

October 2014



**NOTE FROM PRESIDENT TOM**

Hello, All!

Time is flying by and soon it will be time for holiday festivities, especially our December Christmas Party! More on that later. We are preparing for the Helena Ham Fest on October 11 and look forward to some radio fellowship and cool weather bargaining. There are still many radio-related items available at the Shop, if you are looking for a project radio, parts radio or just something to display. Please come check these items over and take something home (please!). Saturday, October 10 was a normal workday until who should appear – Robert Frye, all the way from Loxley, Alabama. Of course, Robert is our Radio Class instructor and is usually SKYPED in for three hours of class instruction on the first Saturday of each month. He had a short visit and was doing very well health-wise. He and Margaret are doing some traveling this week. We asked him to pose for a group picture. He has never been shy about being in a picture.



Robert is on the far right.

We have several members who do great restorations on radios, such as Marvin Shepherd's restoration of the chair side radio in last month's Newsletter. We have another member who has done several restorations, some featured in past Newsletters, but this one may top his past efforts. Mike Lord took on another challenge to repair a radio anyone else would have thrown away. Read his story and look at the incredible before and after pictures. I believe you will agree with me that this is an outstanding restoration!

We are expecting a delivery of donated estate radios from the Augusta, GA area on October 23. Based on the pictures and discussions with the family, these will include many museum quality radios, which we will proudly display in our Museum and Shop display areas. Come by and check these new additions out after the 23<sup>rd</sup>.

Our next Monday night meeting will be on October 27, at 7:00 p.m. at the Shop in Birmingham, Alabama. There will be a Board meeting at 6 p.m. preceding the regular meeting. The October meeting program is TBA. At one of our upcoming Monday night meetings, we are planning a program on wood refinishing and veneer repair/replacement. Marvin Shepherd and Mike Lord will show us some of their tricks! If you have an idea for a program, please let me know. There are many areas of radio communications/repair we can learn about, so put your thinking caps on and give me some ideas.

Our next radio class is on Saturday, November 1, at the Shop, beginning at 9:00 a.m. Come learn to repair old radios!

*President Tom*

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## **1939 RCA World's Fair Radio Restoration**

**By Mike Lord**

Generally speaking, the radios we restore offer some degree of challenge. Sometimes, the degree of challenge can be daunting. This was the case I recently had with a 1939 RCA World's Fair Radio.

Frankly I was unaware of this radio. It wasn't until this past May when Dave Cisco and Mac White asked me if I would refinish the case for one such radio. Of course, I said yes. Mac had the radio at his house and said he would bring it to the shop the following week. After several weeks went by, and I had heard nothing more, I asked Dave what happened to the radio case. He said "It's over there on the bench, but I don't think you can do anything with it." As it turns out, Mac had the case stored in his garage and had gone on vacation. When he returned, he discovered some critter had gotten to the case and chewed it up rather badly. In fact that's an understatement! Whatever animal it was, it had gnawed the entire case face, taking off two corners etc., and chewing into it,

leaving huge holes. The remainder of the case was litterly falling apart! It looked rather hopeless. Nonetheless, I told Dave I'd give it a try.



**Back side view of case front. The dark brown areas are hide glue/sawdust mix used to fill deep holes.**



**Remainder of case. The white material is asbestos for heat.**

I did an internet search and found numerous pictures of the original radio and a surprising amount of history. One source reported that thousands of the little radios were given away at the RCA pavilion. I suspect that may be one reason why the radio

was cheaply made. The case face was made out of some sort of paper mache material that had been pressed into a mold to form all of the features depicting the 1939 World's Fair scenery, including the RCA pavilion. The wood case is described as having been walnut, but is definitely not true with our unit. The wood is soft, without any significant grain, although it may have originally been stained walnut. Our unit is most likely poplar.

After an initial inspection I decided to fill the major holes with a mixture of hide glue and sawdust. However, rebuilding the corners would be best done by building up the damaged areas using layers of Bondo. I drilled several small holes in each damaged corner, inserted small round tooth picks in the holes and then connected them together with small gauge wire to create a base for the Bondo.



The remaining portions of the damaged face edge were filled with the Bondo without the need of a base. (See following page).



I allowed several hours between coats of the Bondo to cure. In order to reconstruct the features of scenery in the damaged areas, I made the trees from a mix of glue and saw dust, and the clouds were made with drops of glue flowing into each other. Tools for the project included small chisels made from nails that I filed to a cutting edge. I also made use of dental bits mounted in a Dremel tool and strips of sand paper held to small sticks with double sided tape. These tools, and plenty of patience, served the purpose quite well.



The main case required major repair. The plywood base layers were pulling apart. I separated each layer and re-glued them. The top of the base was so badly damaged; I laid a new layer of veneer on to it. The sides, top and handle were severely nicked. After gluing all of the parts of the case together and sanding thoroughly up to 400 grit sandpaper, I finished with Bartley's gel stain. The nicks were then repaired with several coats of sanding lacquer applied with a small brush and/or tooth pick into each nick. The final finish included several coats of spray lacquer sanding between coats using 600 grit sandpaper and XXXX steel wool.



**Tooth picks glued into holes drilled into case face. Wire strung between the tooth pics to form a base for layering the Bondo.**



**Bondo layered on corners and side fill.**



**Carving features in Bondo and placing tree features.**

Now that the case was finished, I began work on the chassis, which was a complete mess.



The outer chassis needed a thorough cleaning. The main tuning capacitor, IF transformer, and speaker transformer required removal from the chassis for repair. The speaker had been replaced in the past, but it was sized incorrectly. The speaker transformer was mismatched to the speaker and too large for the chassis. As a result, I decided it was easier simply to strip the outer chassis.

Many of the under chassis components were badly damaged. All resistors, except one were out of tolerance by at least 30% or burned open. Most capacitors were leaky. Wiring was dried and cracked to the point where the insulation was falling off the wire. The Osc. and IF transformers were damaged. With all of this in mind, I decided to re-wire the under chassis.





**Under chassis view**

The last problem was reconstructing the internal antenna, which was completely missing. An on-line search gave me an idea of how the original unit was made and mounted to the chassis. The schematic indicated that the resistance was 1.5 ohms. Since there is no RF amplifier stage, the antenna was designed to be part of the tuned input circuit. Various wire was tried, but the only wire that worked was Litz wire. I also found that without an RF amplifier stage, an outside antenna was needed. In order to couple the outside antenna to the internal antenna, I added 100 pf capacitance to achieve a maximum match.

The completed project has a nice presentation. However, this is not a particularly interesting circuit. It is rather mundane and not noteworthy from either an RF or AF perspective.

Here are some pictures of the finished project.

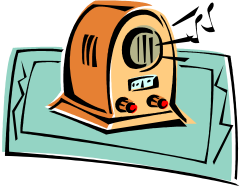


**Completed case**



**Finished chassis top view**

If anyone has any questions, please feel free to drop me an email at [k4elv@bellsouth.net](mailto:k4elv@bellsouth.net).



## **OLD TIME RADIO BITS**

Hi Sports Fans,

I have happy memories of listening to the “play-by-play” baseball games on the radio with my dad when I was a child. Even now in my 71<sup>st</sup> year on this old planet, I occasionally will stumble across a Birmingham Barons game on a local station. All of the games on radio now are broadcast directly from the press box at the stadium. However, that wasn’t always the case in the earlier days of radio.

In my early years as a technician for the Associated Press in Atlanta, I worked with a couple of teletype operators that would go to the Brave’s games to “punch” in the play-by-play. An editor and the TTY operator would go to the game and sit in the press box where there would be a teletype set up to send copy back to the AP Bureau. From the Bureau the data would be sent out to all the radio stations that had the AP service. The editor would write the copy and hand it to the TTY operator to send out.

The copy was rather plain and maybe you could say boring, such as “Smith taps out to shortstop” or maybe “Jones flies out to centerfield,” but that was all that the local radio broadcaster needed. He could always adlib. If you listen to those old broadcasts, you could hear the teletype going in the background, so you knew that the game was coming to you from the radio studio. A good announcer could spice it up and make listening to the game a lot more fun.

Take the two quotes above. They could go something like this. You hear the crack of the bat. (The announcer hits a piece of wood with another piece of wood). At the same time, he turns up the volume on a track of a roaring crowd and says, “There’s a hard grounder toward left field! Shortstop Thomas makes a diving catch and throws to first just in the nick of time to get Smith out.” “Boy! What a play!” or “There’s a drive! Wallace runs back toward the center field fence. He’s at the warning track. Looks like this ball may be out of here. NO! Wallace makes a leaping catch for out number three.” If you want to listen to some games from the past, you can go to the website below and click on any of the games listed. There are 14 games listed covering about 20 years starting in 1948. Right now, I am listening to Mel Allen broadcast the 1948 World Series from Boston, where the Cleveland Indians are playing the Boston Braves.

[https://archive.org/details/baseball\\_otr](https://archive.org/details/baseball_otr)

See you on the radio,

*Dee Haynes*

243-4630

[k4hfx@bellsouth.net](mailto:k4hfx@bellsouth.net)

## **MEETING TIMES**

We meet every Saturday (unless a Holiday weekend) at 09:00 AM, at the one-story AHRS Shop at the corner of 8th Avenue North and 18<sup>th</sup> Street (1801 8th Avenue North, Birmingham, AL 35203). Use the rear (Southeast) entrance.

Also, we have opened the Shop on Tuesdays at 09:00 AM until around 11:30 AM when we go to Marilyn's Deli and Dog for lunch next door. Note that parking can be a problem on Tuesdays because it is a business day and the lot is usually filled, so you may have to find street parking occasionally.

**We meet on the fourth Monday night of each month, too, at 7:00 PM. Please come join us!**

## **FREE ELECTRONICS CLASSES**

One more great benefit from becoming a member of AHRS--free Electronic classes!

Classes are taught the first Saturday of each month (except when something special is taking place, then we agree on what Saturday).

We start from the beginning Ohms Law, inductors, resistor and Capacitors color codes, as well as what each component does within the radio circuits. We also teach how to use test equipment used in the repairing of radio. We teach troubleshooting radio troubles, as well as how to read a radio diagram. There are coil winding classes, and one-on-one repair help.

Come join these classes.



**DUES! DUES! DUES!**

Membership dues are \$25 a year, payable beginning in January. If you have questions about your dues, you can contact Don Letchman at 205-967-8557. **Dues can be mailed to AHRS @ P.O. Box 131418, Birmingham AL 35213.**

## **WHO TO CONTACT**

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