



SOUND WAVES

Published quarterly by The Vintage Radio & Phonograph Society, Inc. www.vrps.org

VRPS Summer 2021

From the President



The last time I sat at my computer to write this column, I started out saying that Spring had finally arrived...I really need to be less enthusiastic about the fleeting of days and weeks and months...they go by soooooo fast.

Now that I have my emotions in check --summer is officially here. What a difference a few months makes! Texas is now open for business...as are a lot, but not all the country. Needless to say, I am excited to be able to announce in our publication (our website has proclaimed the good news for a few weeks now) that the VRPS is back!!! Not that we ever left, but surely, while technology is a good thing, face to face meetings and events are a much better thing. The city of Irving has finally opened

their doors to allow groups to gather, and we could not be happier.

That being said, beginning this month (July) we will start to follow a somewhat "normal" schedule of events for the remainder of 2021. Should you still have lingering questions, let me assure you that we will have our annual convention in November. Yes, we are back at the Comfort Inn and Suites in Plano celebrating, not only the end of a very long and challenging pandemic year, but also our 47th anniversary. More information concerning the convention and upcoming meeting events can be found elsewhere in this issue.

Now as I prepare to close, I find it my duty to inform you of the passing of some stalwart members of the VRPS. As we were going to press in April, I made mention that I had just received word that longtime member Royce Sweet had passed away in Savoy, Texas, following a lengthy illness. Many of us learned the art of aligning a radio from Royce. Also, I failed to mention in that issue that in January of this year we lost another long-time member, Fielding Grigsby in Ardmore, Oklahoma. It did not take most of us long to realize that behind those bib overall jeans, corny jokes, and quirky country boy smile, was a really smart man who, like Royce, made a good living for his family through radio repair.

Finally, just over a month ago, in May, we lost another long-time member, Ken Bratz, in Palestine, Texas. Active until the end, Ken owned a consulting firm. He had a passion for test equipment, especially anything Tektronix related. We offer our condolences to their wives, Joyce (Fielding), Julia (Royce) and Patsy (Ken). Thanks for sharing your husbands with us.

See you at a meeting soon.

--Jim

Notes from the March 20, 2021 Meeting

The video of this ZOOM club meeting is posted on our club website under "events". Club president Jim Sargent opened the meeting, which was a show-and-tell featuring members' "favorite radios (or phonographs)"

First-up was Mike Grimes. He showed a home-brew one-tube breadboard radio like the "Mite-Size Radio" that he built as a young man - from an article in Radio-TV Experimenter magazine.

Next-up, Walt Zaleski gave a slide-show presentation featuring two radios. First, he showed his 1937 Zenith model 7-S-232, "Walton" radio. Next, Walt showed his 1936 Silvertone model 4465 AM/SW. He likes radios with big, fancy dials, and the 4465 fits that bill.

Dave Seymour showed his Diamond-T Super Special (Old) 3-dialer and discussed its interesting features and some history related to it.

George Potter showed his Victor "E", AKA Monarch Junior, phonograph, that he said is the earliest thing in his collection. It has a Victor Exhibition-model reproducer and a double-spring motor.

Bob Lutz featured his Midwest radios. He said that, over time, he bought a lot of radios, including Zeniths, but his favorites are models with art-deco style and high-tube-counts.

Author's Notes: I think we all enjoy seeing nice radios in the old movies, many times just for props, or with lighted dials and not playing. As a clock collector, I cringe when I see, in TV or movie scenes, clock pendulums hanging completely still 99.99% of the time.

An adjustable air-gap provides a useful advantage for a horn speaker (or headphone, for that matter). For a weak signal, you can reduce the air gap to produce more volume, up to the point where the diaphragm buzzes against the pole-piece. Of course stronger signals may cause buzzing, unless the volume is reduced by decreasing filament current – which incidentally saves battery life

Bill McKeown

Notes from the April 17, 2021 Meeting

The meeting covered three topics. First, Larry Lindsey introduced Joel Jennings, who showed us how he can make a number of reproductions of things that would normally demand a lot of time and effort. He has a couple of numerically controlled (NC) machines that have become available fairly recently – one is an NC router and the other is an NC laser. The laser has enough power to cut through ½ inch wood or significant thicknesses of other materials. Larry and Joel showed many examples of object that can be created: For the router, grillwork, inlays, decorative trims, and cutouts. For the laser, engraving, etching, raised lettering and grillwork

that has sharp internal corners. Joel's services are available to collectors and restorers. Larry Lindsey can help you contact Joel.

Dave Seymour showed his Clapp-Eastham Radak H-Z. It can be used in conjunction with the Radak R-4 as either an amplifier or a detector. He detailed his restoration process, which included creating schematic diagrams which he showed while describing the functions for each mode of operation.

Eric Kirst showed some surprising early examples of television history and technology. He showed publications that illustrate a lot of activity occurring in the late '20's and early '30's.

Bill McKeown

Notes from the May 15, 2021 Meeting

Ron Carroll gave a presentation about 3-D printing. He has a pretty elaborate set of equipment that can make parts using digital control. He described the process for making a replica radio knob. The first step is to create a data file for the printer to use in making the part. This is done using a Computer-Aided-Design (CAD) program. He showed the steps involved in creating a file defining the knob, starting with a 3-D photogrammetry setup using a camera focused on the part to be replicated. Walt Zaleski asked for an estimate of cost per knob, assuming that the design work is done and ready for the data to be fed into the printer. Ron speculated that it would be about 5 dollars each part. Jim asked Ron about his availability to make items for us. He said he is open to looking at our requirements, if we contact him and send pictures or samples for him to provide an estimate.

Dave Seymour showed us an Excel spreadsheet that he developed to help determine component values needed for you to eliminate use of the external resistance line cords (He refers to them as "curtain burners"). These are found on many AC/DC radios from the '30's. Mike Grimes said that he will put Dave's formula and the Excel spreadsheet on the VRPS website in the technical information section.

Author's Notes: Regarding the "curtain-burner" replacement, for appearance purposes a good-condition original cord can still be used by disconnecting the resistance wire at the power plug end of the cord and cutting off the end inside the chassis. For this application, it is important to use non-electrolytic, i.e. film-type, capacitors of about 250 volts DC or AC rating.

Bill McKeown

The Zoom meetings described on this page are available in their entirety on the VRPS webpage, under the "Events" heading.

Photos from the June 19, 2021 Swap Meet

In person at Billy Smith's house!! More photos page 6.



Mike Grimes and Dave Seymour presenting vintage radios to Amy Bishop of radio station WRR in appreciation for her November 2020 presentation on the history of WRR.





THE EXORCISM OF RADIO ZILLA

By Wayne Jones

Everyone has owned (or worked on) at least ONE of these--that simple little AC/DC set that SHOULD be a piece of cake to fix and restore! But then you begin to look at a little closer and you soon realize that what you have in your hands is actually the radio that belonged to Tony Rivers (Michael Landon) AFTER he got injected with the experimental serum that turned him into a teenage werewolf!

Yep....I'm Radio Zilla!

This author was recently visited by such a beast (pardon the pun) when a good friend showed me this cute little Silvertone Model 1 (made by Arvin) and said "I've re-capped it but it still won't play". So what do I do? I foolishly say "lemmie take it home with me and look at it".

So began the demonic possession of my home in Tyler.

The first thing I normally do is pull the Rider's schematic (I have a CD with Rider's and and Beitman's Most Often Needed Diagrams

on it). If it is made after 1945...I generally look for a Sam's Photofact too (these can now be downloaded for free via Radio Museum-even if you are not a member). DON'T always take what is on these schematics as the gospel. There are production changes that don't get recorded and there can be errors.

In this case—BOTH schematics had errors. The Sam's Photofact showed a metal 12SA7 converter tube but had the pinout drawing for a 12SA7GT (glass) tube on the schematic. The Rider's literature had the correct pinout drawing for a 12SA7 metal tube but showed a 12SA7GT tube on both the tube location diagram and on the schematic. Easy fix here. The set is supposed to have a 12SA7 (I inspected the subject tube socket and pin #1 indeed went to chassis ground)--so I removed the glass tube that was in it when I received the set and installed a known good 12SA7 tube.

Since the set had been recapped, I brought it up on my variac and monitored the amperage draw. No excess current draw but absolutely no sound.

So I went back to square one. Tested all the tubes. It had a bad 35Z5GT rectifier tube--so I installed a known good one. All the other tubes were good.

Then I followed my usual procedure of testing all the vitals.

Found an open primary winding in the audio output transformer.

Found an open secondary winding in the oscillator coil.

Found what appeared to be an open primary winding on the antenna coil.

The IF coil was good and so was the speaker voice coil.

Normally...I would NOT have proceed further with this set (it would have probably become a parts set) but my friend had already paid to have the original speaker re-coned AND it was intended to be a gift to his lady friend!

Darn Casanovas—what DO we do with em?

So I grabbed a junker AA5 that I had on hand (it used a similar output tube) and robbed the good audio output transformer out of it. I had the Sam's schematic for that junker set and saw that the impedance of the output transformer in it was little higher than the one which was in the Silvertone Model 1-- and the output transformer size and mounting hole center to center measurements were exactly the same. I got lucky!

For a situation where you don't know the specifications of a potential substitute audio output transformer that you may have on hand—there is an excellent article on radioremembered.org on how to determine output transformer

impedance and how to select the correct audio output transformer replacement for the particular output tube (6F6, Type 42, 50L6GT, etc.) that you are dealing with. The link is as follows:

<https://www.radioremembered.org/outimp.htm>

I then installed the substitute audio output transformer and moved on to the oscillator coil. Unfortunately, I had already robbed the oscillator coil from that junker set (it would have been perfect). So I removed the open coil and immediately saw that one of the wires was broken. I was not able to unwind enough wire off to reattach it to the correct post on the coil--because the broken wire ran UNDER the other coil winding. Never fear...I got out my 600 grit wet/dry sandpaper and lightly sanded off the enamel on the stub of wire that I did still have remaining. Then I got a piece of similar sized magnet wire (I had some left over from a coil rewinding project) and sanded both ends of about a 3 inch donor strip. Then I twisted the ends together and got my soldering iron out and set it to about 400 degrees and prayed! It took. Trimmed the twisted ends, coated the bare spots in the magnet wire with clear fingernail polish and then re-soldered the "new" wire back to the correct post on the oscillator and tested both windings for continuity. You hoo! It was spot on. "We have liftoff Houston." I began to install all the set wiring back on to the oscillator coil and one of the metal posts came loose from the cardboard form. Bummer. Got out my hi-temperature JB Weld and glued the post back and let it sit 24 hours. Second time around, I got everything soldered up and, by some miracle, I still had continuity in both windings.

Brought the set back up again. No stations.

So I removed the antenna coil (that gave me the funky readings earlier) from the chassis. Out of the set--the DC resistance tested good on both windings (by the way--the Sam's schematic had the DC resistance values for the primary and secondary windings in this coil listed backwards!).

So I removed the variable condenser off the chassis and placed it in my ultrasonic cleaner (after marking the number of turns to fully closed position on the screw for each section and then removing the mica wafers). Put the wafers and screws back in and then hooked up my Fluke to each section of the tuning condenser and set the function to ohms (with sound). Then I rotated it. About three-fourth's of the way through the sweep (on each section) -- I got a beep. I inspected that tuning condenser when I first evaluated this set but the fins

were touching in a spot that was not immediately obvious. So I straightened out the fins slightly in each section and retested both with my Fluke. No beeps this time. After I installed everything back in place--both the primary and secondary windings of the antenna coil tested spot on.

Brought the set up again (with a nice long wire antenna attached) and still no stations!! GRRRRRRRRRR.

I started looking around to see if Linda Blair from The Exorcist was in the room.



This set is a Plain Jane four tube set with only one IF transformer--so I figured "well-- I will see if it is out of alignment." First step was to check the two trimmer screws for the IF transformer-- to make sure they were not frozen. I guess someone must have "fixed" em in the past because both screws were tightened completely down as far as they would go!!

So I got my signal generator out and performed an alignment per the manufacturer's instructions and I FINALLY got one local station. YOU HOOOO!!

There is so much RF interference in my house that all I could get downstairs was our strong local station--KTBB AM 600. So I took the set upstairs and was able to get a couple of more stations. Later in the day-- I took this set over to fellow VRPS member Richard Beaman's house here in Tyler and hooked it up to his nice outdoor long wire antenna. It played marvelously for a set with only one IF transformer and Richard did another alignment on

the set while it was attached to his outdoor long wire antenna. After playing it for a few hours--the 12SA7 tube mysteriously bit the farm (told you the thing was possessed). Richard installed a new 12SA7 and it has been playing ever since.

There were a few other issues that I had to deal with (a wiring lead dress issue—the wires from a restuffed firecracker electrolytic were running over the one IF transformer (which was not located on the top of the chassis inside a can but underneath it) but we were finally able to cast the last demon out with a proper alignment (and a good outdoor long wire antenna attached).

Thanks Richard for your assistance in the Exorcism!

I hope I have not bored you “master restorers” but I want to emphasize to you newer folks that it is ultra important to NOT GIVE UP. Many of us have extra tubes and junker sets and diagnostic equipment (such as a signal tracer or an oscilloscope) and we will be MORE than happy to help a fellow collector/restorer who is trying to learn all this--- WITHOUT intimidating you. DON'T be afraid to ask questions (how else are you gonna learn). Attend our monthly meetings (I have learned many a restoration tip that way) and be proactive in between meetings. There are several excellent radio restorers that have channels out there on You Tube (RestoreOldRadios, Buzz 1151, radiotvphononut, Mr. Carlson's Lab, Flux Condensor, etc.). Each will walk you thru how to test the various vital components on several different kinds of vintage radio receivers. Most will even have a video that will show you how to repair or replace (or even make) vital parts. All of these gentlemen have done excellent presentations on

how to properly align radio receivers and there is another excellent article by Mike McCarty on that subject in the technical section of the VRPS website. AND our very own VRPS member Brett Manassa sells some excellent CD's on how to do vintage electronics restoration, radio alignment and even how to do bakelite and wood cabinet repair and wood cabinet refinishing. Finally, there are articles by Mike McCarty in the technical section of the VRPS website (and videos on You Tube) that show one how to use all the different diagnostic tools that we now have available (Signal Generator, Signal Tracer, Oscilloscope, etc.) -- with the goal of saving time by isolating trouble spots in vintage radios.

So what are you waiting on?

Don't be a Radio Zilla!

Get out there and have some fun. Our next repair session is on July 17th at Senter Park East in Irving. Come on up and watch as our folks diagnose and repair the various sets that will be brought in. Bring your set-- if you like. We'll be glad to help you with it!!

And so ends the demonic possession of the Jones household in Tyler, Texas.

I sent that Satanic wittle beast back to its owner as quick as I could!

Call me superstitious if you like-- but I didn't want those demons getting anywhere near my prized Stewart Warner 1262A tombstone (that was purchased new in 1934 for \$69.95 by my Great Uncle Elbert Jones--and his wife Jesse--in Hope, Arkansas)!!

More photos from the June 19, 2021 Swap Meet



2021 VRPS Convention Theme -- 100 Years of Broadcasting.

The annual convention will be held November 19-21 at the Comfort Inn East in Plano. Call 972-881-1881 to make a reservation. Be sure to mention that you are with the VRPS to receive the club discount. For those of you who can't wait, convention registration forms will be available soon on VRPS website. Convention packets will also be mailed in the fall.

The 2021 Old Equipment Contest Categories are:

1. Crystal Receivers Pre 1940
2. One Tube Radios Pre 1928 (No Crystal Detectors)
3. AC Table Receivers Pre WWII
4. AC/DC Tube Radios Pre 1960
5. Transistor Radios Pre 1965
6. Phonographs and Related Accessories Pre 1940
7. Radios from Western Radio in Kearney Nebraska
8. Tube Type Ham Radio or Military Equipment Pre 1960
9. Novelty Radios-Tube or Transistor
10. Radio Related Ads, Ephemera, and Accessories
11. Television Receivers Pre 1970
12. Table Top Art Deco Radios (Includes Catalin, Chrome Front, Others)
13. Battery Radios Pre 1928
14. Foreign Radios
15. Homebrew Radios Pre 1930
16. Kit Radios Pre 1930
17. Contest Theme- 100 Years of Broadcasting (Any Items Pertaining to History of Broadcasting)
18. Open Category (Radio Related Items Not Belonging In Other Categories)

The California Historical Radio Society has an interesting page on 100 Years of Radio. Here's a link to the page: <https://www.californiahistoricalradio.com/radio-history/100years/> The page also has a link to a five-part series The Emmy-Nominated 1985 PBS Series, "Radio Collector".

SOUNDWAVES IS PUBLISHED QUARTERLY BY THE VINTAGE RADIO & PHONOGRAPH SOCIETY, INC.

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MONTHLY MEETING PROGRAMS 2021



JUL. 17 -REPAIR SESSION -SENER EAST -8-NOON OCT. 16 -TBA -SENER EAST -2-4PM

AUG. 21 -TBA -SENER EAST -2-4 PM

NOV. 19 - 21 -CONVENTION - COMFORT INN EAST, PLANO

SEPT. 18 -SWAP MEET -SENER EAST -8-NOON

DEC. 11 -CHRISTMAS PARTY -GARDEN & ARTS -2-4 PM

NOTE: Programs will be held at various locations in Irving, Texas. Make note of the location as they may change: Senter East, 228 Chamberlain St.; or Garden and Arts, 906 S Senter Rd. Maps are located on the WEB site, www.VRPS.org EVENTS page. Call us on the cell tellie if you get lost: 972-898-7251 or 972-742-8085.

Programs are subject to change, contingent on scheduling conflicts. As always, your suggestions for programs/ content are welcome. If the programs do not fit your needs and you want something different, let me know. I need volunteers to organize other programs, so consider presenting a program yourself. Call anytime or send an email: **Larry Lindsey email: pipilindsey@tx.rr.com telephone: 817-312-8761..**

Membership dues of \$20 are due November 1st every year. Renewals may be sent to :
VRPS, INC., P.O. BOX 165345, IRVING, TX 75016, or paid via PayPal, see [website](#) for details.