposed presentation and we will work with you to get it scheduled.

## **Mark Your Calendars For Upcoming Special Events**

Our annual Post Holiday Party will be held Saturday evening, January 12 at the Hilton Double Tree Hobb Airport located at 8181 Airport Boulevard, Houston, near Hobby Airport. Please register in advance and copy the form below and mail it to the club to make your reservation. Or if you are a last minute decider, call Bill Werzner (713-721-2242) before Wednesday January 9 to tell him you are coming. The "Southern Comfort" Dinner Buffet will be served with cocktails starting at 6:00 and dinner and program at 6:45 PM. Price is \$25.00 for adults and \$10.00 for children under 12. This is the same rosemary baked chicken and beef tenderloin dinner that so many raved about several years ago. Where else can one go for a buffet like that one for only \$25.00? A cash bar will be open across the corridor from our banquet room. Following dinner, we will have our traditional fun auction and prize drawings. We have reservations for fifty and can expand that number if necessary so let's have a good turnout and celebrate during an evening of fun. Plan to bring one radio related item and one household item to donate during the auction, but NO JUNK PLEASE!

### **HVRA Post Holiday Party January 12, 2019**

Please mail this reservation along with check made payable to HVRA, P.O. Box 31276, Houston, Texas 77231-1276. Reservation deadline January 7, 2019. Adults \$25.00, Child under 12 \$10.00

**Member 's Name** \_\_\_\_\_

**Number of Adults** \_\_\_\_\_

**Address** \_\_\_\_\_

**Number of Children** \_\_\_\_\_

\_\_\_\_\_

**Number of Guests** \_\_\_\_\_

## **Silent Key: Doug Balla**

Douglas Balla, 59, of Katy, Tex., passed away after a brief illness Saturday, Sept. 9, 2017. Doug is survived by his wife of 33 years, Laura, one son and brother along with several uncles. He graduated from Lincoln Electric Welding School in Cleveland before leaving Ohio for Texas in 1981, with the love of his life, Laura. He had a long career as a tool repair technician working for such prestigious firms as Porter Cable and Makita Power Tools. Doug was an accomplished Ham Radio operator with the call sign KD5VDH and an active member at St. John Vianney Catholic Church in Houston. As a long-time member of HVRA, Doug is sadly missed by all of us who were his friends and knew him for many years.

## **HVRA Displays Radios at the November Vintage Houston Event**

On Friday and Saturday, November 9 and 10, HVRA participated in the annual Vintage Houston Show held at the Hobby Airport Museum. Vintage Houston is an organization that promotes fun and fashion from the by-gone eras. For the past several years, HVRA has been invited to set up some radios and create a display showcasing our own "vintage" hobby or collecting and restoring antique radios and similar items. Many members attended and had a good time speaking to attendees at the show as well as showing off their own radios. Hopefully you will consider participating in this fun event next year!



HVRA Members setting up a radio display. From left: Jerry Sirkin, Mike Monsour, Don Stickley, Jim Angus, Abdullah Soliman, Bill Werzner

## **Christmas 2018 on the Battleship Texas**

**By Dave Herlinger**

On a chilly and drizzly Saturday December 8 morning, several members of HVRA boarded the wet deck of the Battleship Texas, carried tubs of gear across the gangway, dragged them down steep steel stairs, and set up a display of equipment in Casemate 4. At the urging of Bill Werzner, a longtime docent and a restorer of the sound system on the Texas, three HVRA members had spent the previous Saturday going through an orientation

session and tour to become volunteers aboard that remarkable ship. The Texas was built over 100 years ago and the ravages of salt water and time constantly eat away at its steel hull. The ship is now in the care of Texas Parks and Wildlife. It is the only remaining “Dreadnought” battleship in the world that saw service in both World Wars. Dave Herlinger, Doug Kamler and Don Stickley had to complete paperwork and background check to join the ranks of volunteers who assist with restoration, curatorial, or docent work. After we boarded the battleship we were joined by Bill Werzner, Mike Monsour and Ed Curry.

Bill has been a member of the Battleship Texas First Texas Volunteers for quite some time, and over the years, been fortunate to have met a number of the men who had served on that ship in WWII. As a Texas docent, Bill leads tours through the ship and passes along the stories told to him by those sailors (sadly, now mostly gone). I’ve been on a couple of Bill’s tours before, and the stories of those veterans he met bring the ship’s history to life in a most meaningful way.



Don Stickley demonstrates a tube tester to the iPhone generation.

Don used a modulated signal generator to send music a few inches over the “air waves” to his Bakelite sets.

We weren’t expecting a big crowd due to the morning’s cold and rain, but after lunch we started getting more traffic. By the end of the afternoon, Mike had tallied 95 people who were introduced to the HVRA and learned something about the vintage “technology” we had on display. A big hit with the 6 to 10 year- old kids were the tube testers. Bill had brought a voltage rectifier that glowed purple when tested, and a magic eye that glowed green, so the kids were given the opportunity to flip all the switches and turn the dials to “test” the tubes! Bill hooked up his oscilloscope with a microphone so that the kids could “see” their voice on the CRT. This was fun and led to an assortment of loud vocals from the youngsters. Mike brought a piece of military gear that had a large number of knobs to turn which was fun for the little ones.

As “newbies” to the volunteer ranks, Doug, Don and I were a little disoriented while trying to figure out how to haul our gear from the deck down into the ship to Casemate 4. As all of us are three times the age of the sailors who manned this ship, and because our knees and hips aren’t what they used to be, we had to move slowly to avoid dropping the tubs or banging our heads. We nevertheless managed to get our gear safely into the casemate. We brought a variety of equipment to display including a couple of 1939 Bakelite tabletops, a Sargent Welch demonstration 5-tube display set with circuit diagram, a 1948 Zenith Transoceanic, a 50’s aqua blue plastic battery-powered portable, a 1920’s quack medical machine, a working oscilloscope and a couple of



Dave Herlinger shows off equipment to a future member

We had folks of all ages, from graybeards to toddlers, and all appeared to a good time. The club got great exposure without (to quote Bill) “spending a dime.” We handed out club brochures, gave a plug for EPO to anyone who had kids who might be interested in science projects, and Bill said we were the most popular spot on the ship! Doug, Don, Mike and I enjoyed meeting and talking with the visitors who, for the most part, didn’t know what a vacuum tube was.



Signals First Mate Bill Werzner sends secret Morse code messages to the Big Guy at the North Pole

Bill and Ed took turns down in the ship’s post office, operating a telegraph to send messages from kids to Santa. Unfortunately for them, that spot was pretty cold, while Casemate 4 was nice and warm. When I made a run to my car at noon, I stopped to talk to two volunteer ladies standing outside the gift shop handing out Scavenger Hunt sheet for children in the cold wind. I was shivering and I asked if they weren’t freezing, and they said not at all. They were keeping warm by talking!

I met several other very enthusiastic volunteers at other spots of the ship, who welcomed us joining the ranks. Bill told us that many more volunteers are needed, particularly at busy times like Easter Sunday and on Battle of San Jacinto reenactment day. In addition to the regular tours, for an extra fee, visitors can take special “hard hat tours” that go into places not seen by the general public. You bring a flashlight, don the hard hat, and venture into areas that don’t have working lights.

These are only given during cooler months because the interior of the ship gets quite warm during the summer. This tour is not recommended if you are claustrophobic or afraid of the dark! If you have never aboard the Texas, take a ride east of downtown past refinery row along Route 225 to the berth near the ferry, and experience the Texas firsthand!

Becoming a volunteer can happen if you complete an online registration form, give the name of a reference, and wait for the completion of the background check. After that happens, you show up on the ship on a Saturday for an orientation, meeting some of the employees of TP&W who work on the ship, go through an orientation about how to interact with visitors, go on a tour of the ship with a docent, and watch a couple of videos regarding OSHA requirements and the ship. There are three ways that you can participate: as a docent leading or assisting with tours, helping with curatorial work by using Excel and Photoshop to record documents, photos, and artifacts, or in restoration of the ship by cleaning, disassembling and painting. We saw a crew working on one of the antiaircraft guns, greasing the gun mount and removing rust and painting. We also saw some of the voluminous archives that need to be gone through and preserved. They need also people to keep an eye on visitors so that they don’t harm themselves or damage the ship, and folks to lead tours that educate the public.

There is no pressure regarding what you choose to do (after all, it is voluntary) and they have two Saturdays each month where, if you come, you will be told what you can do to help. So, if you have an interest in helping to preserve this incredible piece of naval history, in keeping alive the memories of those who served aboard,

and sharing that history with others, consider joining the ranks of the Battleship Texas First Texas Volunteers. For more information, talk to Bill Werzner and go to the FTV website <http://www.firsttexasvolunteers.org/>

## HVRA Technical and Restoration Articles

### **The Trouble Shooter by Bill Werzner “Midnight Phi Confusion”**

Someone once asked “what is it like repairing old radios and how do you do it?” I thought about it for a few seconds to switch on my memory bank from my sophomore psychology class in 1963 at the University of Evansville and came up with what I thought was an appropriate reply. You see, “with these old radios I begin by putting myself in the temporary frame of mind of a paranoid schizophrenic”. By that I mean everything is suspect and out to get you! This is especially true when you are having one of those days when you feel you have developed an inverted Midas Touch (when everything you touch seems to turn to s\*\*\*), Murphy’s Law prevails, and you contemplate calling a priest to exorcise the demons from your workshop.

Being tired and overworked one night I found myself in that situation while trying to restore a customer’s Zenith “cube” radio. To make matters worse, someone had attempted to restore this set before it was brought to me. It looked like an intoxicated spider long ago tried to rewire it and gave up. Then to make things even more confusing the original model number was missing and someone wrote, model 6S126 on the bottom of the wood case. There was no Zenith 6S126 listed in Riders index, but scanning through the Zeniths in Vol. VIII a 6S222 looked to be pretty close.

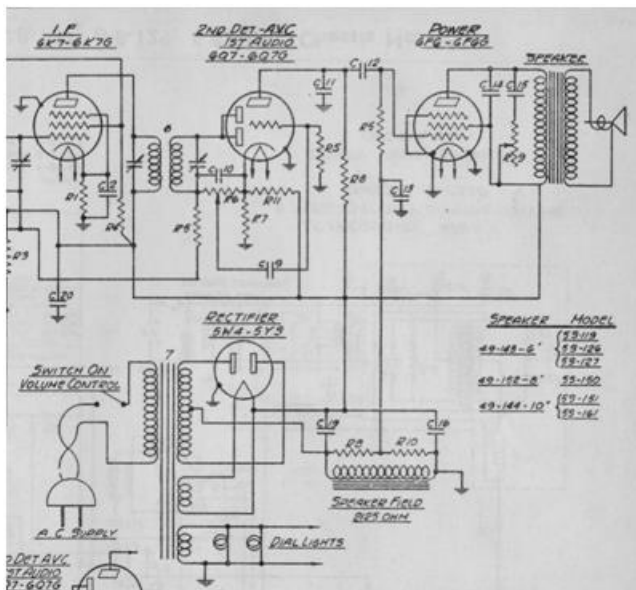


Fig. 1 Zenith model 5-S-126 with inverted phi filter network. Note the positive terminals of C19 & C16 are connected together and one side of the speaker field coil is connected to chassis ground.

I copied the schematic and back to the shop I went with it in hand hoping to figure out this set before midnight. Nothing in the power supply made any sense, but then in my sleepy stupor I realized I was dealing with an inverted phi network. Notice in fig. 1 how the filter capacitors C19 & C16 positive terminals are connected together. The schematic I was using showed a conventional phi network with the filter capacitors’ positive terminals separated. Notice how similar the power supply diagrams appear in figs. 1 & 2 – especially when it’s midnight and I’m struggling to keep my eyes open.



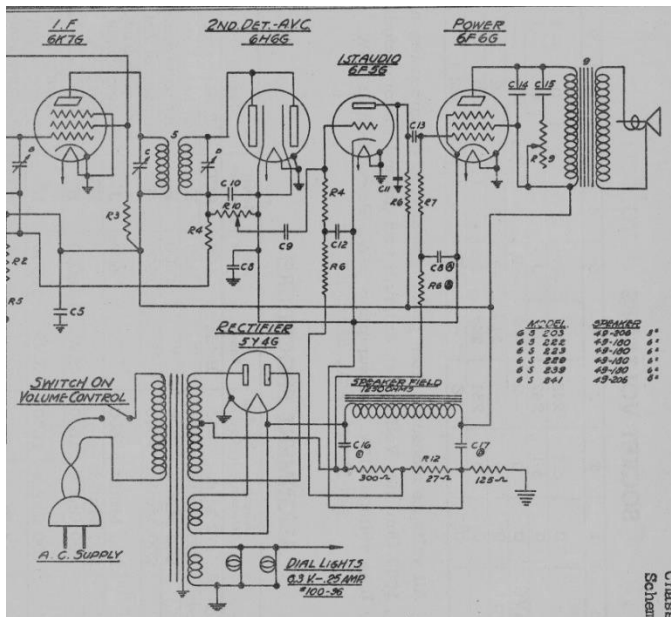


Fig. 2 Zenith model 6-S-222 with non-inverted phi filter network. Note how the positive terminals of C16 & C17 are separated and negative terminals are connected across the B-resistors where negative grid bias is developed.

## A Quest For Rock and Roll, Without Sex and Drugs

By Tom Frobase, N3LLL

Lima, Ohio is a city of 50,000 in northwestern Ohio. Growing up there in the 60's I had the fortune at 13 years old to know what I wanted to do with my life. I knew from a very early age I wanted be involved electronics. At that age I did not know how to get into electronics, but I knew that is what I wanted to do.

At 14, I was riding my bike to Fair Radio, a local surplus company, digging through their scrap and tearing old TV's apart for the parts. I did not have much money, so my projects were done with leftovers and surplus. I was also fortunate my father had collected a wonderful toolbox full of exotic tools, gathered while was a mechanical technician at a Lockheed in Glendale CA before WW2. Drills, mills, taps, dies and Swiss files were among the tools, not many kids had this kind of tools at home to use.

On my 15 birthday I received a hand-held saber saw. I began buying scrap aeronautical electronics chassis from Fair Radio recycling the components and then, using my new saber saw, I cut the tops out. I made a new top out of a fresh piece of aluminum drilling and tapping the edges to fasten the new top to the recycled chassis. I built my first stereo system this way. I didn't look very good, but it worked! My go to reference book was an ARRL Handbook from 1963, which had a tube manual and lots of other information in the back.

Suddenly I realized this was not the model I assumed. This radio had five tubes so it had to be a 5 – S something! Next morning back to my Riders I went, and there it was, in volume VII – a Zenith 5 – S – 126. This shows that even us old timers get fooled occasionally and a good reason to examine tubes and tube layout first. Perhaps an initial, but temporary, psychotic trip like I mentioned earlier, and the whole thing would have been figured out. The reason for the inverted network, or so I have been told, was to circumvent an RCA patent. You will encounter these circuits in other manufacturer's radios so if you're a novice, or just a sleepy old timer, keep your guard up for the inverted phi. Check the tubes first, then, watch out where you poke your fingers!

In the 60's, small cities like mine didn't have Rock and Roll radio stations, Lima, many miles from major markets, was devoid of stations playing the Rock music. During the day the station CKLW in Windsor Ontario in Canada, across the river from Detroit, played our kind of music. Unfortunately, when the station lowered its power at sunset, it could not be heard at night.

Major market cities all had clear channel broadcasters, 50,000 watts of power and only one station per frequency. Night time broadcasts of the best rock and roll came from WBZ Boston, WCFL and WLS in Chicago, and WABC in New York. All on the AM radio dial, FM was nearly nonexistent at the time. Fortunately, with a good radio and antenna these stations could be picked up in the Midwest.

My personal quest became the challenge to find the ultimate radio to listen to all night rock and roll. My parents old RCA console, which found its way to my room, was my first prototype. I replaced the defective tubes and capacitors in the set, it worked well, but not great. I tried an outside antenna which improved reception but there was still a lot of fading.

I rode my bicycle to the local automobile junk yard in search for an inexpensive tube car radio. I heard they had great reception. Five dollars bought a mid-50's Philco car radio, the power supply and amplifier being all in the same chassis. I still wonder how I got the radio home on my bike, it probably weighed 25 pounds. Once I got it home, I was not sure what to do to make it run. It was hard in those days to make high current low voltage power supplies, in this case 6 volts at 10 amps plus. Even if I could have made a 6 volt supply the vibrator in the radio was too loud to have in my bedroom.



After a few weeks of thinking about the problem, I resolved to remove the vibrator supply and replace it with a 120 VAC power transformer. All that was required was an AC transformer with a 500 volt center tap and a 6 volt filament winding. In those years Fair radio had hundreds of transformers to choose from, I found my replacement with the same form factor as the original vibrator transformer. It made for a neat retrofit.

Philco, originally "The Philadelphia Electric Company", was the electronics arm of the Ford Motor Company. In those days car electronics were extremely well made, they were built to take the punishment of bouncing around in an automobile on unimproved roads. To tune the radio, ferrite cores were moved in and out of coils which provided great selectivity as well as sensitivity and stability. This is called permeability tuning. The radio also had a stage of RF amplification.

The radio was a winner. I built an external speaker box, the radio had a 6AQ5 output, probably about 5 watts of output. I ran a long wire antenna to an elm tree from my second story window which was about 40 feet long. When I first tested the radio, I found I could receive WLS in Chicago during the day, it was

unheard of, Chicago was 250 miles away. At night it was a wonder, I fell asleep to WBZ in Boston and woke up to it in the morning, it was nearly as clear as the local radio station. I was the envy of my peers. Over the next couple of years, I also built radios for several of my friends.

## **Solder Bits (short articles and repair notes—contribution**

### **Submitted by Bill Werzner: Book Recommendations for the Radio-ologist**

Based on my many years of radio restoration and repair – including circuit modifications that are sometimes necessary when replacement components cannot be found, these books are essential.

[1] “RCA Receiving Tube Manual” (pre 1967 series preferred). I rely mostly on Tech. Series RC-21.

[2] “ Elements of Radio Servicing”, 3rd edition, by Marcus & Levy copyright 1967, by Mc Graw - Hill Inc.

[3] “Understanding Radio”, (2<sup>nd</sup> edition) by Watson, Welch, and Eby, copyright 1951, McGraw –Hill Inc.

[4] “ Radio Handbook”, (10<sup>th</sup> edition) by Editors and Engineers, copyright 1946, Kable Brothers Co.

The “Radio Handbook” was published yearly so those editions prior to 1960 suit our needs well.

If you are planning to collect or repair vintage Zenith radios from the 1920’s “The Early Zenith Radios”, by our own Gilbert Hedge with Durell Roth, copyright 2014, is a must to have in your bookcase.

To determine the value and other information about vintage radios get a copy of “Collector’s Guide to Antique Radios” by John Slusser and Staff of Radio Daze. The internet offers a plethora of information on radios and sometimes just typing in the name and model of a radio in GOOGLE will produce more than enough information to get you through a repair or restoration project. It is also nice to have a set of Rider schematics Vol. I – XXII on hand along with some of the early Sam’s volumes too as some of the schematics you may find on “Radio Nostalgia” did not copy well for viewing or printing. Copies of the books I mentioned above often appear in our auctions, but used book stores, and the internet (E Bay for example), are also excellent sources for finding good used copies that are not expensive. So, to get started in this fun hobby and a way to earn extra cash, acquire the necessary literature, learn the basics, and then melt solder. Bill W.

NOTE BY EDITOR: Another great series on basic radio repair are the books by Ray Bintliff, W1RY, called “Practical Radio Repair”, available from various sources on the internet. Additionally, Alfred Corbin’s book, “A Modern Look at Antique Radio Repair 4<sup>th</sup> Ed.” Is geared toward beginners restoring radios.

### **Submitted by Tom Taylor: Considerations in the Replacement of IF transformers**

Because of their color-coded wiring Intermediate Frequency (IF) transformers could be considered polarized. Indeed, those wires are color coded for a reason and you should either pay attention to it on their removal or understand the color code when installing a replacement. Although manufacturers have not always followed the RMA standard color code it can save you some hardship if you keep it in the back of your mind. The color red, as you might expect corresponds to a B+ connection while black corresponds to an Automatic Volume Control, AVC connection, you know, that voltage near and below ground that controls grids of ‘remote cutoff’ tubes like the 6D6, 6SK7 and 12BA6. The plate connection for signal from the prior stage is blue and the grid connection for signal to the following stage is green, “goesinta” and “goesouta”. Here again is a good place to

keep your input and output wires separate from each other to prevent capacitive coupling between those leads which can lead to losses or positive feedback AKA oscillation. This is best accomplished by using the shortest possible wire length and where the transformer serves the diode or detector stage, that grid wire should be kept close to the chassis to benefit by a small amount of capacitive coupling to the ground of a chassis. Replacement of these transformers have still more considerations. For instance, some have low gain that are best suited for connection to a detector just downstream while some with higher gain that are best suited for connection to the next IF stage. Some even can have a third winding where better selectivity is desired for that stage. Consider these windings and their companion trimmer capacitor as an LC tank circuit where resonance of the pair gives the highest impedance and best coupling from coil to coil for their tuned frequency. They are not all interchangeable.

**Submitted by Todd Schutte: [A Question For Experts on Early Phonographs](#)**

I need to replace the cord on an Atwater Kent Phonograph Attachment. Connecting new wire to the body of the attachment is straightforward, but replacing the wire to each of the leads has proven to be more difficult. It appears to be a solder connection, but I have been unable to melt the solder. Has anyone successfully replaced



the wire on these leads, and if so how did you do it ??? Please contact me at [tmschutte@icloud.com](mailto:tmschutte@icloud.com). See the pictures below.



**Submitted By Tom Taylor [Dealing With An Open Primary \(electrical, not political....\)](#)**

One way of dealing with an open primary on a transformer is to drive one of its secondary windings using that same voltage from another transformer. With those intentions we pick the highest current secondary winding of our deceased original. In this example we assume availability of a 6.3 volt filament. Of course the secondary current rating of that outboard transformer must now provide current or shall we say power  $\{P=IV\}$  enough for the whole radio, B+ and filament. As a result, the gimpy original will see more heating in the chosen filament winding because it will carry the added B+ power loading. Assume our gimpy original transformer provides 300VDC at 90 ma (reasonable current for our 6 tube radios) = 27 watts. Add to that the filament power at 6.3 volts X 6 (tubes) X 0.3 amp (per tube filament) = 11.3 watts PLUS as much as 6.3 VAC X 0.6 amp = 3.78 watts. That 3.78 watts of extra filament current would let us serve the needs of even the stronger 6L6 audio output tube. Our new revised filament total is then ~ 15 watts. The total radio power needed off the secondary of that second transformer is now 27 plus 15 watts = 42 watts, the same power to be handled by the gimpy transformer 6.3 VAC winding. This value equates to a needed minimum  $P/V = 42/6.3 = 6.7$  amps rating required of an outboard 6.3 volt secondary transformer. Best have some reserve

current to minimize its heating so lean towards the standard rating of a 10 amp 6.3 volt secondary. Oh yes, it would be advisable to watch for unacceptable heating of that original transformer after it is put to use because we don't know what issue may have led to that open primary. It could have been internal to the transformer.

## **HVRA 2019 Annual Convention**

**By Jerry Sirkin HVRA Vice President and Convention Chairman**

**281-844-4124 ([gsirkin@aol.com](mailto:gsirkin@aol.com))**

**Registration Form is attached to this Grid Leak and can be found on the HVRA website (HVRA.org).**

**NOTE: Mailing address has changed to my home, from our HVRA P.O. BOX**

To ease the load on our regular volunteers, we need your help with packing, labeling and transporting estate items, setting up convention displays, recording during the auctions (yes, you can still bid), assistance as an auction handler. Please contact Jerry Sirkin or Bill Werzner if you want to help.

**Convention Location:** Houston Marriott North (Greenspoint Area) Dates: February 8th and 9<sup>th</sup>

For all HVRA guestroom reservations confirmed prior to January 25, 2019, discounted rates will be \$94.00/night (including free Wi-Fi) for Thursday – Sat, Feb. 7<sup>th</sup> – 9<sup>th</sup>. Check out no later than Sun. AM, Feb. 10<sup>th</sup>. Reservations can be made by calling 1-800-228-9290 or through the HVRA web link (see HVRA.org for the Marriott web link). If your desired room type is not available or if you have any problems making reservations, please contact me. The Marriott is also discounting their buffet breakfast to \$15.00 (including tip and gratuity) for Fri. – Sun. Coupons will be given to all HVRA members attending the Convention and their family guests (you do not need to be an overnight guest to receive this discounted breakfast).

**Manufacturer and Theme** for this Convention: RCA. Jeff Heller has volunteered to make a Friday presentation addressing the 1919 founding of RCA and its subsequent history. I am still looking for a volunteer to give a brief (20 – 30 Minute) technical discussion about the electronics of the early RCA radios. If you wish to volunteer and can bring a couple of examples, please contact me at 281-844-4124 ([gsirkin@aol.com](mailto:gsirkin@aol.com)). Convention Events will include: Contest Room, Three Auction Sessions, Swap Meet, Raffles, RCA Tech Session and Presentation, Cash Concessions, Awards Banquet Dinner with Guest Speaker Steve Smith (news anchor and director at Houston's KPRC-TV – Ch. 2 and KHOU-TV – Ch.11).

**OLD EQUIPMENT CONTEST:** Here is a brief summary of Contest Categories and Rules. Complete contest categories and rules are posted on our website.

### **HVRA 2019 OLD EQUIPMENT CONTEST CATEGORIES**

Please review the contest categories and select the appropriate category for your exhibit. You must designate a category for each of your exhibits (for example, #3 1920's Battery Receivers). Although you may enter up to two exhibits in any one category, you may not enter the same exhibit in more than one category. If there are any questions please contact the Contest Chairperson (Tom Taylor) at [IHCRally@Yahoo.com](mailto:IHCRally@Yahoo.com) or 281-229-2970. Note that some contest categories have been modified from prior HVRA convention contests.

1. Wireless/Spark Equipment
2. Crystal Receivers and Related Crystal Equipment

3. 1920's Battery Receivers
4. Cathedrals, Tombstones & Consoles (wood)
5. Table Receivers, Tube (wood)
6. Table Receivers, Tube (non-wood)
7. Transistor or other Portable Radios
8. "Modern" Electronics, items at least 10 years old. This could include computers, newer radio equipment, game consoles, calculators, unique electronics, portable Hi-fi (Walkman/Boom Boxes), etc.
9. Phonographs, Speakers, Reproducers & Microphones
10. Miscellaneous Vintage Electrical Equipment (Examples include Telephones, Telegraph, Scientific Test Equipment, Electrical Devices and Television)
11. Kit Radios and Electronics
12. Hi-Fidelity Equipment
13. Amateur Radio Equipment and Accessories (At Least 40 years Old)
14. Military Electrical and Electronic Equipment
15. Replicas & Vintage Style Creations
16. Ugly Radios
17. Foreign Radios
18. Special Convention Theme: The Founding of Radio Corporation of America (RCA). Display any items including radios, phonographs, documents, or other electronic material that represents the founding and growth RCA. So use your creativity; we will present a special award just for this category.
19. Components, including Vacuum Tubes
20. Open Display

### **OLD EQUIPMENT CONTEST RULES**

The official rules for the 2019 HVRA Old Equipment Contest are:

1. All contestants must be registered for the Convention.
2. Previous displays winning First Place in the 2017 or 2018 contests may not be entered in the competitive categories of the 2019 contest. These items may, however, be shown as non-competitive displays.
3. A contestant may have only two displays in any one category, but may enter any number of categories.
4. A display is eligible for only one category.
5. Reproductions must be properly identified.
6. All entries must be in good, clean, showable condition. Equipment that is entered in un-showable condition may be disqualified and removed from the contest in the judgment of the Contest Chairperson.
7. The Contest Chairperson will determine the appropriateness of questions or issues regarding entries and any other rule interpretations.
8. In case of a tie, the judges or Contest Chairperson may request a functional demonstration of the equipment.
9. No fee will be charged for entering the contest.

10. All entries must be in place no later than one hour prior to judging, on the day of the contest.
11. Devices of foreign manufacture may compete in any appropriate category.
12. Contestants must refrain from discussing entries with judges. If judges have questions pertaining to an entry, they will be voiced to the contestant through the Contest Chairperson.
13. The Contest Rules may not cover all issues that arise in relation to the HVRA Old Equipment Contest. The Contest Chairperson has the discretion to make any decisions necessary in relation to Contest to insure a fair and orderly contest.

If you have any questions about the contest at any time, please contact Tom Taylor, Contest Chairman, 281-229-2970 [IHCRally@yahoo.com](mailto:IHCRally@yahoo.com)

**AWARD CATEGORIES:** First and Second place ribbons will be awarded to the winner in each contest category. You must designate what category you want to enter your exhibit in and you can enter an exhibit in only one category but you can enter two displays in any one category. We have several special award categories: Restorations, Vintage Equipment, and Artifacts and Collections. You must designate for each separate exhibit which of these three categories you wish to be considered for among these top three awards; if you don't make a designation, the judges will make one for you. All persons registered for the Convention can vote on the Best of Show award. *We also have a new award category, the Exhibitors' Award, worth \$50. This will be voted upon only by each of you who have entered a display in the Old Equipment Contest.* You will be given a special ballot for this purpose. We will also award special plaques for first place awards in these special award categories as well as our Convention Featured Category, Radio Corporation of America (RCA). There will be a New Contestant award for the best exhibit from someone who has not entered our Convention contest previously.

**HELPFUL HINTS FOR THE TOP THREE CATEGORIES:** Restorations category: judges will consider the quality of your work and documentation showing work done, before and after photos, schematics, history relevant to the radio, rarity, and the overall presentation. Vintage Equipment category: include information about the history of the radio or manufacturer, how the equipment was acquired, rarity, photos, information about clean-up or refinishing, original ads and similar information. Artifacts and Collections category: can include vintage magazines, software, tubes, toys, signs, photos, fans, radio/tv clocks, books, dolls, boxes, uniforms, mannequins, advertising and similar material related to electronics, radios, and communications equipment. Judges will consider overall quality, information describing history of the items, rarity, how acquired, before and after photos and any other relevant information that help make a good display.

**GENERAL INFORMATION:** We will set up all exhibits in the 20 contest categories in the same display area as best we can. You can set up your display as you wish but the Contest Chairman reserves the right to adjust displays as may be needed to assist with limited space in some instances. Please be considerate of others who will also need space to display their items. If you have questions or concerns, see the Contest Chairman. Be sure to fill out a contest entry card for each of your entries and state on it which of the three special categories you wish to compete for (Restoration, Vintage Equipment or Artifacts and Collections) !! The contest room will be LOCKED when the Contest Chairman or his designee is not present. When the room is LOCKED, NO ONE will be admitted. Judging will be conducted beginning at 9:30 am Saturday. NO ONE IS ADMITTED at that time. The Decisions of the Contest Judges are FINAL!

**HOUSTON VINTAGE RADIO ASSOCIATION  
2019 ANNUAL CONVENTION  
AWARDS BANQUET GUEST SPEAKER  
STEVE SMITH**



Steve Smith grew up in SE Indiana, not too far from Cincinnati. He was brought to Houston, in the 1960s, and to KPRC-TV Channel 2 by the legendary Texas broadcast journalist, Ray Miller. Steve learned the city as a reporter and, soon, was anchoring, writing and producing two evening newscasts. He initiated, and was the first host of the long-running KPRC Scene at 5 program.

Leaving KPRC-TV in December, 1973, Steve spent 3 years in Pittsburg with KDKA-TV before returning to Houston and KHOU-TV Channel 11 in 1976. He remained with KHOU until his retirement in 1999. During his 30 years at Channel 2, and Channel 11, Smith anchored two, sometimes three daily newscasts. He also covered all of the important news events of the era, from Hurricane Alicia to the Challenger disaster. He was the only Houston anchorman to report live from Berlin when the infamous wall was breached in 1989. For nearly ten years, he wrote and hosted a popular, Sunday morning public affairs program, on Channel 11, *Steve Smith's Sunday*. He made numerous trips to Europe and Asia, reporting on The Houston Symphony and Houston Grand Opera as they displayed Houston's outstanding performing arts groups to the world. He has also voiced audio tours for the Museum of Fine Arts, Houston.

Smith remains active in the community, contributing his time and talents to numerous charitable and arts groups in the Houston-Galveston area. He has recently joined the Board of the Strake Foundation. He was a ten-year member of the UH Honors College advisory board and still participates in its annual fundraiser, The Great Conversation. He also emcees events every year for the Galveston-Houston Archdiocese. He has served as the "voice" of Moody Gardens since his retirement. Smith and his wife, Vicki marked their 52<sup>nd</sup> wedding anniversary in early 2018. They are longtime members of St. Michael Catholic Church where he is a lay lector and served several terms on the Pastoral Advisory Council.

**HOUSTON VINTAGE RADIO ASSOCIATION  
2019 CONVENTION PRELIMINARY AGENDA**

**Friday, February 8, 2019:**

**8am – 8pm**     **Registration and Check-in (Lobby)**

**8am - 2:45pm:** **Auctions #1 & #2 Check-in (Salon C)**

**10am - 8pm:**     **Old Equipment Contest Check-in (Salon B)**

**8am - 3pm:**     **Swap Meet**

**11am - Noon:**     **Technical Session**

**Jeff Heller Presentation:** **The Founding of Radio Corporation of America (RCA)**



**3:30 PM: Auctions Begin (Salon D) \$5 Minimum Bid (No Junk Please)**

3:30pm: Auction #1 – paper, tubes, test equipment, misc.

6:30pm: Auction #2 – plastic & small radios, speakers, test equipment, misc.

5pm – 7pm: Cash Concession (including sandwiches, snacks, drinks)

**Saturday, February 9, 2019:**

8am – 3pm: Registration and Check-in (Lobby)

8am - 10am: Swap Meet

8am - 9:30am: Old Equipment Contest Check-in (Salon B)

9:30am: Contest Judging Begins (Contest Room Closed)

8am - 10:45am: Auction #3 Check-in (Salon C)

11am-1pm: Cash Concession Lunch (Lobby)

**11am: Auction Begins (Salon D) \$20 Minimum (No Junk Please)**

11am - 5pm: Annual Meeting and Auction #3 Including wood, bakelite and Catalan radios, console radios and phonograph equipment, rare and expensive items with minimum bids greater than \$20.

6:30pm: Awards Banquet

Guest Speaker: Steve Smith, Retired News anchor from Houston's KHOU and KPRC TV stations (Channels 2 and 11).

**CONVENTION REGISTRATION and AUCTION RULES:**

1. All Auction Sellers and Bidders must be active HVRA members (\$20, per family).
2. All Sellers and Bidders (Buyers) must register and receive a registration number.

HVRA Members: Registration = \$15 before 1/27/2019 or \$20 on-site (Only one registration per family or bidder required). HVRA Commission = 15%

Estate Sales: as per pre-auction negotiated terms

3. Sellers and Buyers settlements at conclusion of each day's auction activities (check-out will be in numerical order).
4. Bidder (Seller) numbers will be confirmed upon check-in or earlier as requested.
5. All sold and passed lots must be removed from the pick-up room (Salons E & F) after the conclusion of each day's auction session. Unless prior arrangements are made, HVRA and the Marriott are not responsible for items not removed from the Convention area by 11pm, Saturday. A temporary storage area for Saturday night guests is being discussed; all items in that storage area will need to be removed by 11am, Sunday.

**For questions, please contact Jerry Sirkin ([gsirkin@aol.com](mailto:gsirkin@aol.com)) 281-844-4124**

**HVRA 2019 ANNUAL CONVENTION REGISTRATION and MEMBERSHIP FORM**

*(For Questions Please Contact Jerry Sirkin at 281-844-4124 or [gsirkin@aol.com](mailto:gsirkin@aol.com))*

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_ Ham Call: \_\_\_\_\_

E-mail: \_\_\_\_\_

**All Bidders and Sellers Must Register and Be Active HVRA Members**

Feb. 8 – 9, 2019 Houston Marriott North	NUMBER	AMOUNT
Advance Registration: ** \$15 (Postmarked by 1/27/2019)		\$
On-Site Registration: ** \$20		\$
**Annual Membership \$20: (2/1/2019 – 1/31/2020) New		\$
Renewal		\$
Awards Banquet Dinner: Sat. Feb. 9 @ 6:30pm	.....	.....
Chicken Dinner: \$30 per Adult		\$
Child Plate (12 and under): \$15.00		\$
Vegetarian Dinner – \$30.00 per Adult		\$
Vegetarian Dinner - \$15.00 per Child		\$
Swap Meet: 1st Table Free ; Additional Tables - \$10 each; Any member needing a table(s) must contact Jerry prior to Feb. 7th		\$
Grand Totals	.....	\$

- **\*\*Only One Registration Required Per Family (One Bidder Number)**
- **HVRA Commissions: Individual Sellers at 15%; Estates Sales Commissions Pending Pre-Convention Agreements**
- **Buyers and Sellers Settlements at Conclusion of Each Day’s Auction Activities (Numerical Order)**

Fri. evening & Sat. lunch cash concessions? Yes\_\_\_ Number: \_\_\_\_\_ No: \_\_\_\_\_ Unsure: \_\_\_

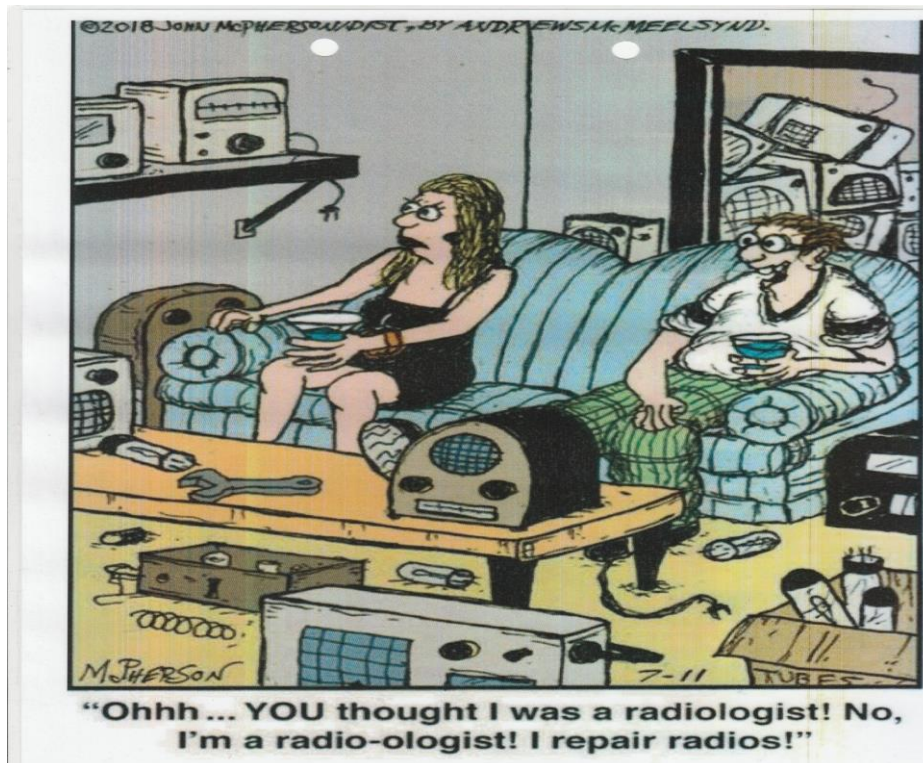
**ADVANCE REGISTRATION: CHECKS, PAYABLE TO HOUSTON VINTAGE RADIO ASSOCIATION (HVRA) or CASH MUST BE POSTED BY JANUARY 27, 2019 to: Jerry Sirkin 17614 Fairway Oaks Drive Spring, Texas 77379. ON-SITE: AFTER JAN 27, 2019, BRING REGISTRATION FORM AND CHECK/CASH TO CONVENTION. Thank you.**

**HVRA USE ONLY:**

**DATE RECEIVED:** \_\_\_\_\_ **CHECK NUMBER:** \_\_\_\_\_ **CASH:** \_\_\_\_\_

**REGISTRATION (BIDDER) NUMBER:** \_\_\_\_\_

## On The Lighter Side of Radio



Submitted by Chris Macha



Our 2019 Convention Theme: RCA. Please bring your RCA items to display as we commemorate the 100<sup>th</sup> anniversary of RCA. Shown above: A 1946 RCA 630-TS, one of the first consumer TV's produced after WWII. Left: RCA was a leader in bringing radio to the home, 1922.

## ***The Grid Leak***

*January/February/March 2019*

**Website – [www.hvra.org](http://www.hvra.org)**

**From The HVRA President**

**Upcoming Club events calendar and club news**

**Member Technical and Troubleshooting Articles**

**All of the Details of the Upcoming Convention are Included Inside**

**Ignore any expiration date shown on your mailing label! We have a new membership renewal policy.**