

THE OLD EQUIPMENT CONTEST

2023 AWA CONFERENCE

Welcome to the 2023 AWA Old Time Equipment Contest. This year's theme is a celebration of 100 Years of Radio Broadcasting. Though it may not be on everybody's "this day in history" calendar, 2023 marks the 100th anniversary of the AM broadcast band. Originally only two frequencies had been allocated for broadcasting, 360 meters for news, lectures, entertainment, concerts, and 485 meters for weather and crop reports—but only where it didn't interfere with maritime activities. These wavelengths corresponded to 834 kHz and 619 kHz respectively, calculated using the speed of light as it was then understood.

Two frequencies soon proved to be unworkable for all the broadcasting stations that wanted to take to the air. Interference became unmanageable. The second National Radio Committee, under Secretary of Commerce Herbert Hoover created a broadcast band which extended from 545 meters (approximately 550 kHz) to 222 meters (1,350 kHz). This drew considerable ire from some factions of the radio amateur community who had shared those frequencies with commercial and maritime users for years. While maritime users temporarily got to keep three broadcast band frequencies until they could be relocated, amateurs were uncerimoniously kicked out of the band and moved to shorter wavelengths below 200 meters which were then thought to be useless for long distance communications (the hams soon proved otherwise). But by 1923 radio broadcasting in the U.S. was no longer a nebulous concept or an experiment. It had become part of everyday life for many people.

This year's Theme categories will include early 1920s broadcast radios, equipment, artifacts, and ephemera. Since many people in those early years chose to build their own radios from plans printed in newspapers and magazines, "homebrew" radios are of special interest. Of course manufactured radios are also welcome! But if 1920s radios are not of interest to you, we have revamped our Standard and Open categories for virtually everything else in electronic communication. One might wonder, what are the judges looking for in each of these categories? It's pretty simple. What we are looking for is the story you want to tell. Of course the scarcity and history of the items you bring are considered, as well as the condition they are in. But it is also what you say about them in your display. Where did you find the item? What work was done on it? What makes it special to you? A common radio or other artifact with a good story and a good presentation can do better than a rare or unusual item with no documentation or story to tell. We have also added new categories for youth electronics and collecting.

The Theme Category: One Hundred Years of Broadcasting

What we are looking for this year are displays that chronicle the first year of modern radio broadcasting. Examples would be a complete 1923 home radio installation consisting of a radio from 1922 or 1923 with speaker or headphones, antenna components, and a battery box or replica batteries (given the weight and spillable nature of liquid filled lead acid batteries, we recommend leaving those home). As mentioned, many radios of this era were assembled by their owners from parts or from kits, so a homebrew 1920s radio with its plans from a book or newspaper would make a good display. A display of microphones or station equipment, or history of a particular broadcast station that was on the air in 1923 are other examples. Or one could make a display of radio program guides, textbooks, newspaper articles, or other ephemera from the early 1920s. Depending on the entries that come in, multiple awards may be issued for best receiver display, best radio station display, and best ephemera display.

New Categories This Year: Youth Electronics and Collecting

In the hopes of encouraging more young people to become interested in electronics both vintage and modern, the AWA has created two new contest categories for anybody under the age of 18 who:

- (A) Has completed a project of any type, modern or vintage, where they designed, built, or experimented with electronic circuitry. Experimental projects do not have to be successful as understanding why things did not work is often more instructive than replicating known results. Displays should explain what they were working on, how they did it, and what they learned from the experience.
- (B) Has collected a vintage radio or other electronic device they wish to display. "Vintage" for the purposes here would include any electronic device that is 25 years old or older. Restoration of appearance or

operation is not necessary. The display might be about how the owner came across the device and why they are interested in it, how they came across it, and what they've done with it so far.

The Standard Categories: What We Do Every Year

1. 1920 And Before

In this category we include all forms of electrical communication such as wireless (spark, arc, etc) as well as landline telegraph and telephone, WW-1 and pre-WW1 tube equipment, and passive receivers. Other types of pre-1920 equipment such as meters and measuring instruments, stock tickers, fire telegraphs, and the like may be entered as long as they were part of, or used in electrical or electronic communication systems. Entries will be grouped by category (eg. Telegraph, wireless, WW-1 military, amateur, and so forth) and judged accordingly.

2. Radio Arises, 1920-1935

The first 15 years of radio development were ones of great change. At the beginning of this period passive receivers (those with crystal, carborundum, or other types of detectors) and one-tube regenerative circuits predominated. Battery power was used almost exclusively for tube receivers. Existing tube types were rapidly superseded by new developments. Reflex and TRF circuits were developed to make radios louder and easier to use. But by the end of the period line power had replaced batteries except for situations where line power was unavailable or impractical, triode tubes had given way to complex multi-grid types, and the superheterodyne had displaced regeneration and TRF circuits for most purposes. Automobile radios were practically unheard of at the beginning of this era but had become both practical and popular by the mid-1930s. Despite the Great Depression, experiments in television and radio facsimile continued and some equipment was available. This category is not just for receivers, but includes related items like tubes, speakers and headphones, batteries, chargers and power units, and ephemera like station logs, magazines, advertising, and novelties.

Since radios also had to fit into households, how they were housed became quite important to purchasers. Open breadboard style circuitry was housed in cabinets, and the cabinets ranged from simple tabletop, mantle, and portable cases to large elaborate furniture consoles. Multiple tuning knobs and filament controls were merged into single-dial tuning and volume controls. Clumsy horn speakers were replaced with sleeker cone types which were then built into the radio cabinets. The judges will group the entries received by category so one, two, and three tube battery sets will be judged against similar battery sets, more elaborate battery sets will be judged against comparable models, AC sets will be judged against AC, and so forth.

With so much going on in the first years of radio there are lots of opportunities to make a display out of your favorite pieces. Innumerable small companies sprang up, made a few radios or other products briefly, then disappeared just as quickly, leaving stories—and often mysteries—in their wake. Some of these radios and other products are exceptionally rare today. There were many developments in foreign countries which would make interesting entries as well.

3. The Golden Years, 1936-1942

By 1936 radio circuitry had become more or less standardized around octal tubes and superheterodyne circuitry. But the industry continued to grow and develop by producing a wide variety of radios ranging from very simple “utility” sets to elaborate high fidelity consoles. Cabinet styles to fit any décor were available, and every price and quality point was represented. But technology did not stand still. Towards the end of this period, portable radios were miniaturized with new tube technology, and FM and electronic television became available to consumers.

This is the category to enter prewar radios with interesting or unusual cabinets, elaborate chassis, or other features, and to tell us why you find the radio interesting or attractive. Entries from any country are welcome.

4: The Postwar Era, 1945-1975

This era represents tremendous change and the development of new products leading to modern times. Large scale television broadcasting and manufacturing got underway and did not stop until many households had gone through black-and-white sets to color. FM radio initially faltered but then caught up to and finally surpassed AM broadcasting as the most popular radio format. High fidelity systems of various types appeared in most households. Transistors were introduced and soon displaced tubes nearly everywhere; towards the end of the era, integrated circuits began doing many of the jobs previously done by discrete transistors. As with the earlier periods, entries will be grouped together, e.g. television items will be judged against other television items, transistor portables against transistor portables, etc. We welcome related items as well as receivers; for example, an early EIAJ video recorder could be included as part of a television display, or a phonograph turntable or tape recorder could be used to round out a hi-fi display.

5. Radios: Other

There are many areas in electronic communication besides household radios which deserve special recognition. These include (but are not limited to) ...

- Amateur radio receivers, transmitters, transceivers, and accessories;
- Broadcasting equipment;
- Commercial communications equipment;
- Electronic laboratory and research equipment;
- Military Radio;
- Mobile and Portable Radio;
- Radio Astronomy;
- Test Equipment;

6. The Open Category

This is the category for anything and everything that doesn't fit into any of the other categories. Basically it only has to be associated with electrical or electronic communication! Winning entries tell stories: what you like or find interesting about the item, where you found it, what did you find out about it, and so on.

7. The Restoration Categories

A. Restoration of Appearance. The purpose of this category is to display examples of rebuilding and refinishing the cabinets that were used to house radio receivers. There is no requirement for a particular kind or size of set to be entered and it does not need to be operational. A description of the work done will be considered an important part of the entry. Entries will be judged on the originality of the appearance of the radio, including woodwork, chassis and component appearance, escutcheons, dials, knobs and other visual details.

B. Restoration of Operation. This category is for entries where a radio or related piece of equipment is returned to its original operating condition in a historically correct way, by rebuilding or refurbishing old electronic and mechanical components, or concealing modern components inside old ones. The equipment not only looks but works like it did when new. An entry should include documentation of the restoration work that was done.

C. New or Rebuilt. Sometimes a receiver or other artifact is so rare that there is no hope of getting one except to make a replica. If a particular circuit is of interest, it may be preferable to build it with modern tubes and components which are more available and not use scarce early ones. In other cases, significant damage has occurred or major parts are missing from a historically significant item, making it necessary to fabricate replica parts and assemblies from new or old materials. This is the category for those who like to make things reflecting history that is for the most part out of reach today.

8. Contest Special Awards

ELLE CRAFTSMAN Given in memory of Bruce Elle to a builder of a high-quality radio receiver of an old or new type.

MATLACK TRANSMITTER Given for excellence in constructing or restoring transmitting equipment.

RALPH O. WILLIAMS DISPLAY Recognizes the informational value and quality of an exhibit in the contest at the AWA conference.

THOMPSON BEST OF SHOW Awarded in honor of early amateur Eunice Thompson, W1MPP, for the top entry in the Old Equipment Contest at the Annual Conference.

PEOPLE'S CHOICE Awarded to the entry that receives the most favorable votes from attendees and visitors to the contest. All entries including displays are eligible for this award.

Contest Coordinators Geoffrey Bourne and Chris Bacon