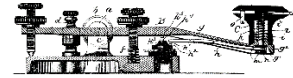




Bexar Wire

San Antonio Radio Club
W5SC



2025, No. 11

November 2025

Drawing Day!

It's here, the November 13, 2025 raffle drawing for the **Robert A. Rodriguez, K5AUW Scholarship Fundraiser!**



This is the last chance to get tickets if you buy them before the drawing at SARC Club Meeting @ Blanco BBQ: 7pm, November 13th.

Tickets are still just **\$25 each**

Amazing prizes include:

- **1st Prize:** Icom IC-7610
- **2nd Prize:** Icom IC-7300
- **3rd Prize:** Icom ID-52A

The next meeting, November 13, 2025, will be at 7 PM at Blanco BBQ, 13259 Blanco Rd, San Antonio, TX 78216, (210) 251-2602. Program: Drawing for the Robert A. Rodriguez, K5AUW, Scholarship fundraiser.

W5SC This Is AE5AS GB 73

*By Harold C. Fleischer, III AE5AS
Chairperson of the Board of Directors
San Antonio Radio Club*

I am resigning as Chairperson of the Board of Directors of the San Antonio Radio Club (SARC) effective midnight of December 31, 2025.



*Harold Fleischer,
AE5AS*

In the fall of 2015, JC Smith N5RXS called me and asked me to accept a nomination to be President of SARC. He told me (after I stopped laughing) that it would be one year as President and then one year as Chairperson of the Board of Directors. In reality, I was President for three (3) years (2016-2018), and I have been Chairperson for seven (7) Years (2019-2025). Yes, I have been in the senior leadership of SARC for ten (10) years.

There are three main reasons for resigning. The first is that I will be 78 this month (November) and do not have the physical stamina to participate in Field Day and some other ham activities anymore. I have noted other older hams reach this point, so it made my recognition of this fact easier. Hopefully, the new Chairperson of the Board of Directors will be able to participate fully in most activities. On top of that, there are some other personal interests that I want to pursue.

Second, and closely related to the first, is that SARC President Paul Gudio N5IUT has plenty of objectives for SARC that he still

(Continued on page 5)

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
11	R	N5IUT			San Antonio, TX		November 2025
TO							

Hello South Texas,

Jimmy Rives, W5JC was president of the San Antonio Radio Club in 1929 (at 21 years old) and in 1952.

His first amateur radio license, with the call letters W5JC, was issued in 1923 (at 15 years old), by the Department of Commerce, which once regulated radio, prior to the Federal Communications Commission.

In 1930, Jimmy was awarded commercial licenses for First Class Radio Telephone Operator and Radio Telegraph Operator and used those licenses to work on radio stations such as KMAC, KABC, and KGZE. In 1945 he was the ARRL South Texas Section manager. He later completed his professional career as Chief of the HQ GEEIA Field Office located at HQ USAF Security Service on the 'hill' at Kelly AFB and retired in 1971.

Jimmy helped build and maintain the San Antonio Radio Club and we remember him.

For the last ten years, Harold C. Fleischer, III AE5AS has served as both President and Chairman of the Board of Directors. He has re-written our foundational paperwork and carefully guided the San Antonio Radio Club for the last decade.

During his tenure our membership has increased, and the club is much stronger now. He is retiring as Chairman this year and I thank him for his service.

Please see the article on AE5AS's retirement in this Bexar Wire.

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Paul Guido, N5IUT, President, SARC



Bexar Wire

Published monthly by:



Paul Guido N5IUT
 President, San Antonio Radio Club
 Jimmie Neff, WJ4M
 Editor
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The due date for articles is the **Monday** before the first **Thursday** of the month

Membership – Bill Craft, KD2HIQ	As of 10/7/2025		
Paid 133	New Members for 2025		
Free / Mil 6	First	Last	Call
Family Members 21	Neil	Richardson	
Free / RF 16	Don	Stirling	N7BDP
Free / VE 24	Kevin	Crawford	KD5MAD
ARRL Members 93			
	J.Glynn	Evans	KF5YQV
Total Membership 198			

POTA: When scheduled, information is published via the club’s Groups.IO and Facebook account.

Fox Hunt – Steve Ortiz – KJ5HIH – Next event is October 25, 2025 from 9 to 11 AM at McAllister Park. Meet at the Optimist Pavilion.

Newsletter Editor – Jimmie Neff – Newsletter distributed October 8, 2025. Contact Jimmy if you want to contribute an article for publication. Deadline is the Monday before the monthly meeting.

Field Day – Jon April: No report.

Finance and Review – Previously completed.

JOTA – John April: Event will occur October 18, 2025 from 9 AM to 5 PM at McGimsey Scout Park (<https://w5sc.org/jota-1/>). Volunteers are welcome. To participate, volunteers must complete required Youth Protection training (<https://www.scouting.org/training/youth-protection/>).

Centennial Committee – Tom O’Brien AB5XZ – Memorabilia available.

Radio Fiesta – Aubrey Mason – No report.

VE Team – Benny Absent. Martinez, NU5P: Those testing will need to obtain their FRN. normally in advance. But, if the government shutdown is still in effect when we offer the next testing session, skip the FRN application and take the test. You can get the FRN later, after the FAA opens again.

Testing opportunities:

SARC tests are at the Leon Valley library 12:00
 6425 Evers Rd
 Leon Valley, TX 78238

Oct 25 – 12:00 – Leon Valley Fire Station
 Dec 20 – 12:00

Silent Key Committee – Rodney Brown, AA5RB – Equipment available for purchase. Contact Rodney for more information. At the most recent tailgate sale, we sold a bit more than \$1000 worth of equipment.

Executive – No report

Election Committee – Paul Guido, N5IUT – Vice President position is vacant as is another Board of Directors position. Board only meets twice per year, so low demand on your time. Elections for 2026 board members is next month. If interested in a position, contact Paul.

Scholarship Committee – Jon April, KI5CSK: This year, we will raffle Icom radios. 3 prizes. 1st: IC-7610, 2nd IC-7300, 3rd ID-52A. Tickets on sale now for \$25 each. Maximum tickets to sell: 400. This will fund two \$1,000 college scholarships. Drawing for prizes will be at the November, 2025 general membership meeting. Time is running short, and we still need to sell another 200+ tickets to break even, paying for the scholarship and the prizes. Tickets can be purchased in person from Jon or online, where we will mail them to you.

Old Business (Motions carried over from previous meetings) – None.

New Business – None

Announcements

- Please support ARRL’s efforts to get legislation passed to protect hams from HOA restrictions on antennas.
- Scammers are using publicly-available information from Facebook to pretend to be a legitimate ham radio operator to convince other hams to send money for purchases of equipment. People send the money, not realizing they are being scammed, and the person scammed. To prevent this, make your account and profile private. Additionally, never use Zelle for such transactions. Only use PayPal’s Goods and Services option, not the Friends and Family option. With the Goods and Services option, you can get your money back from fraudulent purchases. With the Friends and Family option, you have no protection. Never use Friends and Family option.
- Direct Tool store open in San Marcos at the Tanger Outlet Mall. They sell factory-reconditioned Ryobi tools and even small generators.
- Joint Christmas party with AARO will be at Blanco BBQ. Everyone is invited.

Meeting Adjourned @ 7:36 PM

Harold Fleischer Resignation (Continued)

wants to accomplish such that he is not looking for a replacement and subsequent immediate promotion to Chairperson of the Board of Directors. I am fine with that, but I don’t want to wait for years for him to be ready to be Chairperson of the Board of Directors.

Third, I believe leadership in organizations needs to be turned over from time to time. Officers, Directors, and Committee Chairpersons can get too comfortable and blind to new ideas or opportunities. Hence, leadership changes are needed to permit new ideas to erupt. I did a lot of things different as President as compared to my predecessor. Bob Rodriguez K5AUW was the Chairperson of the Board of Directors and my how-to-be-President Elmer. Hopefully, I kept and improved most of the good things that he did and did not break too many things. However, I know I did several things differently. Rosendo Guzman N5YBG replaced me as President, and I was his how-to-be-President Elmer. Rosendo changed Radio Fiesta to a

two-day format and started the Robert A. Rodriguez K5AUW Scholarship and supporting raffle, while continuing most things that I had underway. Paul N5IUT as Rosendo N5YBG replacement has put life in fox hunting, POTA, and Winter Field Day while continuing most of the things that Rosendo and I had underway. This is a perfect example of why I believe that leadership changes can be beneficial to organizations. Someday, Paul’s replacement will bring SARC even other positive changes.

My experiences as President and Chairperson have not been uniformly great, but overall, they have been very good. I got to know a lot of really good people who are hams that I don’t think I would have gotten to know that well otherwise. A blessing. I learned a lot about the ham community, activities, and radio communications. A blessing. I am a true believer that we are all Elmers to each other on some subject. I know that a lot of the members of the Board of Directors are Elmers to me. All my Elmers are a blessing.

I have gone farther in the ham community because I have been in a leadership role in SARC.

Partly, I am going to remain a member because the dues are affordable, but mostly because I like the people in SARC. I plan to do various activities. I may even make another presentation or two.

I am not tearing up my license. In fact, my 10-year license renewal is coming up on January 30, 2026, and I intend to renew. I am going to remain a member of SARC.

73, AE5AS



It's time to renew your membership.

The membership page on the website has been updated for 2026. Membership Renewals before January 13, 2026 get the discounted rate of \$12.00. The new members rate is \$15.00 and is prorated after April.

The membership application form has been updated for 2026 for those who prefer to mail in their dues. ([Application](#))

Using the online payment is our preferred method of renewals or new memberships. (<https://w5sc.org/membership/>)

Bill Craft, KD2HIQ
Membership Committee

The Only US AM Radio Station to Broadcast With 500,000 Watts (Jim Neff, WJ4M)

An Air Force brat, I naturally had to follow my father wherever the service sent him. Therefore, I spent my high school years, all 4 of them, in Dayton, Ohio. Dad was assigned to Headquarters Air Force Logistics Command at Wright-Patterson Air Force Base. While there, I often listened to the big, clear-channel radio station in Cincinnati, WLW. At that time it was still part of the Crosley Broadcasting Corporation. The station has a history that is intertwined with ham radio, and the distinction of the only US broadcasting station to ever broadcast with 500,000 watts! My friend, Royce Bell, KX7Q, put me on to this story. You can see a YouTube video about it at https://youtu.be/CbHjcwloTiY. The following is excerpted from a longer, historical article in Wikipedia

WLW (700 AM) is a commercial news/talk radio station licensed to Cincinnati, Ohio. Owned by iHeartMedia, WLW is a clear-channel station, often identifying itself as "The Big One". Its studios are located in Sycamore Township (with a Cincinnati address).

WLW operates with 50,000 watts around the clock. The transmitter site features a distinctive diamond-shaped Blaw-Knox tower in nearby Mason. Its daytime signal provides at least secondary coverage to almost all of Ohio and Indiana, and much of central Kentucky. It is heard at city-grade strength as far as Indianapolis, Indiana; Lexington, Kentucky; and Columbus, Ohio, with secondary coverage as far as Louisville and the outer suburbs of Cleveland and Detroit. At night, with a good radio, it can be heard in much of North America.

WLW is a primary entry point station in the Emergency Alert System for Southwest Ohio, Kentucky and Eastern Indiana. Besides its main analog transmission, its programming is simulcast on 99-watt FM translator W233BG on 94.5 MHz and on an HD digital subchannel of co-owned 107.1 MHz WKFS.



Powell Crosley Jr.

Launched by industrialist Powell Crosley Jr., WLW became the flagship station of the Crosley Broadcasting Corporation, later a part of Avco. One of four charter affiliates of the Mutual Broadcasting System, WLW holds the distinction of being the only AM radio station authorized by the Federal Communications Commission (FCC) to broadcast with a power of 500,000 watts, which happened in the 1930s.

WLW was the outgrowth of an interest in radio by Powell Crosley Jr., although information about his earliest activities is limited. Crosley recounted that his introduction to radio occurred on February 22, 1921, when he took his son to the local Precision Equipment Company store to investigate purchasing a receiver. He was shocked to find that a high-end receiver would cost US\$135 (equivalent to \$2379.88 in 2024), and after assembling his own receiver from parts, he realized that commercial mass production could be done at much lower prices. Starting with individual parts, then moving on to complete receivers, in the 1920s the Crosley Radio Corporation was a leading manufacturer of inexpensive sets, and Powell Crosley became known as "the Henry Ford of radio".



The Crosley Fiver



Crosley Automobile

Crosley was also an early experimenter with making radio transmissions. Most accounts say he began in July 1921, using a 20-watt set located in an upstairs billiard table room, repeatedly playing a phonograph record of "[Song of India](#)", while asking local amateur radio enthusiasts to call if they heard his signals. In 1921 the Crosley Manufacturing Company was issued two radio station licenses: one for a standard amateur station, 8CR, located at 5723 Davey Avenue,^{[6]: 157}^[Note 1] which was Crosley's [College Hill](#) home, and the other for an Experimental station, 8XAA, located at the company's Blue Rock Street factory building in Northside.^{[7]: 3}^[Note 2]



Crosley and Early Transmitter

WLW

Initially there were no formal standards for radio stations making broadcasts for the general public, and a variety of stations, most operating under Experimental or Amateur station licenses, conducted broadcasts on a regular schedule. On December 1, 1921, the U.S. Department of Commerce, which regulated radio at this time, adopted the first regulation formally establishing a broadcasting station category, which set aside the wavelength of 360 meters (833 kHz) for entertainment broadcasts, and 485 meters (619 kHz) for market and weather reports.^[8]

The Precision Equipment Company was the first in Cincinnati to receive one of the new broadcasting station licenses, when its experimental station, 8XB, was relicensed as [WMH](#) on December 30, 1921. The Crosley Manufacturing Company also applied for one of the new licenses, which was granted on March 2, 1922, for operation on the 360-meter "entertainment" wavelength, and issued the randomly assigned call letters of WLW.^[9]



1921 Crosley "Harko" Crystal Set

WLW held its debut broadcast on March 23, 1922 beginning at 7:15 PM. Crosley brand "Harko" receivers were available for purchase to listen to the programs.^[10]

Although the transmitter power was a fairly modest 50 watts, station publicity boldly predicted that although previously only the smaller type of sending apparatus has been employed in Cincinnati, The equipment of the Crosley Manufacturing Company is of such great power that the concert emanating from Cincinnati will be heard as far as a distant point in Canada; as far east as the Atlantic Ocean; west as far as the Rocky Mountains, and south to the southern-

most tip of the Florida Keys, and possibly to ships in the Gulf of Mexico! And that this inaugural concert will put Cincinnati 'on the map' of the radio world.^[11]

The single shared entertainment wavelength of 360 meters meant that stations within a given region had to make timesharing agreements to assign operating timeslots. On August 7, 1922, WLW's programs were scheduled from 1:00 p.m. to 3:00 pm, while WMH's ran from 8:15 p.m. to 10:00 pm.^[12] Crosley was a fanatic about the new broadcasting technology, and continually increased his station's capability. The power increased to 500 watts in September 1922, and to 1,000 watts in May 1924.

In 1923 Crosley bought the Precision Equipment Company, and in January shut down WMH's operations. Precision held the rights to use the valuable Armstrong regeneration patent, and was technically the surviving company in the merger, and was subsequently renamed the Crosley Radio Company.^{[13][14]}

In May 1923 the Department of Commerce set aside a band of "Class B" frequencies reserved for stations that had quality equipment and programming, and the Cincinnati region was assigned exclusive use of 970 kHz.^[15] In the summer WLW began operating on this new frequency, sharing time with another Cincinnati station, [WSAI](#).^[16] In May 1924 a third Class B station was established in Cincinnati, WFBW (now [WKRC](#)), which the next month revived the WMH call letters. WLW was unhappy with having to split time with two other stations, so in June 1924 government regulators moved WLW to 710 kHz, sharing time with WBAV (now [WTVN](#)) in Columbus.^{[17]:8}

At the Third National Radio Conference, held in October 1924, the [Radio Corporation of America's](#) (RCA) vice president and general manager, [David Sarnoff](#), announced that his company planned to embark on the construction of a 50,000-watt station for New York City. At this time 1,000 watts was the maximum permitted, so this brought up fears by smaller stations that a group of powerful stations would monopolize the airwaves.^[18] However, Powel Crosley fully endorsed the idea, stating: "Our idea of the solution to the static problem is increase in power. We talk today of 5,000 watts being superpower, when we all know that five years from now certain broadcasting stations will be using from 50 to 200 kilowatts. When that day comes, there will be no more static."^[19]



The WLW 5,000 watt WE 5C transmitter with operator Joe Whitehouse (from The Radio Historian)

In late 1924 Western Electric began selling radio transmitters capable of operating at 5,000 watts,^[20] but the Commerce Department, wary of the high-powered sets overwhelming local receivers, did not immediately allow stations to use the full power. Instead stations could start operating with up to 1,500 watts, then, only if approved by the region's Radio Supervisor, increase powers in successive 500-watt steps, while ensuring that it was not causing excessive interference.^[21] WLW ordered one of the 5,000-watt-capable Western Electric transmitters, originally hoping to have it in operation by the end of December. In addition, a new remote transmitter site was constructed at Har-

rison, Ohio, located away from the city to limit the possibility of the station's signals overwhelming local receivers.^[22] On January 27, 1925, WLW began using its 5,000-watt-capable transmitter, although not yet at full power.^[23]

The Commerce Department's cautious approach toward power increases was based on the assumption that station transmitters were located in heavily populated areas. However, in May 1925 it recognized that WLW's Harrison and WSAI's Mason, Ohio transmitter sites were both far enough from population centers that they could immediately begin operating as the first two stations in the nation transmitting with the full 5,000 watts.^{[24][25]} A *Cincinnati Post* writer investigated the effect of WSAI and WLW's May 11 introduction of the use of 5,000 watts, and found that despite claims that their "superpower broadcasting" would eliminate static within 500 miles,

it was only "a start in the right direction". Listeners reported that the stations now sounded about twice as strong, and also noted that [KDKA](#) in Pittsburgh's 10,000 watts was even better.^[26]

Shortly after WLW began operating with 5,000 watts, the major radio manufacturers began work on producing more powerful transmitters. Development was led by [General Electric](#), and in July 1925 that company's [WGY](#) in Schenectady, New York began conducting tests of a 50,000-watt transmitter,^{[27][28]} which began regular usage later that year.^[29]

"The Nation's Station"

In October 1928 WLW became the fourth station in the United States to operate with 50,000 watts.^[30]

By the summer of 1928, in addition to WGY, WEAf (now [WFAN](#)) in New York City and KDKA in Pittsburgh, Pennsylvania were also broadcasting with 50,000 watts,^[31] and WLW was making plans to join them.

In May Crosley purchased WSAI, and began to consolidate the two station's operations. This included WLW moving its transmitter site from Harrison to sharing WSAI's facility at Mason. There is where WLW's 50,000-watt Western Electric transmitter would be installed, with its completion initially hoped to be by September.^[32] It was actually October 29, 1928, when WLW became the fourth member of the select group of U.S. stations operating with 50,000 watts. However, at the dedication ceremonies the station proclaimed that, because WLW was more centrally located than the other 50,000 watt stations, it was "America's *first* really national Broadcasting station",^[30] with a signal that "cut through static like a knife".^[33] In early 1929 Crosley company advertising began referring to WLW using the slogan "The Nation's Station". The station even branched out into international service, including a weekly program in Spanish which was intended for listeners in Cuba.^[34]



Western Electric's first 550KW transmitter, model 7A, was installed at WLW in 1928 (from The Radio Historian)

In 1926, there had been a temporary suspension of government regulation of radio due to a court ruling that the Commerce Department had overstepped its legal authority. This eventually resulted in the formation of the [Federal Radio Commission](#) (FRC), which as part of its re-establishment of control moved WLW to 700 kHz in June 1927, the frequency on which it has operated ever since.^[35] In November 1928, under the provisions of the FRC's [General Order 40](#), 700 kHz was one of 40 frequencies designated as "clear channels", and WLW was assigned exclusive use of this frequency within the United States and Canada.



One of the five new studios comprising the eighth floor of the new Crosley Radio Company building (1930)



The Crosley Building in [Camp Washington, Cincinnati](#), built in 1930, is listed on the National Register of Historic Places.

At 50 kilowatts, WLW was heard easily over a wide area from New York to Florida, but Crosley still was not satisfied. In early 1933, it was announced that RCA had been awarded a contract to oversee the construction of a 500,000-watt transmitter, "the largest broadcasting transmitter in the world", although initially it would only be operated during the hours of 1 to 6 am.^[36]

500,000-watt "superpower" operation



The 1934 500KW plant. Note the cooling pond with sprayers for cooling the transmitter (from thheRadio Historian)

WLW debuted its 500,000 watt transmitter on May 2, 1934.^[37]

Crosley obtained a construction permit from the [Federal Radio Commission](#) (FRC) for the addition of a 500-kilowatt transmitter amplifier at the Mason complex, and spent some \$500,000 (\$12.1 million in 2024^[38]) constructing the equipment and facilities for the new amplifier and installation of an 800-foot (240-meter) tall antenna.

In January 1934, WLW began broadcasting with 500,000 watts after midnight under the experimental call sign W8XO. In April 1934 the station was authorized to operate at 500,000 watts during regular hours using the WLW call letters. On May 2, 1934, President [Franklin D. Roosevelt](#) ceremonially pressed the same golden telegraph key that Wilson had used to open the Panama Canal, officially launching WLW's 500-kilowatt signal.^[39]

Wilson had used to open the Panama Canal,



The 500KW transmitter during installation (from The Radio Historian)

ued to operate under special temporary authority that had to be renewed every six months; each renewal brought complaints about interference, and undue domination of the market by the high-powered station.

In September 1934, WLW was one of the founding members of the [Mutual Broadcasting System](#), although it withdrew as a primary participant and became a regular affiliate two years later.^[41] The station found that with its tremendous signal it could independently compete with the national radio networks, with a rate card comparable to what the major networks charged. One result was that by 1936 there was increasing pressure on the FCC to start allowing additional clear channel stations to operate with 500,000 watts, and in October there were a reported 14 outstanding applicants to join the "superpower" ranks.^[42]

In 1928 the FRC's [General Order 40](#) had established the basic structure of the AM broadcast band in the United States, grouping transmitting frequencies into three major categories: "local", limited to 100 watts, "regional", with up to 1,000 watts, and "clear",^[43] with an unspecified limit that was generally capped at 50,000 watts the next month by General Order 42.^[44] Over time the maximum daytime powers were increased to 250 watts for local stations, and 5,000 watts for regional ones.

In June 1938 the FCC held a series of hearings on the future of the AM band, including power levels.^[45] An important factor in their deliberations was the "[Wheeler resolution](#)". On June 13, 1938, the U.S. Senate adopted resolution 294, sponsored by [Burton K. Wheeler](#) (D-Montana), which stated that it was the "sense of the Senate... that the Federal Communications Commission should not adopt or promulgate rules to permit or otherwise allow any station operating on a frequency in the standard broadcast band (550 to 1600 kilocycles) to operate on a regular or other basis with power in excess of 50 kilowatts".^[46] Wheeler, an avid anti-monopolist who wanted to protect the smaller stations, was also concerned that domination of the airwaves by high-powered stations could lead to a dictator like Mussolini, Hitler or Stalin, who had each used control of radio to support their rise to power.^[47]

As the first station in the world to broadcast at this strength, WLW received numerous complaints from around the United States and Canada that it was interfering with other stations, most notably from [CFRB](#), then on 690 kHz, in [Toronto, Ontario](#). In December 1934, WLW was instructed to cut back to 50 kilowatts at night until it had eliminated the interference.^[40] The station began construction of two shorter towers 1,850 feet (560 m) southwest from the main tower to create a directional antenna, which successfully reduced the signal broadcast towards Canada. With these antenna towers in place, full-time broadcasting at 500 kilowatts resumed in early 1935. However, WLW contin-

This resolution, unlike a law, was not binding on the FCC; however it was seen as having an important influence on the outcome of its hearings.^[48] In early 1939 the FCC announced its new regulations, which narrowed the differences between low and high-powered stations. Local stations could now use up to 250 watts at night, and regional 5,000 watts. On the other hand, in language that largely echoed the financial arguments of the Wheeler resolution, clear channel stations were still limited to 50,000 watts, and WLW's temporary authorization to use 500,000 watts, except experimentally during early morning hours, was terminated.^[49]

Return to 50,000 watts

Beginning in 1939, WLW used the overnight hours to transmit READO [radiofax](#) newspapers. However, the system was unable to compete with standard newspaper delivery, and was shut down a few years later.^[51] On March 1, 1939, WLW resumed operations at 50,000 watts.^[52] The station had unsuccessfully attempted to reverse the decision in the courts, and now had to shut down the huge amplifiers, except for brief, experimental night periods as W8XO.^[53] Because of the impending war, and the possible need for national broadcasting in an emergency, the W8XO experimental license for 500 kilowatts remained in effect until December 29, 1942.

In the 1930s, WLW occupied the entire 48th floor of [Carew Tower](#). In 1942, the station moved its studios into the [Crosley Square](#) building, a converted [Elks](#) Lodge No. 5 in downtown Cincinnati.^[54] WLW's sister television station, [WLWT](#) (then branded WLW-T), was founded in the same building. In 1955, WLW and WLWT became the first radio and television station to own a [weather radar](#).^[55]

The August 1941 adoption of the Federal Communications Commission's "duopoly" rule restricted licensees from operating more than one radio station in a given market.^[57] At this time the Crosley Corporation owned both WLW and WSAI, so to conform with the new regulation in 1944 WSAI was sold to Marshall Field. The next year Crosley sold WLW to the Aviation Corporation of the Americas ([Avco](#)), earning a handsome return on his original investment of a quarter-century earlier.^[58] The Crosley name was so well respected that Avco retained it as the name of its broadcast division until 1968. From the 1950s until the 1970s, broadcasts for WLW were moved across Elm street to the COMEX building, where people could watch radio broadcasts from the sidewalk through plate glass windows.^[59]

By 1962 there were only 13 unduplicated clear channel frequencies left in the United States, and the FCC was investigating whether to "break up" these remaining frequencies by adding secondary stations. In response the U.S. House of Representatives passed House Resolution 714, which gave support to having the frequencies remain assigned exclusively to a single station, and a number of the stations, calling themselves the "Clear Channel Broadcasting Service", applied for higher powers. This included WLW, which submitted an application to operate with 750 kilowatts.^[60] However, the FCC denied these applications and went ahead with the additional stations, located mostly in under-served western states.^[61]

Despite no longer being the sole occupant of 700 kHz, WLW's signal still sometimes spanned impressive distances, and in 1985 overnight host [Dale Sommers](#) received a call from a listener in Hawaii. Reception at the United States Air Force's Thule Air Base in Greenland (4,235 km) has been reported as sufficiently good for routine listening with an ordinary commercial AM-FM radio receiver at night during the Arctic winter.

Avco began exiting broadcasting in 1975. WLW was one of the last properties to be sold in 1976. From that point until the 1990s, WLW had different owners, including Queen City Communications, Mariner Communications, Seven Hills Broadcasting and [Jacor Communications](#), before Jacor merged with Clear Channel Communications (now [iHeartMedia](#)). The Clear Channel merger made WLW a sister station to Cincinnati's other 50,000-watt "flamethrower", [WCKY](#). The latter station had been licensed to [Covington, Kentucky](#) (hence its callsign), for much of the early

part of its history, a quirk that allowed it to get a clear-channel designation despite WLW's presence.

XM Radio simulcast

From March 1, 2006, to March 6, 2009, WLW was simulcast on [XM Satellite Radio](#) channel 173, expanding the station coverage to the entire continental United States. The station was placed on the satellites by then Clear Channel programming executive [Sean Compton](#) (brother of WLW overnight personality Steve Sommers, whose program continues to be broadcast on the platform), who claimed WLW was his favorite radio station. Compton left the company in 2008 for the [Tribune Company](#), and shortly thereafter WLW was dropped from XM.

Shortwave operations

In 1925 Crosley received a license for an experimental shortwave station, 8XAL (W8XAL after 1928).^[69] In August 1926 the company announced that it was planning to establish a shortwave link to relay programs from Cincinnati for retransmission by a newly acquired station, [WARC](#), located near Boston, Massachusetts,^[70] however this link was never implemented.

In 1926 8XAL was on air with 100 watts, which increased to 10,000 watts in 1931. In 1940 the station was relicensed as a commercial station, with the callsign WLWO. In early 1941 it was operating with 75 kilowatts, with a program service particularly aimed at South America, and was known as "The Inter-Nation Station".^[71]

The station transmitted on 5.69 MHz from 1924 to 1929^{[72]:26} and 6.06 MHz (June 1929 – November 1, 1942).^{[73]:71,182} In 1941, operations were described as "the only international station in the United States authorized to operate on each of the six short-wave bands with unlimited frequencies and unlimited time. WLWO's assigned frequencies are: 6.08, 9.59, 11.71, 15.25, 17.80 and 21.65 megs", with programs in English, Spanish and Portuguese.^[71] In 1943, Crosley engineers built the U.S. government's [Bethany shortwave transmitter site](#),^[74] which was later taken over by the [Voice of America](#).

Mason, Ohio transmitter site



WLW's diamond-shaped Blaw-Knox radio tower has been in use since 1934

WLW's distinctive diamond-shaped [antenna](#) is featured on the official seal of the [city of Mason](#). Designed and erected by [Blaw-Knox Tower](#) company in 1934, it was the second of its type to be built, after [WSM](#)'s in Nashville, Tennessee, and is one of eight still operational in the United States.

WLW's 500,000-watt "RCA 1" transmitter was in operation between 1934 and 1939, and was the highest power ever used in the United States for public, domestic radio broadcasting. It was designed as an amplifier of the regular 50 kW transmitter. It operated in [class C](#) with high-level [plate](#) modulation, and required two dedicated 33 kilovolt [electrical substation](#) lines and a large cooling pond complete with spray fountains. It operated with a power input of about 750 kW (plus another 400 kW of audio for the modulator) to produce 500 kW. Even after 1939, when regular WLW programming was prohibited from operating with more than 50,000 watts, the station continued post-midnight high-powered operation as experimental station W8XO, which helped to greatly improve the RCA 1 transmitter's power and reliability. By the end

of World War II, it was capable of producing one million watts, and it "loafed along" at 600 kW.^[53]



WLW's 500,000-watt authorization included the requirement that the station limit its nighttime skywave signal toward Canada to the equivalent of 50,000 watts, which led to the construction of two shorter towers, electrically a quarter wavelength in height and separated by a half wavelength, that were located 1,850 feet (560 m) southwest of the main tower. The two shorter towers were fed using trolley car wire to produce an 85 kW signal at 96 degrees out-of-phase with the principal signal, which produced a null in the opposite direction from the main tower.^[75]

Many reports have surfaced over the years, from those who lived near the 500-kilowatt transmitter, of power fluctuations. Residents would see their lights flicker in time to the [modulation peaks](#) of the transmitter. It was widely reported that the signal was so overpowering that some people picked up WLW radio on the metal coils of mattresses and boxed bedsprings,^[76] but those reports have been assessed as possible [urban legends](#).^[77] [Arcing](#) often occurred near the transmission site.^[78]

Even though WLW was now using ten times the power, listeners subjectively said it only sounded two or three times louder than before. One important factor affecting long-distance nighttime coverage was that the power upgrade included a switch from a horizontal "flatop" antenna to a vertical tower, which significantly helped the local "groundwave" coverage, at the expense of reducing the increase in distant "skywave" signals. Even so, one listener remembered being able to easily pick up WLW's nighttime signal 1,100 miles (1,800 km) away in Denver, Colorado.^[79] Another issue was that some of the earliest towers like WLW's were being built too tall, which at night caused cancellation issues where the groundwave and skywave signals interfered with each other causing excessive fading. Because of this, WLW's tower, originally at 831 feet (253 m), was reduced to 747 feet (228 m).^[80]

In October 1940 a suspicious fire broke out in the WLWO tuning house,^[81] which led to an increase in security, and in early 1941 it was reported that "Today you would have little chance of getting close enough to the equipment to do any damage, for out at Mason, Ohio, where the transmitters of WLW and WLWO are located, a special guardhouse seventy-five feet (23 meters) high has been built, a high metal fence encloses the grounds which are patrolled by a staff of twelve guards twenty-four hours out of each day, and a battery of floodlights illuminates every foot of the grounds day and night."^[71]

The station's original 50 kW 1927 Western Electric 7a transmitter was reactivated on the night of December 31, 1999, when it was powered up and used from 10:45 p.m. until 12:15 a.m. at [the start](#) of the next year. Chief Engineer Paul Jellison replaced a bad vacuum tube, and successfully operated the water-cooled equipment, which he noted was quieter than the newer transmitters cooled by air blowers. The transmitter output was fed through a modern Orban 9100 audio processor, and Jellison reported that it "sounded fine and the news department mentioned the fact that we were operating on it in their news casts".^[82]

Editor Note: It is interesting how a modest, ham-related operation became a broadcast giant. Amateurs were deeply involved in the birth of broadcast radio. They had the skills needed. The Army operates a 500KW transmitter at its American Forces Radio and TV location, callsign AFN, in Frankfurt, Germany. The power was needed to compete with European stations running a million watts. The Russians complained, so the station went directional, using a three-tower array beaming mostly north and south. I remember sitting in a friend's car in Madrid Spain where my father was stationed listening to the World Series broadcast on AFN, Germany in about 1959.



Volunteer Examiners at Work



From Bennie Martinez, NU5P, VE Coordinator



Oct 25 12:00 Leon Valley Fire Station. Radio Winner, Neil Richardson.

Register at HamTest@w5sc.org
Other info at W5SC.org click "Getting Started" then "Testing."

Bennie Martinez, NU5P, awards Neil Richardson the cray Lester HT for passing technician at the October session

Some tidbits – by Bill Craft, KD2HIQ

Looking at old club newsletters, I found that the name has changed over the years. In 1955 it was called Gutter-Dope, in 1958 it was The Exciter, the 60's the name changed to San Antonio Radio Club News then in the 70's it once again changed to Bull-etin. Sometime in the late 80's it changed to the Bexar Wire. Anyone know when it changed to the Bexar Wire?

Also, I found that back in the 70's the Davis Observatory sought to hire someone from the club to help with several projects they have that involve electronics, and amateur radio. They sought out the club because of our group of extremely talented and knowledgeable members.

We are going to add newsletter from the 50's through the 70's to the DLARC(Digital Library of Amateur Radio & Communications) Newsletter Collection at the Internet Archive.

By donating the old newsletters to the DLARC, they will be scanned, indexed and posted on DLARC website for anyone to read at no cost to us. That represents hundreds of dollars and saved us from paying to scanning them ourselves.

Check out the link on our Newsletter page, to go to the DLARC archive. You will find lots of interesting things beside SARC



SARC has had a Groups.io. Its name is saradioclub.

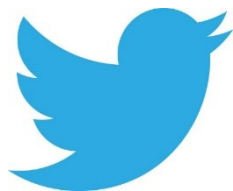
If you haven't signed up for group.io, you should. Groups.io is our primary email messaging method to all club members. It is FREE for all members.

Several members have asked where are the notices, schedules and codes for Zoom meetings?

1. The groups.io calendar has a schedule of Zoom meetings and access codes.
2. The calendar can be accessed directly from the club web site <https://w5sc.org/events-calendar/> NOTE: it is the same groups.io calendar.

The saradioclub Group.io is being used to publicize SARC business meetings. It can be used for other things like promotion of VEC testing and classes. Members of the saradioclub Group.io can and have asked each other technical questions or sought assistance.

The saradioclub Group.io is a closed group. To become a member, go to saradioclub.groups.io. (You may need to have a Groups.io account.) You will then need to select *Apply for membership in this group*. This generates a message. SARC members can expect approval to join the saradioclub Group.io in probably less than 24 hours.



Reminder: there are two active X (Twitter) accounts for the San Antonio Radio Club. They are @SARadioClub and @ARadioFiesta.

The @SARadioClub is being used to publicize SARC meetings. It can be used for other things like promotion of VEC testing and classes.

When work again commences the @ARadioFiesta will be used.

SARC Facebook



There is a San Antonio Radio Club – SARC (@saradioclub) Facebook Page.

The newsletter editor is making posts about SARC meetings and other activities. Any Officer, Committee Chairperson, or member who believes that they have information that should be posted to this page should contact the newsletter editor using the contact information for the newsletter editor on page 2 of this newsletter.

SARC members are encouraged to follow this Facebook Pa

SARC SLACK



There is a San Antonio Radio Club Slack team – w5sc.slack.com.

Slack teams are meant to foster communication between team members. Paul Guido, N5IUT, has established the w5sc.slack.com team for SARC. He has also established some channels. Think of the channels as topical areas.

To join send an email to Paul Guido, N5IUT, at radioteacher@gmail.com. In actuality, any team member already a part of the w5sc.slack.com can invite you, but Paul is known to be on it.

Radio Fiesta 2026

Radio Fiesta 2025 will be at Schertz Civic Center on June 6-7. Get a table and bring stuff to sell or just come in and browse the deals, listen to the presentations and swap tales. Hope to see you there!

Field Day 2025

Field Day 2025 was June 28 – 29 at the City of Shavano Park city hall for the twenty second year. Start planning for FD 2026, where SARC proves they are an eating group with a radio problem.

Amateur Radio License Classes

For more information, check the club web page, W5SC.org

SARC has a website:

w5sc.org

Webmaster: Bill Craft KD2HIQ
Billc851@gmail.com

License Testing Dates for 2025

SARC does all of its licensing testing as a part of ARRL Volunteer Examiner Coordinator (VEC) organization so all of the Volunteer Examiners in SARC are duly authorized Volunteer Examiners of ARRL's VEC.

Register at HamTest@w5sc.org

Other info at W5SC.org click "Getting Started" then "Testing." If not otherwise noted, testing site is Leon Valley Library, 6425 Evers Rd, Leon Valley, TX 78238

Scheduled for 2025

June 7 Radio Fiesta 1:30

June 29 Field day

Aug 23 12:00

Oct 25 12:00 Leon Valley Fire Station

Dec 20 12:00

SARC Meeting Dates for 2025

- January 9, 2025
- February 13, 2025
- March 13, 2025
- April 10, 2025
- May 8, 2025
- June 12, 2025
- July 10, 2025
- August 14, 2025
- September 11, 2025
- October 9, 2025
- November 13, 2025
- December – No meeting

Meetings are normally held at Blanco BBQ, 13259 Blanco Rd, San Antonio, TX 78216 at 7:00 p. m. Room is available at 6:00 p. m. for supper

Emergency Communications

If you are interested in emergency communications, contact:
 Ned Lee, KG5US RACES Bexar County
 210-344-3481/210-391-8258

The ARES EC for Bexar County is JC Smith,
 N5RXS-
 210-522-6167