



The Grid Leak

April/May/June 2019

Did You Miss HVRA's 2019 Annual Convention?



Dave and Elaine Moore look over the exhibits in the Contest Room



Gilbert Hedge's 1924 Ozarka Portable—Best Restoration and Exhibitor's Choice winner



Bill Werzner displayed his 1937 Zenith 9-S-262 "Walton's" radio



Lance Borden displayed some Chinese military radios

From The President

Bill Werzner,
HVRA President

At the bench



Bill Werzner, President, HVRA. Spring has sprung here in the sunny south, and along with it the cool cloudy and often wet weather. Perhaps I should add smoky weather as I sit here at my computer pecking out the intro for our second quarter "Grid Leak". As most of you know, I have been involved with the historic one hundred and seven-year old Battleship Texas as a member of the First Texas Volunteers with Texas Parks and Wildlife since 2004, and before that as an unofficial volunteer along with fellow HVRA members. Together we embarked upon collecting and restoring pre-WW II era radio equipment for the ship. This included restoring the 1MC public address system and restoring six of the 1930's RBO audio units on line that were used to entertain the sailors with music and patched in radio connections below deck. Those units are wired in to play WW II era music and recorded radio programs setting a nostalgic atmosphere for visitors to enjoy as they tour the ship. On Sunday morning, March 17, I was in La Porte, TX next to the Houston ship channel, starting my first guided tour around 10:20 AM with a group of about twenty something visitors at the gangway. We looked toward the highway and noticed a small column of black smoke rising into the clouded sky from a nearby petrochemical tank farm less than a half mile away. Perhaps they lit a flare down there, or so we thought, but it was producing some extremely thick black smoke. When I returned to the main deck a little after 12 noon, the smoke cloud was huge and we heard the highway into San Jacinto Battleground and Park was closed due to a dangerous tank fire. As the large smoke cloud drifted over the nearby ship channel, people began heading for the only exit from the park, the Lynchburg Ferry, to get to Interstate 10. Shelter in place orders were being broadcast so the ship's staff and yours truly made a hasty exit for the ferry that would no doubt close if shelter in place were to be extended to include the park so close by. We joked about being trapped there like Santa Ana in April 1836. Today the fire is still raging and may continue for days to come, so planned electronic maintenance on board the ship and guided tours are on hold until further notice. This is another example as to why we need to maintain the ship's WW II era public address system!

Looking back, we enjoyed a great post-holiday party Jan. 12 at the Double Tree Hotel. This year the menu was the southern special, our all-time favorite. Then our trusty volunteers did their part entertaining everyone with music, fun, and a very nice donation auction. I want to convey my thanks to all who stepped forward to assist and to our members and guests who came out that Saturday night for an enjoyable evening together. One month later we celebrated our forty-first anniversary with a two-day auction and convention at the Marriott North Hotel that was a resounding success by all standards. With V.P. Jerry Sirkin in command, our loyal volunteers pitched in months in advance by printing and distributing brochures, web site updates, manifest photos, etc. From the opening moments to the closing bell we had excellent coverage from the front desk greeters, to the auction stage. The convention program presented by Jeff Heller was extremely well done and enjoyed by all. If you missed it, you missed a great one about RCA's history, and what an impact it had on our history. This year's contest was also one of the best and kudos to the judges and all involved. As auctioneer, what can I say, but my heartfelt thanks to all the handlers, computer operators, cashiers, and my good friend, VRPS President and Auctioneer Jim Sargent, who provided me with some badly needed breaks while auctioneering.

Looking ahead, spring and summer events are just over the horizon and you will probably want to make note of things happening in May. The Bayland facility will close for the Memorial Day weekend, so we have scheduled a regular General Meeting on Tuesday evening, May 14, from 6:00 to 8:30 PM. Then on Saturday, May 18, we will gather once again for Mike Payne's annual trunk and tail gate swap meet in Alvin, TX. Take a few weeks break and then it will be time for our July mega auction in Texas City. Fun times await us as we swing into the

sunny days of spring. Don't worry about missing dinner on May 14, we will have pizza available for dollar a slice at the meeting – yes, there will be a program and auction just like our Saturday meetings. **Bill Werzner**

HVRA Officers

President: Bill Werzner, 713-721-2242 werz1943@gmail.com

Vice President: Jerry Sirkin, 281-844-4124 gsirkin@aol.com

Treasurer: Richard T. Slater, 832-977-6111 ricslater1750@gmail.com

Secretary: Mike Monsour, AC0TX, 832-829-2227 msircg@gmail.com

Historian: Steven Pena, penas@stthom.edu

At Large # 1: Reid Shipp, WA5ARI, 281-943-9877

At Large # 2: Tom Taylor, 281-229-2970 ihcrally@yahoo.com

Grid Leak Editor: Jeff Heller, 281-702-6920 hellerj1@comcast.net

Webmaster: Steve Scheel, 281-687-5771 targeteye1@gmail.com

HVRA Event Schedule: April through July 2019

Check our web site 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.

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 See Program description below.

May 14 (Tuesday) 2019 SPECIAL: Combined [Monthly Board Meeting and General Meeting](#)
@ 6:30 pm - 8:30 pm Bayland Community Center, 6400 Bissonnet St Houston, TX *Pizza Served for a dollar a slice! There will be a program and auction.*

May 18 (Saturday) 2019 [Annual Alvin, TX trunk and tail gate swap meet at Mike Payne's place](#), 307 W. Dumble, Alvin, TX 77511. **Gates open at 8 AM.** *You can buy and sell at Mike's while socializing with HVRA members.*

June 11 (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!

June 22 (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 See program description below.

July 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!

July 13 (Saturday) 2019 [Tidelands Amateur Radio Society Annual Hamfest in Texas City—And HVRA Radio Auction](#), Doyle Convention Center, Texas City. The Hamfest has an entry fee (\$5.00 at the door) and gates open at 8:00 am. HVR's auction will start around Noon.

July 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 See program description below.

HVRA Meeting Programs April through July

Program chairman Reid Shipp has been busy planning meeting programs for the new year. Here is the upcoming schedule:

Saturday April 27 “Audio Amplifiers Using Transmitter Tubes” Here is your chance to put your knowledge into action and come up with a home brew amplifier. **ALL tube(s) used must be listed in the RCA Transmitter Tube or Eimac manuals only!** This includes tubes such as the 811A, 807, 1625, 6146 A or B, etc. Amplifiers using tubes not listed in those manuals will **be disqualified**.

Tuesday Evening, May 14 “The Evolution of Tubes From Large to Small 1920’s to 1970’s” Reid will be joined by one or two others explaining and showing how the large pin tubes morphed into metals, loktals, and miniatures prior to the advent of transistors and solid state.

Saturday Morning June 22, “Vintage Phonographs and How They Work” Steve Truch will demonstrate different vintage phonographs and how they reproduce sound mechanically. Steve is one of our members who specializes in vintage phonograph operation and sound reproduction.

Saturday Morning July 13, “Transformers, Their Design, How They Function, Modification, and repair” No matter what your involvement is in repairing or restoring electronic equipment, you will no doubt find this program well worth attending as transformers, especially in vintage equipment, are often a source of problems to be dealt with. This program may also include voltage multiplier circuitry as well.

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.

This May Be Your Last Copy of the Grid Leak!

The HVRA Board changed how we did renewals last year by having them due in February at every convention. This worked very well and we appreciate everyone understanding the change. We also must limit sending our Grid Leaks only to members who have currently paid their dues. Since we know everyone cannot make the convention and it is easy to forget without a reminder. Therefore, we are going to send this last Grid Leak to you as a reminder. There are about 38 folks that have not paid due by our last count. We want to give those who have not paid an opportunity to send in your dues to stay active in the club. You will receive no more notices requesting dues payment and this is your last Grid Leak. To send in your dues, just go to the HVRA website and download the membership renewal form. Fill it out and send it in (the instructions are on the form) with your dues payment. If you are not sure if you have paid, just send a note to the Treasurer, Ric Slater, at riclater17502019@gmail.com and he will check our records and get back to you.

Treasurer's Report by HVRA Treasurer Ric Slater

The treasury is staying healthy though it dropped a bit with our taking a \$2000 loss between the Holiday party and Convention. I expect it to improve a bit in July when we have the Texas City auction. We also cut our Grid Leak costs in half by not sending them to members who have not paid their dues. That is saving us about \$1200 a year. All in all, we are still in good shape with respect to the treasury. The general membership auctions have been doing surprisingly well. This is primarily due to our bringing a lot of items out of storage that the sales all go to the HVRA treasury. Here is a quick assessment of our last 3 general membership auctions.

| | January Meeting | February Meeting | March Meeting |
|------------------------|-----------------|------------------|---------------|
| Bidders | 17 | 11 | 14 |
| Total Sales | \$353 | \$154 | \$136 |
| Total to HVRA Treasury | \$148 | \$ 93 | \$ 94 |

Mark Your Calendars For Upcoming Special Events

HVRA member Tom Taylor and others are planning another Saturday seminar at EPO (Electronic Parts Outlet, 3753 Fondren Road, Houston, TX 77063). This seminar will probably be the first of several that will start with an introduction to vacuum tubes in electronics and continue on to include tube audio amplifiers. These seminars are open to the public just like the very successful one last year that was conducted by Lance Borden and Tom Taylor on "Green Radios" or "Radios That Work For Free". Watch our web site www.HVRA.org for details & dates. We plan for the first seminar to be held sometime later this spring.

Mike Payne's Annual Swap Meet May 18 in Alvin, TX

Mark your calendar for Saturday, May 18! HVRA member Mike Payne will once again open the gates to Electro Junk, Inc. in Alvin, TX for all to participate in the annual trunk and tail gate swap meet. If you have never participated in one of Mike's swap meets, you have been missing it BIG TIME! Mike's place is easy to find and the facilities are ideal for a swap meet of the magnitude that this should be. If you are a HAM, a collector, dumpster diver, restorer, or whatever you'll surely enjoy seeing Mike's fantastic collections of everything electronic imaginable. Gates will open for at 8 AM. To get there take Highway 288 South from the I-610 Loop in Houston. Turn left on to Texas Highway 6 and drive to Alvin. In Alvin, turn right on N. Gordon St. (which is also

Highway 35), cross the railroad tracks go several blocks, then turn right on Coombs St. At the second intersection turn left on Taylor St. and you are there at 803 S. Taylor.

Annual Texas City Mega Auction



We will return to the Doyle Convention Center in Texas City during the annual Tidelands Amateur Radio Society Hamfest event scheduled for Saturday, July 13, 2019. There is a separate \$5.00 admission fee to enter the Tidelands' vendors' area. Now is the time to begin rounding up those extra items from your garage and attic. We have lots of estate items to be auctioned off, some will be offered for sale from tables in the vendor area prior to the auction. Watch HVRA's web site for the auction manifest and updates. Doors open at 8 AM in the Tidelands' selling area and for viewing and registration for HVRA's auction that starts at 12 noon. Food and drinks will be available on site sponsored by TARS. If you have never attended this event, you will be in for a big surprise when you see the thousands of items for sale or to possibly trade.

HVRA Technical and Restoration Articles

The Trouble Shooter by Bill Werzner

WW II Battleship Texas Sound Reproducer Restoration

I began volunteering on the Battleship Texas around the year 2001. At that time there was a problem keeping the public address system operating and I was asked to assist in maintaining it and expanding it around the ship if it was possible. This was of course a safety issue as there had to be some system to make announcements ie. "The ship will close in thirty minutes," or more importantly "please evacuate the ship due to an emergency in the ship channel," which we hope never happens. On March 17, with a pending order to shelter in place due to the ITC fire close by, this was another example where a functioning public address system was important,

although as I recall, the ship and park pretty well cleared out when the highway was shut down and everyone left via the Lynchburg Ferry around noon.

A few years later we modified the existing 1MC system and played WW II era music via a computer and CD player. Not realizing that we were also blasting music and announcements from the large mast speakers over the park, we soon got the attention of the park staff. I remember one particular meeting on board when one of the park staff told us, "It is not appropriate to be blasting Boogie Woogie Bugle Boy of Company B" over an 1836 battleground." The announcements were OK, but the music had to stop. Well, the 1MC system was not really used for music we were told, but another system was used instead, called the RBO system. The question was,

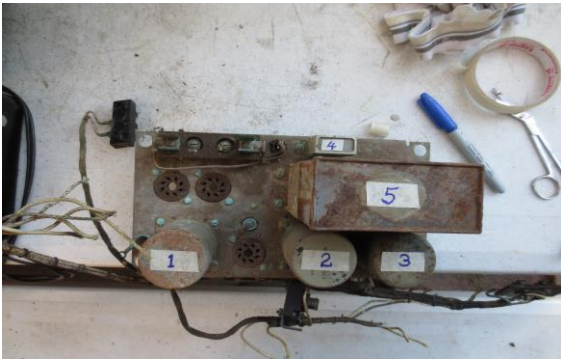


can we make this 80+ year old RCA system work again? I accepted the challenge and it was a challenge indeed!

RESTORED RBO ON SECOND DECK I removed the first of what was to become six units about six years ago and took the heavy enclosure to my home workshop to begin the task. See photo to the left of a restored box. In the photo, the black knob to the left controlled volume and the one to the right could switch in three channels. One channel I'm told was for announcements, another for records that were played in the main transmitter room on the third deck, and the third was used to patch in radio from a receiver. "Tokyo Rose anyone"? Did I really want to tackle this thing? Should I post the suicide hot line phone number on my workbench? I have taken on some challenges in my lifetime, but this one would really put me to

the test. Perhaps it was an adrenalin rush after successfully restoring that first one that led me to restore five more of them. Insanity, no I don't think so now that I look back!

The below photos show what this RBO looked like prior to restoration. Opening the hinged unit from the top revealed a ten pound plus (pre-Alnico) PM speaker, three empty octal tube sockets, two metal enclosed capacitors, empty fuse holder, two enclosed transformers, one enclosed choke coil, decomposed wiring along with much dirt and corrosion. I began to wonder if this thing had been dredged up from the Houston Ship Channel and placed back on the ship. From a deteriorated paper schematic pasted to the back of the enclosure was a schematic. Tube wise this unit required a 35Z5 rectifier and two 35L6 output tubes wired in push pull. I stripped out the deteriorated wiring and with the help of WD 40 unbolted the components from the chassis. All components including the ten pound pre alnico PM speaker, dual volume control, dial lamp mounting, three function band switch, etc. were removed from the front panel along with "RCA" button.

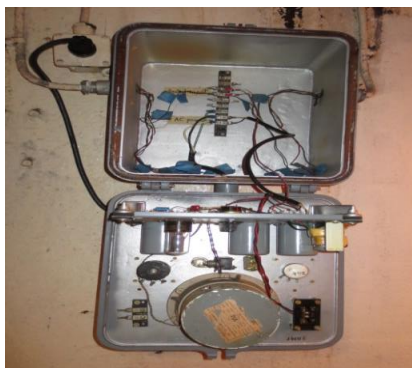


RBO CHASSIS REMOVED FROM HOUSING



RBO OPENED SHOWING INSIDE FRONT

The components were stripped from the housing and chassis, cleaned and repainted. Surprisingly, the transformers and choke coil tested good along with the speaker. The stripped-down housing and chassis were returned to the ship for bead blasting and repainting. I will save the rebuild article for the next "GL" as part II to show a new circuit and how this unit was restored and put back in service. Now six RBO units are restored; one in the ward room, three on the second deck including the sick bay, and two down on the third deck. The next time you come for a visit enjoy the big bands, news from 1944, and remember Bill who took the challenge, made them play, and somehow kept his sanity.



Interior of RBO with front panel opened down following rebuild. One 6V6 GT and new power transformer has been installed. The dial lamp holder now houses a clear LED to illuminate the red jewel on front panel. Volume control and power switch is mounted on inside chassis.

Redheads and Torroids -Or, How to Have a Better Marriage Without Changing Wives

By Ray Cathode

Being a HVRA member, one can assume I like radio. My wife (we'll call her the terrorist) likes television. She'll turn on the tube before turning on a light. It's often just electronic wallpaper. The mind-numbing banality allows me to withstand about 30 minutes. A month. I've had to put my foot down on very few occasions. For starters there will never, ever be a lobotomy box in the bedroom. I will not allow that blaring, glaring device into one of the few quiet refuges in the house. You could see how things could find their way into family law court if I relented. She's my best friend in the world and I like it that way. She loves her DVR: If you have to pay to watch you should not endure commercials. Paying to watch is a real thorn in my side, its not worth my time to watch it when its free! The world's shortest admonition is "Happy Wife, Happy Life". With redheads its "Happy wife, long life". Did I mention she's a sweet kid and my best friend in the world?

But the cost of cable always exceeded the electric bill, even in the summer. I find electricity a wonderful, useful commodity. Not so for the electronic version of bread and circuses. My grouching about the cost of lowering one's IQ finally resonated, Cute wife made it her mission to get a better deal from the multiple vendors available to us. She cut a much-improved deal with AT&T... As a side benefit we got much faster internet to boot...all for about \$85 a month less...that's gas + water in my Scot way of seeing the world.

But here comes the rub. Trying to listen to the Astros on radio I noticed approximate white noise across the broadcast band... It all but drowned out the weaker stations. It gets worse. The noise blanketed 160, 80, 40, 20, and 10 meters. She just loved the new cable; I'm not getting that genie back in the bottle. Marriage license trumps Extra-class license. I found a comfortable spot behind that 8 ball and pondered. I noticed that in trying to re-orient the Detrola, the noise seemed to be coming from the bedside phone. A little research revealed Uverse used 2 phone pairs to send a 20kc-30mc signal a la ethernet to cable box, modem, etc. I still had a POTS (plain old telephone service) line to the house. I sat and pondered. Two conclusions; 1. AT&T is out of their gourd. Further research reveals the ARRL is complaining long and loud to the FCC about using phone pairs where cat5 or shielded cable is appropriate. 2. The POTS wiring was efficiently radiating this throughout the house.

Apparently, an unintended consequence of impressing RF on wires in free space. Fortunately, my service is all underground, *terra firma* providing some shielding, had I had aerial drop wires I'd be screwed royally. Apparently significant rf was being coupled to the POTS line in the buried 512 pair cable behind the house. Disconnecting and grounding the POTS wire into the house killed the noise. I lurched for the junk box. I tried a clamp on ferrite, some improvement.

I tried a .047 uf to ground on each side of the incoming pots line, more improvement. I added 2 random, but identical torroids from a junked power supply... Peace and quiet. Components are not critical, probably any cap between .01 and .1 will work fine, the important thing is to keep the filtering symmetrical on both side of the line otherwise the line will hum. Ma Bell keeps things quiet by keeping the loop in balance; perfectly out of phase noise kills itself off. Also, a short low impedance path to ground really helps as does putting any filtering right at the demarcation point (usually a good ground there anyway). A side benefit is this arrangement keeps my RF out of the phone line, I don't expect a single one of my neighbors to understand that the cable is a

secondary user of the HF ham bands. Bluntly that means I can interfere with them but they cannot interfere with me. All they would know is their screen went black and I caused it. I choose to avoid the hassle of either.

The good news is friend wife can remain kinescope-dependent.

Three Radio Quiz Questions By Tom Taylor

See if you can get the correct answers. You can find the answers with the essential information provided below in the Solder Bits section of the Grid Leak.

1. **The dead Philco.** A five tube plastic radio shows up with NO sound in the speaker when the volume control is all the way up. All the tubes were lit and there was B+ in the circuit. It used a field coil speaker and one pin on the audio output tube had high voltage on it.
2. **A Breting with low gain.** This rare 14 tube ham band radio is FULLY restored and then aligned to find as others before me that it seemed to still lack overall gain. Literature and on line case histories of this radio were virtually nonexistent due to its rarity while an original manual/schematic that came with the radio was marked up showing circuit and component changes found in the radio that all made sense. The control grid voltage serving two front end tubes was around -9 to -11 volts for strong AM signals.
3. **A Philco cathedral that can't hear.** This model 60 does not pick up any stations although it has been fully restored with needed components. It has the customary hiss in the speaker with the volume all up and a noise response is found on tube grid caps back to the mixer. There is no RF amp tube and the noise does not change at all when the radio is tuned. A look at voltages on the 6A7 tube shows B+ on the plate but not on the screen which is served by a coil winding. All tubes check good and light up.

CQ CQ CQ MacGyver By Tom Taylor

Have you ever wanted to be MacGyver, you know TV tech guy MacGyver, the one that pulls off these miracles just in time using available technology found within arms' reach? Well, two of your well-known members (names withheld to protect the guilty) had their chance in the recent past and you might say, fell on their face. On a three-hour field trip to a Hamfest, all was splendid including the just-in-time rest stop at Buc-ee's where a men's room, drink and food were readily available. A hamfest for those that haven't been is an unchaperoned event where things you shouldn't do with regularity are performed with the precision of your youth. With unchecked excitement we left our rest stop behind and proceeded directly to the event without regard to hotel check in. Time was then consumed gathering up radio toys and seeing old friends until the crowd thinned out and we realized it was also time to feed the machines. At about that time we also figured it best to check into the room where we discovered a CPAP machine had made the trip but part two of two, the power supply, had not. Not in luggage, not in the truck, not on the trip. Absolutely no challenge at all for a pair of seasoned problem solvers, right? Our time had arrived. Time to demonstrate all our survival skills and later

gloat about it. Knowing that the presence of 12 volts DC could be attained many ways we simply settled in on a battery charger from the closest place, an auto parts store. Who would have thought that the charger we so proudly carried to the room was high-tech with an obstinate feature of withholding its basic task UNTIL it sensed you had a genuine weak battery to work with. Out with the tools, off with the cover and the offending circuitry was rendered helpless. After a short discussion the wire cutters were judicially applied to suspect areas so that OUR \$39 worth of 12 volts could be made available without restraint. Who in their right mind would include such an interlock when you can hold leads of the powered assembly in your hands AND you can't find enough iron and copper in that thing to prevent holding the entire package at arms' length for more than 20 seconds? Well despite all manner of splicing, cutting and complaining our heroes finally arrived at the point this now filleted and savaged assembly was placed near the surviving box and we settled in for a night of chance and catch what you can rest.

For Sale One 12 volt virtually new battery charger, extra wire and screws included.

FYI CPAP is AKA Continuous Positive Air Pressure

Solder Bits (short articles and repair notes—contributions welcome!)

Magazine Recommendations: *Electric Radio*

Following up on our last issue where we listed some useful radio repair books, we wanted to mention one of the most useful monthly magazines that regularly offers articles on vintage radio communication equipment that our members will find educational. For \$36 a year, *Electric Radio* magazine of approximately 60 pages takes a close look at circuitry improvements, offers explanations for outboard accessories and presents equipment reviews most of which is beneficial to our understanding of household radios. Pulling from Publisher Ray Osterwald's opening statement, "It is dedicated to the generations of radio amateurs, experimenters, and engineers who have preceded us, without whom many features of life, now taken for granted, would not be possible." Tom Taylor and your editor subscribe to ER and likely others in HVRA do as well. I read it the same day I get it! If interested send your check to:

Electric Radio PO Box 242 Bailey, Colorado 80421-0242 Phone 720-924-0171

<https://www.ermag.com/> Or use the website to see past issues and subscribe.

Radio Quiz Answers

1. With absolutely NO sound, conditions indicate issues at the output tube, audio transformer or speaker with or without a field coil or hum reduction coil. An open connection in either of the latter two will prevent ALL audio but there is a clue provided here regarding voltages on the output tube. Essentially all audio output tubes will be pentodes if not tetrodes where both the screen AND the plate will have close to the same B+ voltage. Since the plate voltage is most frequently provided by screen voltage via the primary on an audio output transformer we look first to that current path, the transformer winding. If instead there is no screen

voltage on an audio output tube there is most likely no plate voltage. In this case the transformer was open and a replacement transformer gave us noise that allowed progression back into the circuit towards the antenna.

2. The glaring clue is the very negative control grids which will reduce the gain of tubes like “remote cutoff” tubes served by Automatic Gain control (AGC). Not all tubes in the RF or IF sections need to be throttled for this task. Since this AGC is derived from the (second) detector, we look and find levels around diode plates of that tube as low as – 45.0 volts on strong AM stations and a 2 meg resistor serving that path to control grids of the two remote cutoff tubes. It appears this low-production radio needed a little more attention in the AGC area based on these values, the lack of history and the marked up original schematic. Our assumption is confirmed when the excess negative voltage is divided such that a much lesser voltage like -4.0 volts now appears on those control grids for strong AM stations thereby bringing the audio up smartly. This voltage then moves as it should towards about -0.6 volts for weak AM, dismissing further concern. As an aside, the BFO coupled to this same area is also providing lower than needed injection and it is wired per the schematic with replacement matching component values. A recent article on an outboard product detector found in the February 2019 edition of *Electric Radio* magazine entitled “A Product Detector For A Homebrew Receiver” states that other radios have this compromised design implementation.

3. First, the fact that the noise level does not change at all when we tune tells us the oscillator is probably dead. Since the availability of mixer screen voltage requires a good coil AND that coil is coupled to another coil, we suspect the first coil is part of the oscillator action inside the mixer. Measurements around the coil lead to only one pin with plenty of B+. With power off we then find no continuity between that B+ pin and the coil pin going to the screen. On close examination inside the coil form we see that those two pins do indeed serve one coil. Carefully probing through enameled wire at each end of the coil we find the open is very near one end. A careful unsoldering of the fine wire and removal of about 1 ½ turn yields a break in the wire. With magnifier and a dental pick the loose end of wire at the break is lifted and re-soldered in the most convenient way to its assigned pin to restore radio operation. You find yourself going down this road successfully by reminding yourself at each step “nothing ventured, nothing gained” and knowing that at any move you become the triumphant with your own stories to tell. Not a bad feeling when the next radio challenge comes along to have under your belt the knowledge that problems can run but they can’t hide for too long.

HVRA Survey Results By Stephen Scheel

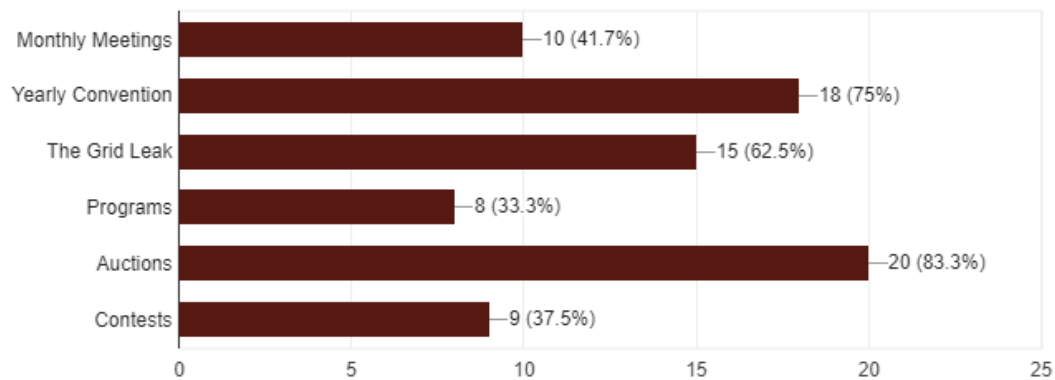
In early 2018 HVRA performed a survey about what its membership was interested in. This survey was both online and at the 2018 convention. Thank all of you that took the time to fill out a survey. The purpose of this survey was to consider what we as a club are doing well and where do we need to improve. Here are the results.

Events and Services

Based on the Data received lets first consider what type of events we hold.

What do you like the most about HVRA. Please choose all that apply.

24 responses



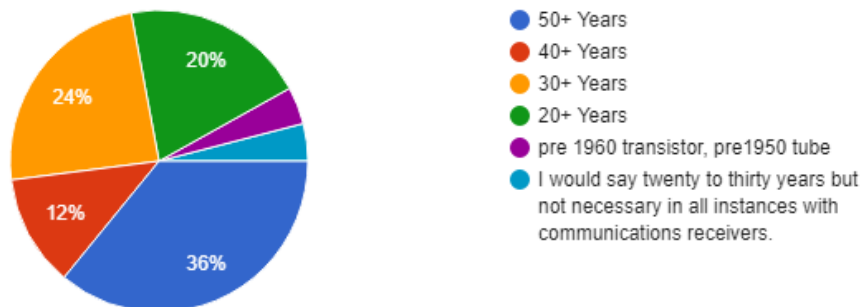
Above you can see that auctions are the number one event. We hold an auction about 10 months out of the year including two large auctions. This is closely followed by the convention, which really incorporates all the above. We also continue to publish the Grid Leak on a quarterly basis. The Grid Leak and Conventions are particularly time consuming for Jeff Heller and Jerry Sirkin so when you see these gents please thank them for their efforts. The data here however does show that we should try an ad one more major auction to the calendar. During meetings I personally have heard that people do miss having 2 mega auctions per year. This is something the board is looking into achieve. Locating a proper venue, we can afford, is not easy so if any of the membership has ideas on this please contact one of the board members. The Summary here is that no major changes are warranted in this topic.

What is “Vintage” anyway?

This is a nebulous adjective. Webster's 2nd definition is most appropriate here. “of old, recognized, and enduring interest, importance, or quality”. There is no definitive time boundry and we as a club have varied opinions as well. Over half the respondants believe 30 year or older is “vintage” wich means topic/items prior to 1990! I think we have some work to do to recognize that interests of the club membership goes way beyond the vacuum tube era.

How old does equipment need to be for you to consider it "vintage" and interesting

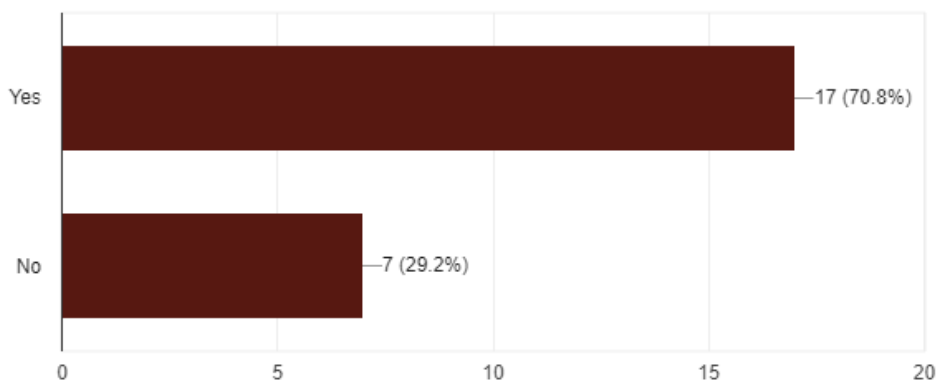
25 responses



Is it all about Radios?

In regards to your interest in Vintage electronics, is Vintage Radio your main interest?

24 responses

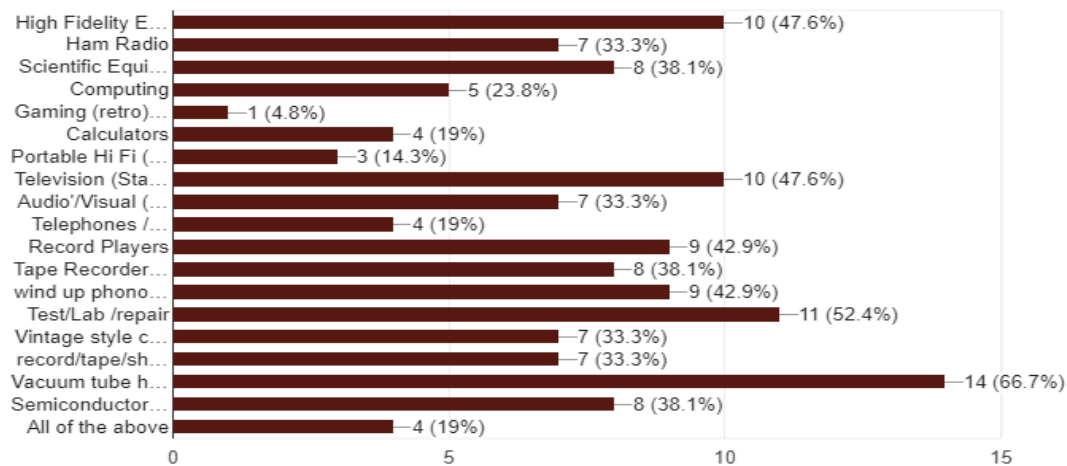


A silly question considering we are the "Houston Vintage **RADIO** Association" However, 1/3 of our respondents do not even consider radios their main area of interest. When this club was founded in 1978 the clear majority of "vintage" electronics would have been Radio and very early radios at that. However today folks have other interests and I believe most of us have interest in vintage electronics other than just radio. The supporting data also shows that for the newest members, over 1/2 of them do not consider Radios as their main interest. Is it time consider changing the name to the "Houston Vintage Radio and Electronics Association"?

In the blow graph you can see that this is substantiated by the broad level of interest in other topics.

Would you like to see HVRA to expand its scope of or include any of the following areas of Vintage electronics, Select all that interest you

21 responses



Conclusions

I think the data shows that interests in the Vintage Electronics collecting, and restoration hobby is changing and in order to attract new members to the club our subject matter should evolve. You have seen the club take some steps in that direction by adding in new categories to the contests and programs and not limiting our auction events to old Radios and Vacuum tube era items exclusively. We do however need to take steps to promote ourselves as a club that is not just about old Radios. It may be a hidden secret that you can find all kinds of vintage electronic items and topics at our events. If you have any thoughts, you would like to feedback to myself or the rest of the board just drop a note to info@hvra.org.

HVRA 2019 Annual Convention Wrap-Up

By Jerry Sirkin HVRA Vice President and Convention Chairman

281-844-4124 (gsirkin@aol.com)

The Friday and Saturday attendees at our 2019 Annual Convention enjoyed two days of auctions, a superb tech talk by Jeff Heller, a very competitive Old Equipment Contest co-chaired by Tom Taylor and Jeff Heller and an Awards Banquet led by President Bill Werzner featuring guest speaker Steve Smith.

BY THE NUMBERS: Compared to 2018, the auctions at this Convention featured fewer estates, fewer lots and, consequently, a \$1300 net loss compared to the 2018 net \$3500 profit. During the two days of auctions, Reid Shipp and his auction handlers moved 550 lots across the auction table where Bill Werzner and Jim Sargent took turns to announce, describe and successfully sell 450 lots. We had 29 (same as 2018) warm bodied sellers on Friday and 43 (50 in 2018) buyers...17 members bought and sold (20 in 2018). Saturday saw 44 (26 in 2018)

warm bodied sellers and 52 (50 in 2018) buyers; 30 (14 in 2018) members bought and sold. Total registrants in attendance were 93 (85 in 2018). The 2019 total auction sales grossed only \$11,035 compared to \$25,300 in 2018 and HVRA's net sales were \$3,500 compared to \$7,035 in 2018. The big differences in Profit /Loss between the 2 years included approx. \$700 in additional expenses and the lack of higher valued lots seen in the estates during the 2018 auctions.

A big thanks to all of the HVRA Board Members and member volunteers for their help during the Convention. Bill Werzner and his loading crew provided transportation for the estate items. Reid Shipp and his merry men of auction handlers kept the auction table full while Bill Werzner and Jim Sargent took turns setting the auction pace. Among the members volunteering their time were Mike Slovan, Konrad Werzner, David Herlinger, Stephen Truch, Jimmy Stewart, Erik Stehl, John Given, Steve Scheel, and the others who assisted during the auction. Cecil and Fran Miles shared time helping Jeff Heller oversee the Contest room. Our historian Stephen Pena captured the event with many photos of all the activities and contest results throughout the two days. I hope you have time to look at the photos presented on the HVRA website. Each year this Convention is overseen by a group of volunteers welcoming registrants and assisting in the financial responsibilities; thanks to Gail Sirkin, Cindy Scheel and Lois Janssen for their help at the registration table. Treasurer Ric Slater along with Steve Scheel took turns recording the auction bids and with the assistance of Vera and Lynn Palmer, a backup list was maintained to assist with any recording problems. I apologize to any volunteers not mentioned above and I thank you for your help.

Among the top 15 auctioned items were: a 1903 Edison Gem cylinder player (\$800); Zenith shutter dial (\$170); Zenith radio (\$190); AK 60 highboy console (\$120); AK Cathedral (\$150); AK 30 (\$110); Sansui receiver and turntable (\$150); Kenwood TS S20 (\$140); Philco console (\$170); Two MacIntosh computers (\$300 and \$240); Magnavox console record player and radio (\$100); Box of SWR coils (\$150); tube tester (\$100) and a Candlestick phone (\$100). Thanks again to all attendees, sellers, bidders and helper. See you February, 2020.

2019 HVRA Annual Convention Contest Results

The 2019 Convention Contest was a great success thanks to so many fine contest entries. Well over 50 separate displays and entries were made in the contest. In addition to awarding our usual first and second place ribbons for each of 19 categories, we also made some special awards as noted below. Thanks again to all contestants for making the contest a great display of vintage radios. Listed below are the first-place winners as well as special award winners:

1. Wireless/Spark Equipment: **Tom Burgess, SCR74A WWI Spark Gap Transmitter**
2. Crystal Receivers and Related Crystal Equipment: **Lynn Palmer, Wolf Cub Crystal Radio Display**
3. 1920's Battery Receivers: **Gilbert Hedge, 1924 Ozarka Portable Radio**
4. Cathedrals, Tombstones & Consoles (wood): **Jeff Heller, Midget Cathedral Radios**
5. Table Receivers, Tube (wood): **Bob and Kathy Botto, Pye Model MM1931 TRF Radio**
6. Table Receivers, Tube (non-wood): **Jeff Heller, Emerson Patriot/Philco Boomerang Radios**

7. Transistor or other Portable Radios: **Lance Borden, 1951 Zenith H500 Trans-Oceanic**
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: **Steve Scheel, JRC NRD 525 Communications Receiver**
9. Phonographs, Speakers, Reproducers & Microphones: **John Schmitt, Philmore Jr. Microphone**
10. Miscellaneous Vintage Electrical Equipment (Examples include Telephones, Telegraph, Scientific Test Equipment, Electrical Devices and Television): **Dave Herlinger, "Danger High Voltage" Display**
11. Kit Radios and Electronics: **Lance Borden, 1955 Allied Knight Kit 6-in-1 Radio Lab**
12. Hi-Fidelity Equipment: **Mike Slovan, Homebrew Amplifier**
13. Amateur Radio Equipment and Accessories (At Least 40 years Old): **Steve Scheel, TNT CW Transmitter**
14. Military Electrical and Electronic Equipment: **Tom Burgess, CIA RS-6 HF Transceiver**
15. Replicas & Vintage Style Creations: **Ed Mustoe, Homebuilt Transistor "Retrodyne"**
16. Ugly Radios: **John Given, 1958 GE Wonder Kitchen Radio**
17. Foreign Radios: **Lance Borden, 1970's Chinese HF Receiver Type 222-1**
18. Special Convention Theme: The Founding of Radio Corporation of America: **Dave Moore, Radiola 1**
19. Components, including Vacuum Tubes: **Tom Burgess, VT 158 Radar Transmitter Tube**
20. Open Display: **Mike Grimes, Zenith 6 volt AM Auto Radio**

Best Restoration: **Gilbert Hedge, Ozarka Portable Radio**

Best Vintage Equipment: **Mike Grimes, Radiola RS Two Tube Regen Radio**

Best Artifacts and Collections: **Dave Herlinger, "Danger High Voltage" Display**

Best New Contestant: **Ed Mustoe**

Exhibitor's Choice: **Gilbert Hedge, Ozarka Portable Radio**

Best of Show 1st Place: **Dave Herlinger, "Danger High Voltage"**

Best of Show 2nd Place: **Lynn Palmer, Wolf Cub Crystal Radio Display**

More Radio Clubs

Oklahoma Vintage Radio Collectors President: Jim Collings, PO Box 50625, Midwest City, OK
jcradio@cox.net \$15 annual dues. Monthly meetings, annual show.

Antique Radio Club of Illinois, www.clubinfo@vintage-radios.org

Collins Radio Association (CRA). David Knepper, PO Box 34, Sidman, PA 15955. No dues. www.collinsra.com

Louisiana & Gulf Coast Antique Radio Club. Phil Boydston, 750 Moore St., Baton Rouge, LA 70806.

Michigan Antique Radio Club (MARC). Don Colbert, MARC, membership@michiganantiqueradio.org. Pub: The Michigan Antique Radio Chronicle, quarterly. Dues: \$20. Annual Extravaganza and other quarterly meets. www.michiganantiqueradio.org.

New Mexico Radio Collectors Club (NMRCC). Monthly newsletter and members meeting (with flea market, auction and theme program). Dues: \$20. For more information contact John Anthes, jpanthes@comcast.net Club website: <http://newmexicoradiocollectorsclub.com>

Texas Antique Radio Club, Doug Wright, Canyon Lake, TX, wrightdouglas70@yahoo.com

Vintage Radio and Phonograph Society (VRPS), Dallas / Ft. Worth, TX George Potter, vrps@sbcglobal.net, www.vrps.org

Texas Panhandle Vintage Radio Society (TPVRS). Contact: Elroy A. Heras, 4086 Business Park Dr., Amarillo, TX 79110

Antique Radio Collectors Club of Ft. Smith, Arkansas (ARCC). Paul Tucker, 4700 N. "N" St., Fort Smith, AR 72904. Dues: \$10. Monthly meetings, annual show.

Local Sources for Radio and Electronic Parts

EPO (Electronic Parts Outlet), 3753 Fondren Rd., Houston 77063 (713) 784-0140 www.epohouston.com

ACE Electronics, 3210 Antoine Dr., Houston 77092 (713) 688-8114 www.ace4parts.com

Buy, Sell, Trade, & Services Offered

Vintage Sounds Radio & Phonograph Sales & Repair including vintage auto radios, battery sets, foreign sets, etc. We also sell and service vintage telephones and telegraph equipment also parts, new & used tubes, transformers, schematics, books, phonograph parts & needles, records, etc. **Vintage Sounds** celebrating our 33rd year in business. Open Friday, Saturday, & Sunday from 10 until 6 PM. Now located in The Market Place Antiques, 10910 Old Katy Road, in Houston (Located about two blocks west of the Athena Gun Club on the westbound I-10 feeder road). 10% member discount on radio items. (713) 468-4911 www.vintagesounds.com

Borden Radio Company website:<http://www.xtalman.com> Antique Radio Schematic Service included in website. Crystal radio kits for sale. (281) 620 – 6692

Sargent Auction Service: www.sargentauction.com, Jims@sargentauction.com Jim Sargent, WA5QBR, Auctioneer, TX license 16135 | 200 Thomas Road, Granbury TX 76049

Allen Speaker Service, Speaker re-coning and repair, 919 W. 19th St. Houston, (713) 862-2747.

Tom Granger Restorations, radio and phono cabinets. (281) 338 - 8277. wwwtomgranger@mac.com

Escutcheons For Sale Tom Taylor has an extensive collection of escutcheons for sale. Nearly a dozen each Philco and Zenith PLUS Air King, Airline, Columbia, Courier, Glorytone, Majestic, Pacific, RCA, Silvertone, Stewart Warner, Traveler, Westinghouse etc, several with the glass. Tom Taylor IHCRally@Yahoo.com

Other Radio Related Activities

Texas Broadcast Museum: www.txmbc.org This museum is located at 416 E. Main Street in Kilgore, TX, phone 903-984-8115. There are hundreds of pieces of vintage paraphernalia related to radio and TV broadcasting. Admission is \$6.00 (\$5.00 for seniors and military vets).

Edington Family Museum of Atwater-Kent Radios: Jimmy Edington, long-time collector and HVRA member, has re-purposed a beautifully restored hotel to display his outstanding collection of Atwater-Kent radios and related products. It is located in Silsbee, TX, about 80 miles east of Houston. See his website, www.atwaterkentsrus.com If you would like to visit, please contact Jimmy in advance, 337-476-4328 or atwaterkentsrus@gmail.com



Former Houston TV news anchor Steve Smith gave an interesting talk about the inside of a TV news room at the Annual Convention Awards Banquet.



Mike Grimes' unique display of a Zenith Car Radio mounted on the steering column, circa 1930's.



Jeff Heller displayed four mini-Cathedrals including Jackson Bell Peter Pan and Golden Bear models, a Stewart Warner 1234, and a General Radio & Television Jewel model.



Lance Borden won first place in the Kit category with this 1955 Knight Kit 6-in-1 Electronics Laboratory. Lance is still playing around with similar kits all these years later.

The Grid Leak

April/May/June 2019

Website – www.hvra.org

From The HVRA President

Upcoming Club events calendar and club news

Member Technical and Troubleshooting Articles

Results of an HVRA Survey

Ray Cathode makes his literary debt!

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