

ARCH CLUB NEWSLETTER

SEPTEMBER 2025

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Meeting Notes:

19 Members were present at the September ARCH meeting. Three visitors were in attendance. A husband and wife named Neal and Lindy visited. She has a collection of antique radios and has been restoring since a child. She seemed very knowledgeable of restoration methods. Has more radios than she has storage space for. Wants to see some go to a good home.

Al Poklis attended as he was curious about the club. He, as a side business, cuts records and restores recording lathes. Works with a lot of antique amplifiers. He also restores and sells jukeboxes. www.LynDoverRecords.com

Cookies brought in by an ARCH member were again enjoyed by everyone.

There were not many radios brought in for Show and Tell. However, the conversations among club members were both numerous and enjoyable.

Joe visited the home of a person whom sent him an e-mail. Joe showed pictures to club members. Joe will be getting with the home owner to discover if they want to have an auction style sale of the radios. Radios are mostly TRF radios with a few bakelite and Zenith T/Os.



Old & New Business

Moving back to Kirkwood Community Center. Joe will confirm before the Oct. meeting.

The ARCH Annual Fall picnic will be held at Bill Petty's home. Saturday September 27th at 10:00 AM. Additional information on Event page of newsletter.

Club dues for calendar year 2025 is currently \$20.00 dollars. Please support the club by becoming a paying member. Dues go toward the Christmas party, room rental, and club picnic events.

*Join us for our next
meeting:*

**Tuesday October
14th, 2025 at 7:30 PM**

*Kirkwood Community
Center
111 S Geyer Road,
Saint Louis, MO*

63122

Event Announcements (Ham Fest & Club Events)

32nd Halloween Hamfest

October 25th, 2025
Kirkwood Community Center
111 S. Geyer Road
Kirkwood, MO
8:00 AM—1:00 PM
<https://halloweenhamfest.org>

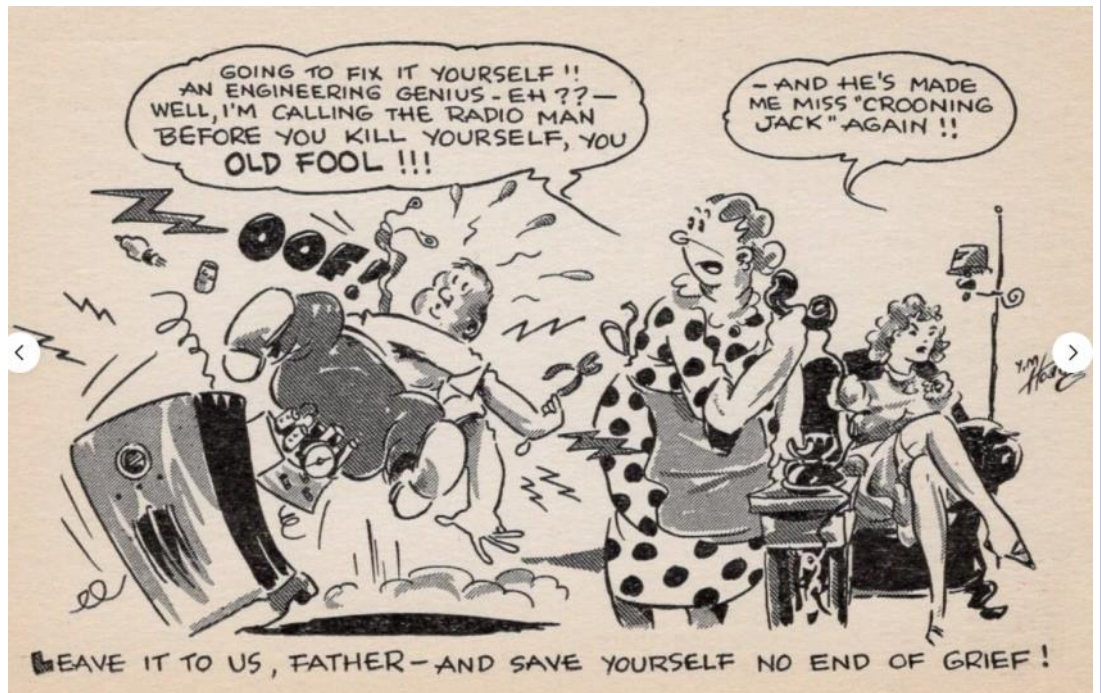


ARCH Fall Picnic

September 27th, 2025
10:00 AM—?? PM
Location: Home of club member Bill Petty
#7 Hapsburg Court
Imperial, MO 63502



This is a picture of a post card mailed to customers of radio repair shops.



Local and National Radio News—Kind of...

Editor Note: When well known companies such as RCA or Sylvania stopped building KT88, 6L6, and EL34 tubes, many other questionable companies stepped in to fill the gap. Today, the procurement of a new vacuum tube is possible but the quality & reliability is questionable. New tubes also do not always have an equal performance. A tube from Russia or China may command a high price but a NOS tube from RCA commands a price that is 10 or more times greater. Semiconductor companies have started to move away from older designed transistors. No longer making older transistors has resulted with stock piling and also price gouging. What happened with tubes is now occurring with transistors. This is an article below from www.headphonesty.com

Audio Legend Reveals How a ‘Black Market’ for Obsolete Parts Is Keeping High-End Audio Alive

Behind the glossy brochures and five-figure price tags, many high-end amplifiers rely on discontinued components. These parts once cost cents and were easy to source, but now they’re scarce, expensive, and often counterfeit.

Designers are left hoarding what they can, knowing every build eats into supplies that can’t be replaced.

John Curl says the parts shortage really began when Toshiba stopped making the low-noise JFETs (Junction Field-Effect Transistors) that many high-end designs depended on.

Toshiba hadn’t left the transistor business entirely, but those particular devices (i.e., singles like the 2SK170 and 2SJ74, and duals like the 2SK389 and 2SJ109) were unique. Designers valued them as input stages for phono and line amps because they offered very low noise, good gain, and strong thermal tracking when built as matched pairs.

Unfortunately, these transistors were hard to duplicate because Toshiba made them in-house, from silicon wafers through to final packaging. That vertical integration, he argues, produced characteristics no other supplier has been able to match exactly.

Of course, other companies have tried to step in, though. For example:

California-based Linear Integrated Systems now produces drop-in N-channel replacements like the LSK170 and duals like the LSK389, and even a dual P-channel device, the LSJ689. InterFET also offers a wide JFET portfolio, and more recently Texas Instruments introduced the JFE2140, a modern N-channel matched pair. Still, Curl insists that none of these are perfect substitutes, especially when a circuit requires P-channel duals.

“They don’t make the P-channel matched pair, which is the thing that Toshiba could do,” Curl explained in a recent interview with Michael Fremer.

Local and National Radio News—Kind of...

The company must outsource certain processes, and according to Curl, “those other somebody else’s may not really care as much.”

The thing is, matched pairs matter because they keep both halves of a circuit thermally balanced, which cuts down on offset and distortion.

Curl and other designers argue that when you can’t get the exact devices you designed around, you have to make compromises that can change the sound. For example, a single matched pair of the once-ordinary 2SK170 or 2SJ74 can now reach double-digit prices, and rare IDSS grades climb even higher. That price wasn’t only for the transistor itself, though. What pushes prices higher is the need for matched and graded pairs, as devices that behave identically and keep distortion low.

Designers also pay premiums for verified provenance, since counterfeit Toshiba parts are common in online marketplaces. That puts manufacturers in a bind. Curl says companies have been forced into bidding wars just to secure enough parts for their next production run. In fact, some builders of five-figure amplifiers now spend thousands on sourcing obsolete semiconductors, even before a chassis or transformer is built. Once Toshiba stopped making the low-noise JFETs that so many high-end designs relied on, some engineers took matters into their own hands.

John Curl says the most dramatic move came from Charlie Hansen of Ayre Acoustics, who made what looked like a desperate bet at the time. He recalls Hansen even mortgaging his house to buy hundreds of thousands of JFETs, possibly close to a million, before supplies disappeared. That stash turned into a lifeline. Curl says Parasound, one of his longtime partners, later had to source devices from Hansen’s stock when their own supply ran short, which is something he had warned them about for years. “I kept saying, You’ve got to buy more parts. You’re going to run out of these things and they’re not going to be available anymore,” Curl remembered telling Parasound’s founder. These stockpiles weren’t just big boxes of transistors. Designers treated them like strategic reserves. Parts had to be stored carefully to avoid moisture and static damage, then re-tested and matched by hand years later to make sure they still met noise and gain requirements.

The discontinued Toshiba JFETs still show up in some of the world’s most expensive audio gear, but every unit that ships uses up pieces that will never be replaced.

This shortage matters most in low-noise input stages such as phono preamps, where P-channel dual devices are especially hard to substitute. N-channel replacements exist, but Curl argues they don’t behave quite the same, and redesigns often bring tradeoffs in noise, balance, or sound signature.

Peter Madnick of Constellation Audio secured tens of thousands of parts for his company. Curl himself also rebuilt his own reserves after losing a large collection in the 1991 California firestorm. From then on, he quietly gathered devices in small batches

“Is there anything else we can use?” manufacturers asked Curl when supplies ran low.

Local and National Radio News—Kind of...

His answer was sobering: “No, not really. Not without compromise. Serious compromise to the design.”

That leaves companies with only a few paths. Some buy and store enough parts to cover years of production. Others redesign around newer devices, which means retuning circuits and re-qualifying products for safety and performance. A few quietly limit production runs and accept that certain models will eventually end. Stockpiles also have to cover service and repairs, not just new sales. And, once parts run out, brands face hard questions about warranty support and the resale value of past models.

Even with careful planning, dry storage, re-matching, and record-keeping, the clock is ticking. As Curl puts it, every amplifier that leaves the factory is another step toward the bottom of the barrel. The industry can keep going for now, but its future depends on how long those reserves last and how willing companies are to adapt their designs when they don't.

Show and Tell - September 2025 Club Meeting

Carl Kleinsorge —1952 RCA (3-BX-671) Strato World Shortwave Receiver

Carl has spoke about this radio at previous meetings. He procured this radio while in Chicago with Bill Petty. Carl is a fan of the RCA Strato World radios. He spoke highly of the RCA Strato World Mark One radio. Specifically a fan of the final (1969) model year which was Model RZM-198EX. RCA had taken many features and designs from Zenith's Trans-Oceanic (T/O) with their Strato World receiver.

This radio has an aluminum housing covered in leatherette. This housing is different than Zenith which is based on wood. The aluminum housing shielded the radio from radio signal interference. Carl spoke about how RCA was similar and different than a Zenith T/O.

Similarities	Differences
Same A & B Battery case and battery connector	Zenith Chassis sits on plywood.
Same 220 volt adapter for overseas use.	Zenith's chassis holding the components is open underneath.
Same tube layout. (Used a 1L6)	RCA component chassis is covered by a sheet of aluminum. (Provides a degree of RF shielding.)
Chassis tubes are in similar positions.	RCA has a 6" speaker while Zenith had a 5.25"
AM uses equivalent (electrically) loop antennas. The connector is even the same for both!	RCA has a variable separate tone control knob while Zenith has a slide switch.
	RCA separates the chassis ground from signal ground. RCA's 3-gang tuning capacitor was "enhanced" It is easier to attach an external antenna to the RCA versus Zenith RCA employed a few additional fins to the tuning capacitor to provide a slightly large band spread.

Carl spoke about how the leather is in amazing condition. He was even impressed the rubber suction cups for the external antenna were in great shape and still pliable!

A test of this radio has revealed it does not work. Carl, performed a quick test, and discovered the oscillator tube is not oscillating. He did pass a 455 kHz signal through the radio and all stages pass the oscillator are working well. Will rebuild when he has more time.

Carl Kleinsorge — 1952 RCA (3-BX-671) Strato World Shortwave Receiver - (Continued)



Notice the smaller extra fins on rear of tuning capacitor.

Joe Tauser—1947 Jefferson Travis MR-3

Joe has finally finished restoring this radio. If you recall, Joe has had desired to have this radio because his initials (“JT”) are on the front.

Had an airline cloth cover. Since this radio is not “valuable”, he elected to paint it instead of recover it. Painting was challenging. Paint colors do not really mix well. Could not easily darken blue paint... he instead started with black paint and tried to “blue” it.

The paint was originally pretty thick. FlowQuil, a water based paint, was used. He ended up with cutting the paint by 70% to increase it’s viscosity (flow ability). Matte Medium, a paint with no pigment, was used to thin and provide a matte finish.

Regarding the back. The use of Bordart White Cloth Hinge Tape worked exceptionally well. He could never locate a proper “snap”. He simply applied a rivet to a piece of leather. The leather hides a piece of Velcro to keep the back closed. The leather came from Tandy Leather off Tesson Ferry Road, St. Louis, MO.

An early issue with the oscillator was discovered. The oscillator would not oscillate reliably. It would sometimes oscillate and stop randomly. It was discovered a cold solder joint had existed on the oscillator’s plate.



Story Time with Fred!

Fred Smith spoke to club members about his experience with an unnamed gentlemen in Canton, Ohio. The pickup rebuilding business is owned and ran by this 81 year old man. Fred has used his services multiple times over the last several years.

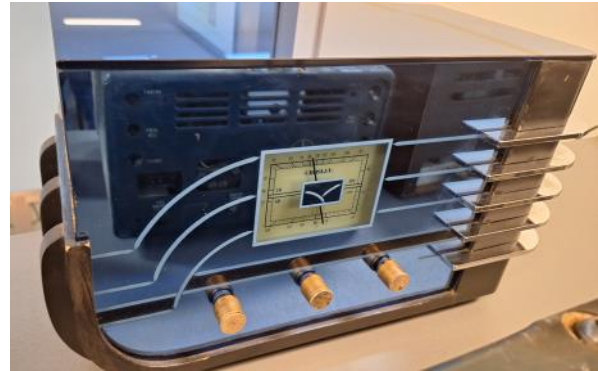
The man is a retired math teacher. Upon retiring, he became bored and got into the radio restoration hobby. He had met a engineer in Tennessee that built a machine which would build transformers, dials, pickups, and other components. The engineer sold the machine to this guy.

This guy would like to sell the business today. States the business is a lucrative business.

If anyone is interested, speak with Fred Smith.

Raffle Table

The raffle table was full of great radios. Many club members had their eye on the Crosley Blue Mirror Sled reproduction radio. (Model CR 38)



Panasonic Radar-Matic!

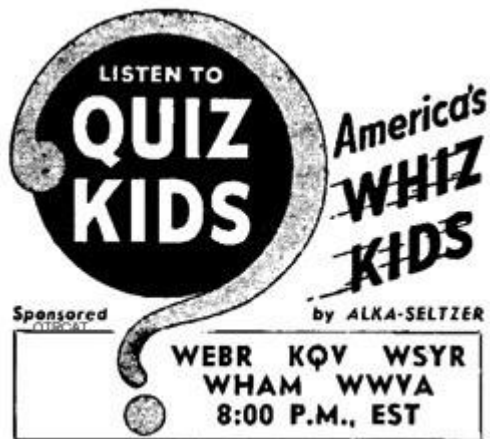


A Granco FM tuner/ converter. Plug this unit into the Phono or AUX input of an AM radio. The unit, with a dial, permits FM signal reception.

Carl K. spoke about this 1960-1962 Healthkit FM receiver. This receiver has a high build quality. Has a 6x9 speaker with a Whizzer Cone. The Whizzer cone increases the frequency response of a speaker.

Quiz Kids

Editors Note: Everything old will be new again. A recent TV show, "Are You Smarter Than a Fifth Grader?" showcased the knowledge of adults versus children. One may consider that the Quiz Kids had been "reinvited" with this show.



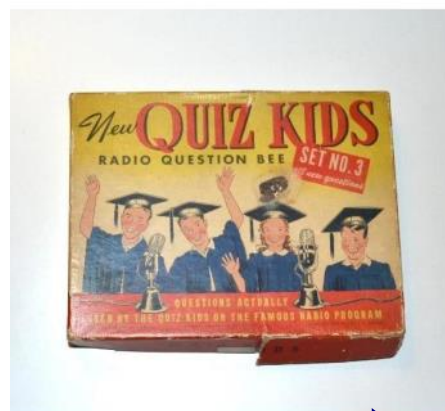
Quiz Kids is a radio and TV series originally broadcast in the 1940s and 1950s. Created by Chicago public relations and advertising man Louis G. Cowan, and originally sponsored by Alka-Seltzer, the series was first broadcast on NBC from Chicago, June 28, 1940, airing as a summer replacement show for Alec Templeton Time.

It continued on radio for the next 13 years. On television, the show was seen on NBC and CBS from July 6, 1949, to July 5, 1953, with Joe Kelly as quizmaster, and again from January 12 to September 27, 1956, with Clifton Fadiman as host.

The premise of the original show involved Kelly asking questions sent in by listeners and researched by Eliza Hickok and Rachel Stevenson. Kelly often said that he was not an intellectual, and that he could not have answered any of the questions without knowing the answer from his flash card. The answers were supplied by a panel of five children, chosen for their high IQs, strong academic interests, and appealing personalities, as well as such qualities as poise, quickness, and sense of humor. One of the first Quiz Kids was seven-year-old nature expert Gerard Darrow. For the initial premiere panel he was joined by Mary Ann Anderson, Joan Bishop, George Van Dyke Tiers and Charles Schwartz. Panelists rotated, with the three top scorers each week joined by two others the following week; they were no longer eligible to participate once they reached the age of 16.

Quiz Kids may have been the first attempt to air a quiz competition of sorts involving non-professionals. Listeners to the show would send in questions which were then researched by an adult staff to be read on-air to the panel of kids. The listeners whose questions were selected won a prize, and if the question stumped the panel they won a better prize (this was similar to the radio show *Information Please*). At some point, the prizes included televisions. Some of the champion child participants won a trip to Chicago as a prize.

One interesting point is that since the questions were obviously poorly designed, many times questions had multiple correct answers, which the kids came up with, often bewildering the poor host - something that would bewilder bad quiz bowl for decades to come.



Home Board Games were created that permitted at home play similar to the existed of the radio show.

Wearable Novelty Radios - Dick Tracy Wrist Watch

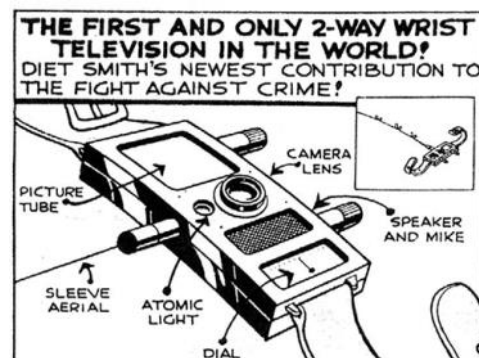
Editor's Note: Dick Tracy started as a comic strip that evolved into a radio show... and then television and movies. An iconic item within the comic strip was the radio wristwatch. The radio wrist watch, within the comic strip, was invented by a blind character known as "Brilliant". Communication with Police HQ was easily reachable. As a child, it was a dream that such a device would be commercially available some-day. Amazingly today we can make phone calls around the world from a cell phone located on our wrist. Communication has never been easier! Notably, Dick Tracy moved to a two-way wrist television. This is achievable now!

The Dick Tracy comic strip made its debut on Sunday, October 4, 1931, in the Detroit Mirror, and was distributed by the Chicago Tribune New York News Syndicate. Notably, Gould wrote and drew the strip until 1977. Various artists and writers have continued the strip's creation.

Dick Tracy had a long run on radio, from 1934 weekdays on NBC's New England stations to the ABC network in 1948. Bob Burlen was the first radio Tracy in 1934, and others heard in the role during the 1930s and 1940s were Barry Thomson, Ned Wever and Matt Crowley. The early shows all had 15-minute episodes.



On CBS, with Sterling Products as sponsor, the serial aired four times a week from February 4, 1935, to July 11, 1935, moving to Mutual from September 30, 1935, to March 24, 1937, with Bill McClintock doing the sound effects. NBC's weekday afternoon run from January 3, 1938, to April 28, 1939, had sound effects by Keene Crockett and was sponsored by Quaker Oats, which brought Dick Tracy into primetime (Saturdays at 7 pm and, briefly, Mondays at 8 pm) with 30-minute episodes from April 29, 1939, to September 30, 1939. The series returned to 15-minute episodes on the ABC Blue Network from March 15, 1943, to July 16, 1948, sponsored by Tootsie Roll, which used the music theme of "Toot Toot, Tootsie" for its 30-minute Saturday ABC series from October 6, 1945, to June 1, 1946. Sound effects on ABC were supplied by Walt McDonough and Al Finelli.



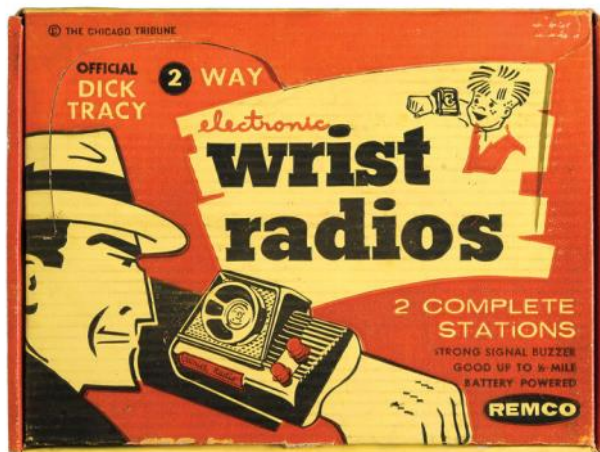
Wearable Novelty Radios—Dick Tracy Wrist Watch



Many manufactures started to make “radio watches”. The quality of these radio watches were not ideal. This watch above, sold for \$2.98 in October 1931, is simply a crystal based radio. (\$2.98 is equivalent to \$63.00 in 2025) A wearer would need to attach a wire for an antenna to this watch. An additional wire would be needed for a ground wire.

From searching on-line; other models followed...

This watch to the right was made by Remco in 1955. One may believe this was a wireless Walkie talkie radio. However, after reading the manual, each wrist radio was connected to the other with the use of two wires. The manual recommends passing the wire through a closed door. These were powered by “sound”. A user would need to speak loudly into the speaker. One-way morse code transmissions were possible if a battery was inserted into the “Master” unit. Notably, Remco later released A “Green Hornet” version of this wrist radio. Instead of black and red, it was green and orange.



Novelty Radios - Dick Tracy Wrist Watch (Continued)

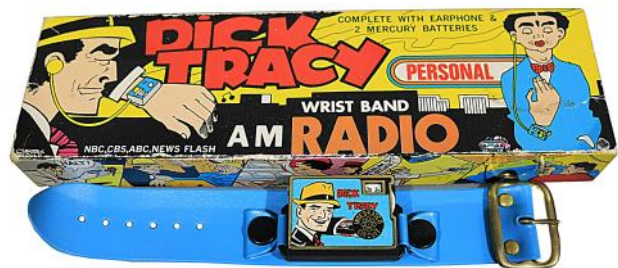
In 1961, The American Doll and Toy company released what I would consider to be a “real” Dick Tracy watch. Why is it a “real” one? 2-way wireless communication was achievable.



A user would wear the watch which contained only a microphone and speaker. (Likely the speaker was used as a microphone.) The “power pack” worn on the belt contained the transmitter, receiver, and battery. The same CB channel was used among all radios.. The user would depress the white button when it is desired to transmit. The telescope antenna, from pictures, when raised would stop at a height that was about the same level of a users neck. Maybe not considered safe to-day, but usable. One individual online stated, “The range of the transmitter was not far. Once you went out of range, you could simply yell at your friend instead.”

In 1975, a wrist watch with a built in AM radio receiver was introduced. This wrist watch used 2 mercury batteries.

The use of a single ear piece Permitted the wear to listen to AM stations. Stations were adjustable Via the tuning dial knob on the corner of the watch. From images, I do not think tuning was easily accomplished as a few small turns of the dial would cover the entire AM broadcast spectrum.



1975 DICK TRACY WATCH

Novelty Radios - Dick Tracey Wrist Watch (Continued)

With modernization of electronics, eventually came an FM radio receiver.

I would assume this was a better radio due to the length of a necessary antenna being much shorter. The antenna was likely the headphone cord.



Not a Dick Tracy branded watch... but Seiko made a huge stride in watch technology in 1982. Seiko released a watch with a 1.2 inch black and white LCD television screen. The tuner and batteries for the watch resided in an attached module, stowed within the owners pocket. The watch simply contained the screen.

Technology has however eventually made true wireless two way communication available. An Apple iWatch coupled with a watch band that has a built in camera permits instant visual and audio communication. True "world wide" operation is achievable! Chester Gould literally envisioned the future... and was accurate what the future would be.

To the right is an Apple iWatch with a 3rd party Watch band. This watch band has two internal cameras. When connected to the iWatch, video HQ video can be seen the wear and a 3rd Party the user is communicating with.

Apple iWatch with
a Wristcam™ watch band

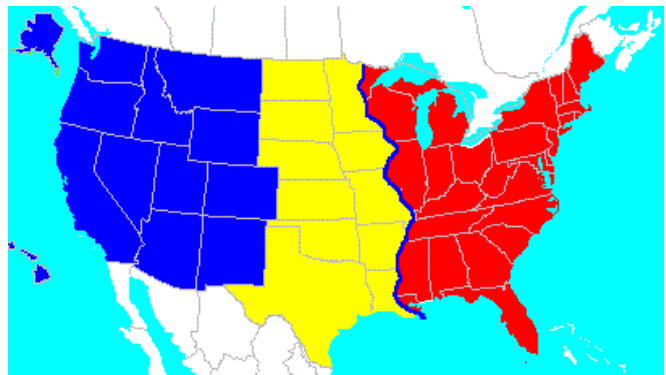




The Eiffel Tower was built for France's "Exposition Universelle" in 1889. It was to be torn down 20 years after the event. Gustave Eiffel wanted to save it by making it useful and not just a symbolic structure. A radio demonstration occurred from the tower's tip in 1898. Eiffel, seeing a potential to make the tower beneficial, made it a full-fledged radio tower. By 1908, signals from the tower reached distances of 3,500 miles. During World War 1, the Eiffel Tower permitted signal reception of Central Powers. Today there are approx. 120 antennas at the top of the tower.

Question: What does the call sign of an AM station inform you of?

Answer: Location and time of station creation can be determined. Radio stations were originally given unique 3-letter calls. These call signs were quickly depleted. Starting in 1922 radio stations were issued 4-letter call signs. Boundaries existed early on that divided CONUS into three territories. Blue had 'K' Calls. Yellow had 'W' calls between 1912—1923 when it shifted to 'K' calls after 1923. East had 'W' calls. This rules notably still exist today with slight exceptions existing.



Question for the October Newsletter: What television award show is named after a television based vacuum tube?

Radio Quote Of The Month:

“Radio... that wonderful invention by which I can reach millions of people... who fortunately can't reach me.” - Milton Berle, a stage comedian. (Possibly making a reference to the frequent hecklers that attended his comedy show.)

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