



ARCI NEWS

www.antique-radios.org

Affiliated AWA
Antique Wireless Association 

Volume 37, Issue 1
February 2018



HAPPY VALENTINE'S DAY!!
REMEMBER TO RENEW YOUR ARCI MEMBERSHP!

UPCOMING INDOOR MEET

FEBRUARY 25, 2018

AMERICAN LEGION HALL
570 South Gary Avenue, Carol Stream, IL

February 25, 2018 • 7AM - 11AM

Peoples' Choice Contest: Awards For 1st, 2nd, 3rd Place
Business Meeting 9:30am

Boy Scout Pancake Breakfast / Free Coffee, Juice & Cookies
50/50 Cash Drawing Raffle



2018 ARCI MEET SCHEDULE

February 25, 2018	7AM-9:30AM Indoor Swap Meet People's Choice Contest, Officers' Meeting 9AM	American Legion Hall Carol Stream, IL (See Map)
April 29, 2018	7AM-11AM Outdoor Swap Meet Inside Business Meeting 9:30AM	American Legion Hall Carol Stream, IL (See Map)
June 17, 2018	Outdoor - Gates Open 7AM Combined Meet With 6-Meter Club of Chicago	DuPage County Fairgrounds Wheaton, IL (See Advance Ticket Form & Map)
August 24-25, 2018	RADIOFEST	Medinah Shriners/Addison, IL
October 7, 2018	7AM-11AM Outdoor Swap Meet Business Mtg./Officer Election 10AM	American Legion Hall Carol Stream, IL (See Map)
December 9, 2018	7AM-11AM Indoor Swap Meet Business Meeting 10AM	American Legion Hall Carol Stream, IL (See Map)



ARCI

MEMBERSHIP RENEWALS



PLEASE CIRCLE YOUR MEMBERSHIP:

<u>Membership Option</u>	<u>Dues</u>	<u>Benefits</u>
Annual Membership	\$ 25	Full benefits: <i>ARCI News</i> subscription, Fee Discounts At Events, Seller Privileges at ARCI Events.
Spousal Annual Membership	\$ 10	Discounts at Events.
Student Annual Membership	\$ 5	Must Be 18 or Under, Full Benefits.
Lifetime Membership	\$340	Full Membership Benefits For Life (non-transferable).

MAKE YOUR CHECK PAYABLE TO ARCI AND SEND TO:

Antique Radio Club of Illinois
P.O. Box 1139
LaGrange Park, Illinois 60526

EMAIL DELIVERY OF ARCI NEWS? YES OR NO (CIRCLE ONE)

PRINT DELIVERY OF ARCI NEWS? YES OR NO (CIRCLE ONE)

Name: _____

Spouse: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Home Phone: _____ Application Date: _____

Email: _____

Emergency Contact Name: _____ Phone: _____

PRESIDENT'S MESSAGE

Greetings and happy 2018 to all our ARCI members and friends. One advantage of cooler weather is that it allows us to spend more time indoors working with our vintage equipment rather than having to mow the lawn. I am honored to have been elected to be your next president by the officers, board and attendees at the December 10th meeting. I realize these are big shoes to fill! Our club continues to grow, and *Radiofest* continues to be a world-class radio event. This does not happen by chance. Strong leadership, vision and dedicated volunteers are key to success. Speaking of strong leadership, we want to recognize and thank Jeff Aulik for picking up the reins and guiding us through a successful 2017 as president of ARCI. Thank you, Jeff!

As a bit of background, I started building radios and electronics projects in sixth grade thanks to the encouragement of my dad who was doing the same thing at the time! A ham radio license soon followed (K9AHS), and I decided that electronics might not be a bad vocation. After college, I joined Shure Incorporated and spent the next 48 years there in audio and RF engineering (I am now retired). Many of you visited, or are aware of, the former Muchow's Historical Radio Museum in Elgin, Illinois that was hosted by my dad, Dr. Ralph Muchow. Museum visits were part of ARCI *Radiofest* programs in the past, and I cannot begin to tell you how many antique radios I helped to restore for the museum displays. It was work but great fun! The museum volunteers and the ARCI visitors looked forward to the annual ARCI *Radiofest* museum visits.

Our club has a rich history with our annual *Radiofest* recognized as being one of the premier radio meet events in the country. Accordingly, planning for *Radiofest* 2018 is well underway. This year, *Radiofest* will be two days rather than three, and it will be held later in the month than in past years. The events schedule will change slightly due to the elimination of Sunday morning. Additional *Radiofest* planning details are found elsewhere in this newsletter. The timing change was a result of conflicts at the Medinah Shriners' facility. We hope to return to an early August schedule in 2019.

As always, we really want to hear your thoughts and suggestions about all aspects of the club. Your feedback is most important because we each have a unique perspective on the club and what elements might be incorporated for improvement. Volunteer a little of your time to help out at our meets or serve a term as an officer to help insure ARCI's future. New volunteers with new ideas and energy are always welcome! Feel free to talk with me at club events or e-mail me at smuchow@att.net.

As president, my purpose is to serve ARCI and all its members. I appreciate this opportunity and will do my very best to fulfil this vision. Thank you.

Remember, ARCI is your club! So please let me know if you have any ideas or suggestions for activities or events that you would like us to consider for 2018. You can email ARCI's website address clubinfo@antique-radios.org or you can email me directly at smuchow@att.net.

*See You At The Next Meet,
Steve Muchow
ARCI PRESIDENT*

ARCI UPDATE

The President's Column ~ All The News That's Fit To Print

UPCOMING BUSINESS MEETING FEBRUARY 25, 2018

We strongly urge all interested members, Officers and Board members to attend the upcoming business meeting. WE NEED YOU!!! New blood is needed to preserve the vitality and innovation of one of the best radio collecting clubs in the country. Planning for Radiofest 2018 is already underway. ARCI is your club!! Please plan to participate and lend a hand! See you at the meeting!!

MEMBERSHIP DUES

Remember to send in your membership dues for 2018. Dues remain unchanged from 2017 and will continue at \$25 per year and \$340 Lifetime. Please see the enclosed form. We apologize for any confusion stemming from the December issue of ARCI NEWS which included an old membership form.

OFFICERS FOR 2018

ARCI held its annual business meeting and officer elections at the December meet. The following people are nominated to serve another year:

Board of Directors

Dr. Barry Janov, Chairman
David Bart
Art Bilski
Harry Blesy
Ed Huether
Tom Kleinschmidt
Steve Muchow
Robert Piekarz
Olin Shuler
John Stone
Jeff Aulik

Officers

Steve Muchow, President
Jim Novak, Vice President
Keith Schreiter, Secretary/Membership
Rudy Hecker, Treasurer

VOLUNTEERS FOR 2018

ARCI has been fortunate to have a great team of volunteers over the years. Thank you to the following people who have committed to helping as volunteers in 2018:

Nicholas Tillich, <i>Radiofest</i> Auction Coordinator	John Stone, <i>Radiofest</i> Auction Coordinator
Jim Sargent, <i>Radiofest</i> Auctioneer	Jim Novak, WA9RCI Ham Radio Station
Tom Kleinschmidt, Bill Cohn, Donation Auction	Ron Grams, WB9IMR, Trustee of FCC License WA9RCI
Ed & Judy Huether, <i>Radiofest</i> Coordinators	Rudy Hecker, Signage, People's Choice Contest
Elaine Hecker, Registration	Jim Rajkovic, Webmaster
Art Bilski, Public Relations	Cindy Fudge, ARCI Newsletter Publisher
Julia & David Bart, <i>ARCI Newsletter</i> Editors	Karl Johnson & Pete Nauseda, Parking and Information

DECEMBER 2017 SWAPMEET

While there was no snow on this early Sunday morning, the temperature was cold enough to remind us how nice it is to have the option of moving our meetings inside. The Boy Scouts served hot beverages and breakfast which continues to be a welcome event. The hot coffee is especially appreciated when first coming in from the cold.

There was a nice turnout of collectors with 23 sellers' tables full of antique radios, vintage Hi-Fi and related items. I continue to be amazed at the variety of items that are available on these tables at each meet. Truly, each swap meet is unique and worth the trip as you just never know what treasure may pop up. It's also a great opportunity to catch up on news with your fellow collectors. The donation auction continues to be a crowd-pleaser and raised over \$500 for the club. Thanks to all who support this worthwhile event!

Following the donation auction, we held a business meeting to elect the 2018 slate of officers and to continue planning for Radiofest 2018. Please remember that all are invited and encouraged to attend business meetings. Your input is always welcome!



**I WANT YOU
TO VOLUNTEER WITH ARCI !!**

We Need Your Help To Run Your Club!!

- ARCI News – Authors, Contributors
- Radiofest – Volunteers
- Local Meets – Volunteers
- Radiofest Staff – Auction, Registration
- Radiofest Hospitality Tent – Donors, Staff

Earn your stripes today!

*Please Contact Your Board Members & Club Officers
Steve Muchow, ARCI President
smuchow@att.net*

RADIOFEST 2018 PLANNING UPDATE

By Steve Muchow, ARCI President

**** NEW DATES -- Radiofest 2018 -- NEW DATES ****

Friday August 24 - Saturday August 25

Medinah Shriners

550 N. Shriners Drive

Addison, IL 60101

Radiofest 2018 will take place at the end of August due to conflicts at the Medinah Shriners. We hope to return to an early August schedule in 2019.

Radiofest 2018 will again be held at the Medinah Shriners' location in Addison, Illinois with the adjacent Hilton Garden Inn providing overnight accommodations. We are very fortunate to return and enjoy these fine facilities. The Medinah Shriners is located at the junction of I-355 and Army Trail Road in Addison. This is a very convenient location that can be easily accessed from all directions within the entire Chicago area. See the map below for location details.

Building on the tremendous success of *Radiofest 2017*, we are enthusiastically putting together the activity details for *Radiofest 2018*. The two-day schedule of events will be very similar to last year except for a few minor changes due, in part, to the elimination of Sunday morning. Be sure to reserve the dates shown above on your calendar for *Radiofest 2018*!

Just like 2017, we will start the action with our Friday night auction, followed on Saturday morning by the swap meet through mid-afternoon. The swap meet will again be located in its own large parking lot at the west end of the facility. There will be plenty of seller spaces available with lots of room between rows for maneuvering a small truck or a vehicle with a trailer. The sellers' lot is also totally out of the main traffic flow, which is good for those walking around the swap meet. The pavement will be marked with parking spaces and continues to be in excellent physical condition. Directly adjacent to the sellers' lot is the main parking lot, with over 170 spaces available for buyers and visitors. It is an easy walk from one lot to the other, with plenty of spaces available. This parking layout is well-suited for *Radiofest*!

We will again feature our speakers' programs, contest, and display during the day on Saturday. And, of course, we will also have our popular appraisal tent and the outdoor ham station with special ARCI club call letters WA9RCI. The usual donation auction will be held later in the afternoon. Keep in mind that you may purchase donated items throughout the day without having to wait for the actual donation auction. Either way, your purchase will likely be a bargain! The awards dinner event will be held Saturday night.

The indoor facilities of the Shriner's building are just as impressive as the outside: modern, beautifully maintained, and very spacious. We will only use part of the ballroom and still have plenty of space for the auction and banquets, along with an adjacent space for our equipment display and contest areas. Again, we will be using one of the large "classroom" spaces for our speaker presentations which are located right down the hall from the ballroom.

Again, our official hotel for Radiofest 2018 is the Hilton Garden Inn, located directly adjacent to the Medinah Shriners complex, and a very short walk from the banquet facilities and parking lots. Medinah Shriners and Hilton Garden Inn are completely independent entities, but they coordinate closely on events. Our contact at Shriners again helped us negotiate a really great price with the hotel at a rate of \$95 per night—same as 2017. This is a really nice hotel at a great price. You will not be disappointed!

<p>RADIOFEST Medinah Shriners 550 Shriners Drive Addison, IL 60101 (630)-458-0200</p>	<p>HOTEL Hilton Garden Inn Addison 551 N Swift Road Addison, IL 60101 hiltongardeninn3.hilton.com (630) 691-0500</p>
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We have secured a block of rooms at the Hilton Garden Inn and reservations for the hotel are now open! You can go to the online reservation system, which has been set up exclusively for *Radiofest* reservations, at this web site:

http://hiltongardeninn.hilton.com/en/gi/groups/personalized/C/CHIAHGI-RAD18-20180823/index.jhtml?WT.mc_id=POG

Or, you can call the hotel at: 630-691-0500. Mention *Radiofest* to the friendly reservation agent to get the special discount rate.

Watch for additional *Radiofest 2018* information in future editions of the ARCI NEWS, *Radiofest* mailings and our ARCI web site www.antique-radios.org. With our wonderful location and our dedicated team of ARCI volunteers, you can understand why we are enthusiastic as we plan for our largest event. So, mark your calendars and start making plans to attend! Please feel free to contact me at smuchow@att.net should you have any questions, comments, or suggestions.

LOCATION OF RADIOFEST 2018.





AMATEUR NEWS

An Occasional Column For Amateur Radio Operators
By Keith Schreiter

WORLD AMATEUR RADIO DAY -- APRIL 18

Every April 18, radio amateurs worldwide take to the airwaves in celebration of World Amateur Radio Day. It was on that day in 1925 that the International Amateur Radio Union was formed in Paris.

Amateur Radio experimenters were the first to discover that the short wave spectrum — far from being a wasteland — could support worldwide propagation. In the rush to use these shorter wavelengths, Amateur Radio was “in grave danger of being pushed aside,” the IARU’s history has noted. Amateur Radio pioneers met in Paris in 1925 and created the IARU to support Amateur Radio worldwide.

Just two years later, at the International Radiotelegraph Conference, Amateur Radio gained the allocations still recognized today — 160, 80, 40, 20, and 10 meters. Since its founding, the IARU has worked tirelessly to defend and expand the frequency allocations for Amateur Radio. Thanks to the support of enlightened administrations in every part of the globe, radio amateurs are now able to experiment and communicate in frequency bands strategically located throughout the radio spectrum. From the 25 countries that formed the IARU in 1925, the IARU has grown to include 160 member-societies in three regions.

IARU Region 1 includes Europe, Africa, the Middle East, and Northern Asia. Region 2 covers the Americas, and Region 3 is comprised of Australia, New Zealand, the Pacific island nations, and most of Asia. The International Telecommunication Union (ITU) has recognized the IARU as representing the interests of Amateur Radio.

Today, Amateur Radio is more popular than ever, with over 3,000,000 licensed operators!

World Amateur Radio Day is the day when IARU Member-Societies can show our capabilities to the public and enjoy global friendship with other Amateurs worldwide.

Groups should promote their WARD activity on social media by using the hash tag #WorldAmateurRadioDay on Twitter and Facebook. IARU will list all WARD activities on this page. To have your WARD activity listed, send an email to ARRL Public Relations Manager Sean Kutzko, KX9X, at kx9x@arrl.org

April 18 is the day for all of Amateur Radio to celebrate and tell the world about the science we can help teach, the community service we can provide and the fun we have. For more Information, see www.iaru.org.

LITTLE TIDBIT

An Occasional Column Of Curiosities
Submitted By Keith Schreiter

PI DAY

Happy Pi day which is the 16th letter of the Greek alphabet and is also Albert Einstein's birthday, Wednesday, March 14, 2018. And, because 3.14 is also Albert Einstein's birthday, a celebration takes place in Princeton, New Jersey in honor of both Pi Day and the mathematical genius, who lived in the area.

$$E=mc^2$$

NEWS FROM THE HAMSHACK

By: Jim Novak, WA9FIH

ALLIED RADIO'S KNIGHT KIT R-100A AND T-150

Back in the last millennium when I was a young ham, those of us who enjoyed kit building (and found it more affordable than purchasing an assembled piece of gear) had several manufacturers to select from. The three major players were EICO, Heathkit, and Knight Kit. EICO, headquartered in New York, was probably better known for their lines of hi-fi and test equipment, but also produced several entry level transmitters, some accessories including a VFO, and the 753 SSB transceiver, a three band unit with external AC and DC power supplies and a matching electronic keyer for CW (Morse code) operation. Heathkit, from Benton Harbor, Michigan, was the best known and largest supplier of electronic kits, offered a wide variety of ham gear.



Allied R-100 and S-Meter.

The Knight Kit subsidiary of Chicago's Allied Radio was located just off the Eisenhower Expressway in Maywood, and is the subject of this month's article. When the FCC began offering the Novice Class entry level Amateur Radio license in the early 1950's, The T-50 transmitter appeared in Allied's catalog. A simple CW only, 80 through 10 Meter transmitter, the T-50 ran about 50 Watts RF input with a type 807 final amplifier tube. Accessories included a simple screen modulator for AM operation, and an external VFO, since the basic transmitter was crystal controlled. In the early 1960's Knight introduced the T-60, with a built in screen modulator for AM. It covered 6 through 80 meters, appealing to hams who would upgrade to Technician Class licenses which at the time restricted their operation to 50 MHz and higher frequencies.



Allied R-100A and S-8A speaker.

Finally, in the 1963 Allied catalog (issued in fall 1962), Allied's last HF ham transmitter, the T-150, was introduced. The T-150 featured operation on all bands 80-through 6 Meter operation, with a built in VFO or crystal control, a self-contained screen modulator with provision for an external plate modulator. There was actually one more 80 through 10 Meter transmitter, the T-400, which appeared in Allied's catalog – a modular based unit with various add-on subassemblies including a Single Sideband (SSB) generator, but the T-400 never actually got into production, and only a handful of prototypes were assembled by Knight's engineers.

The T-150 had a companion receiver, the R-100A, with attractive styling that matched the transmitter. Actually the original R-100 had preceded the T-150 to market by several years – the "A" version had some minor electronic upgrades but the main difference was a cosmetic makeover, since the original version had a much different appearance – cabinet, front panel, knobs were all revised in the "A" version. Both models featured a printed circuit board covering several critical areas of the radio's circuitry that would hopefully make it easier on the builder to achieve performance near, or equal to, published specifications.



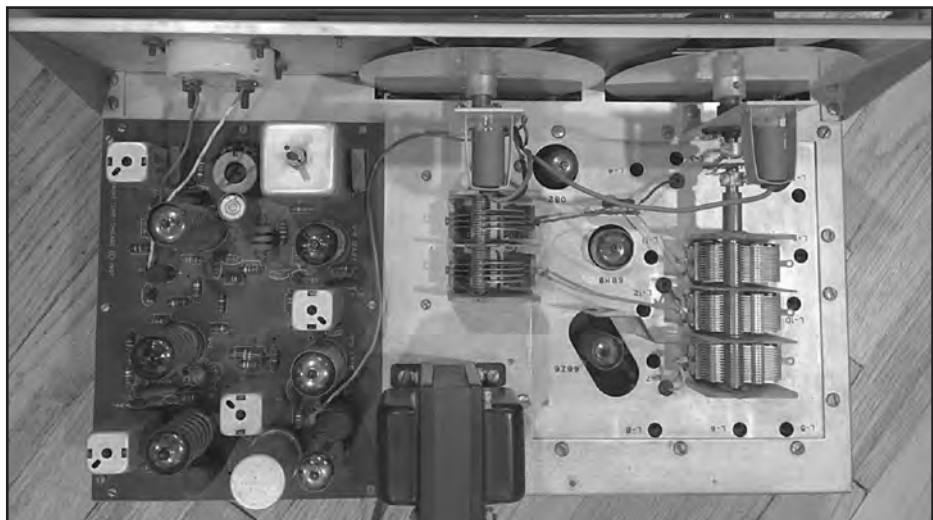
Allied T-150A.

My involvement with the T-150 dates back to the early days of my ham radio career. I had just taken (and passed) my FCC exams for Novice and Technician Class ham licenses in the Fall of 1962– back then the Novice licensee could operate CW only, 75 Watts maximum, in portions of the 80, 40, and 15 Meter bands, as well as Phone or CW between 145 to 147 MHz. It was a one year non-renewable license. The Technician license also required knowledge of Morse code at 5 WPM plus a more extensive written exam covering theory and operation. So I had two calls simultaneously: WN9FIH as a Novice, and WA9FIH, my Technician Class call, until I took my General Class exam in spring 1963. My gear consisted of a Heathkit Sixer (a.k.a. The Lunchbox) for 50 MHz and my Hallicrafters S-85 receiver and a second hand Heathkit DX-100 transmitter running crystal control and power backed down to 75 Watts on the Novice bands. The DX-100 was a big, heavy brute of a transmitter, and although it worked well, I really wanted something lighter and easier to work on.

Back then, Six Meter AM was similar to Two Meter FM today – one became acquainted with other local hams through repeated contacts. One such contact in late winter of 1962 introduced me to Allied Radio’s Sunday warehouse sales. They had a warehouse not far from the old Chicago Stadium with a small “showroom” or sales area that was open to the public about once a month, advertised via a small classified ad in the Sunday Tribune. Allied offered a “satisfaction guaranteed or your money back” sort of guarantee on their kits, and ended up with a number of unhappy kit builders bringing back their assembled units for refunds. When I heard that T-150 transmitters were showing up at those sales for \$20 as-is, a substantial discount from their kit price of \$119.95, I was among the first in line waiting for the doors to open on the day of their next sale!

The trip was worthwhile! I was able to bring home a nice clean, shiny assembled T-150 guaranteed not to work as advertised. Sliding off the wrap-around cabinet, I could see that all the tubes were in place and the top side wiring looked OK. Flipping the transmitter over to look under the chassis, it was immediately apparent to me why the set didn’t work properly. Whoever built it left the leads of every resistor and capacitor full length, introducing enough stray added inductance and capacitance that explained why it wouldn’t work as advertised, especially on the higher frequency bands!

This was a great learning experience for a “young ham!” Upon earning my General Class license, I put the T-150 to work. I was able to make a few AM phone contacts, although even then SSB – Single Sideband – was taking over, so I concentrated on working CW, mostly on 20 and 15 Meters, and had a great time while improving my Morse code skills. The T-150 was not without its shortcomings, though, and several articles appeared in ham publications regarding spurious emissions, especially on the lower frequencies such as 80 and 40 Meters. Although the pair of 6146 tubes in the final stage put out 100 Watts or so on 20 and 40 Meters, output on 6 Meters was a measly 20 or 25 Watts as the final stage, which also served as a “doubler” on 6 rather than running “straight through.” Allied soon came out with an upgrade, offered free of charge to T-150 owners, consisting of several components and additional shielding to significantly reduce spurious outputs and resulting TVI (television interference).



Chassis of the Allied R-100A.

There have been a number of articles regarding the T-150 published over the years, many appearing on the Internet, discussing improvements, reducing spurious emissions, etc. Incidentally, some may wonder why tubes principally intended for audio ended up in RF applications, such as the 7189 used as a driver tube. Well, that mystery was solved some years later when I happened to meet a fellow ham at one of the local hamfests. He had worked at Knight Electronics and was responsible for designing several pieces of their ham equipment, including the T-150. He explained that Allied was able to get great prices on tubes by purchasing them in large quantities, and so the high quality 12AX7/ECC83s, 7189s, etc. made by highly regarded European firms such as Mullard and principally intended for use in Knight's hi-fi kit line, also were used in ham gear and test equipment that they offered. And as far as the low power output on six meters due to doubling in the final stage, he explained that the "bean counters" had asked that something be done to reduce the sale price of the transmitter, and although it originally had a separate doubler stage so the finals would run "straight through" on 50 MHz., he had to eliminate it despite his objections to doing so!

RADIO ZONE

An Occasional Column about Topics of Radio Interest
By John Schneider, W9FGH

[Editor's Note: The following article is reprinted courtesy of Spectrum Monitor Magazine, December, 2014. See <http://www.theradiohistorian.org/portable/portable.html>.]

PORTABLE STATIONS THE RADIO ROVERS OF THE 1920s

INTRODUCTION

1922 was the year that radio broadcasting exploded across the American landscape like a thunderclap. Americans discovered radio almost overnight, and were instantly enthralled at the possibility of hearing voices and music out of thin air. Prior to radio, the only mass media that existed were newspapers, silent films and phonograph records – and none of these were instantaneous. Now, you could hear a live orchestra from Pittsburgh, or children's bedtime stories as they were being read in a studio in San Francisco.



The A.H. Grebe Company's mobile station WGMU broadcast with 100 watts from a Lincoln sedan.

Americans spent \$60 million on radio sets and parts in 1922, and businessmen and hobbyists fed the radio craze by building hundreds of new broadcasting stations. Almost overnight, the radio spectrum was packed with signals from all around the country - the number of licensed stations went from 28 in January to 670 by the end of the year.

At first, all radio broadcasting stations were licensed by the Department of Commerce, who authorized stations in hundreds of cities around the country. But there were still many smaller cities and towns that did not yet have their own broadcast stations, and so to serve these cities a special class of “portable” station license was created. These portable stations were essentially complete radio stations on wheels. They would bring their equipment into cities that had no local radio service and set up temporary broadcast facilities to transmit special events and introduce people to the marvels of radio. Many companies used these stations as promotional vehicles – the radio manufacturers Grebe and Zenith both had portable traveling radio stations that went town to town promoting the sale of their radio sets.

THE CARRELL STATIONS

Charles L. Carrell, a Chicago theatrical booking agent, was the biggest portable broadcasting entrepreneur in the country. At his peak, he had seven portable transmitters - each with its own license and call sign - traveling around the Midwest broadcasting live from the local theater to promote his vaudeville theatrical engagements.

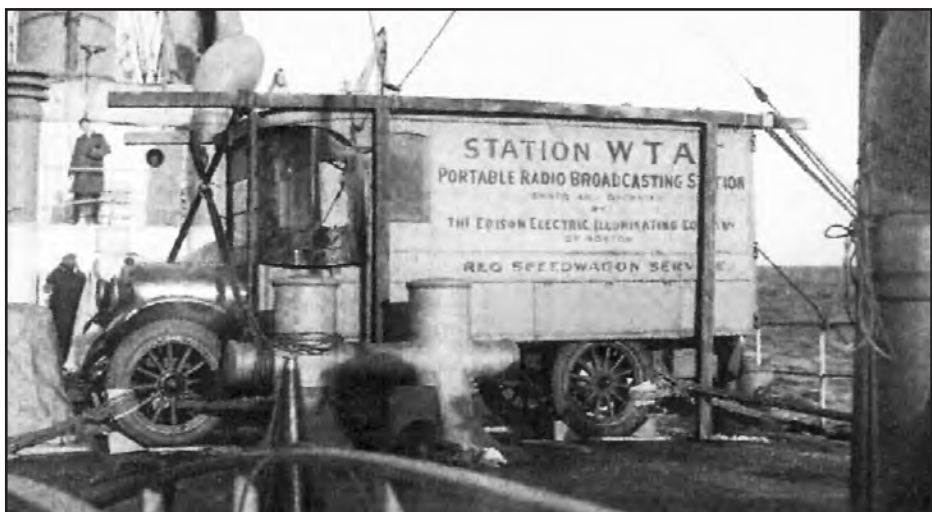
Carrell, who had an early fascination with radio, acquired one of the very first portable stations, WBBZ (1390 kHz) in Indianapolis. (The call sign was taken from an Indianapolis promotional slogan – the “World’s Busiest Business Zone”.) Carrell moved WBBZ to the Broadview Hotel in Wichita, where it broadcast professional from his theatrical revues as well as local talent. From there, it toured the Midwest with the Redpath Chautauqua circuit, broadcasting shows in every community where the vaudeville acts performed.

With the success of WBBZ, Carrell soon licensed other portable stations: WHBL, WHBM, WIBJ, WIBM, WIBW and WKBG. They traveled to cities far and wide, usually in the spring and summer months when county fairs and local festivals were at their peak.

NEW ENGLAND PORTABLE STATIONS

The Edison Electric Illuminating Company in Boston was a private electric utility founded by Thomas Edison. (In 1936, the company changed its name to Consolidated Edison.) It operated the Boston radio station WEEI (named for the company’s initials), and it also had a portable radio station, WTAT (1230 kHz, later WAAT) that traveled around New England, going to electric shows to demonstrate the labor-saving benefits of electric lights and appliances.

WTAT’s mission was “to give entertainment, music, and short talks by prominent people on electrical subjects.” Its first broadcast took place at the Dedham Electrical Show in 1923. Edison staff members read news reports and performed musical numbers, and an Edison executive gave a speech entitled "Using Electricity in the Home". Over the next few years, WTAT traveled around New England and even made a broadcast from a ship at sea.



The Edison Electric Illuminating Company's portable radio station WTAT broadcasts from aboard a ship.

Charles Messter in Providence was another portable station operator. He was a radio equipment retailer, and he built 50-watt WCBR in 1924 to promote his products. Messter had a 200 foot long wire antenna that he would set up in temporary locations. He broadcast from Lynn's Strand Theatre in late May, and from the German Theatre in Roslindale in June. The station then went on the road, operating mostly in Eastern Massachusetts but on one occasion traveling as far north as Portland Maine. Messter later returned to Rhode Island and broadcast from the Rocky Point Amusement Park.

EDISON STATION WTAT AT BOSTON RE-OPENS

New Call Letters WEEI to Replace Old WTAT

BOSTON.—After a silence of several weeks Station WEEI, formerly WTAT, of the Commonwealth Edison Light company of this city, opened its new schedule on September 29.

The new station was dedicated with an address on "WEEI Policy" by Charles L. Edgar, president of the light company. A popular program of quartet, vocal and instrumental numbers was given, including dance music by Dok-Eisenbourg and his Sinfonians.

Charles Birton is superintendent of broadcasting. C. R. Emery is program director.

It is understood that WTAT will continue to operate as a station of 100 watts. It will use the old call letters. WEEI will broadcast on 590 watts.

Radio Digest - Oct. 11, 1924

This article describes the rebirth of WTAT as station WEEI, becoming a "grounded" station in Boston that is still on the air today.

At the same time as Messter applied for his portable station, his buddy Harold Dewing also applied and was given the call sign WCBS. (Station call letters were assigned sequentially in alphabetical order in those days.) However, finding limited commercial success for his station in New England, he took his station on the road to the Midwest where he had successful showings in Danville and Springfield, Illinois.

THE ZENITH AND GREBE STATIONS:

A.H. Grebe and Co., Inc. was an early radio receiver manufacturer operated by Alfred H. Grebe in Richmond Hill, NY. To publicize its radio products, Grebe operated two New York area broadcast stations – WAHG (his initials) and WBOQ (Borough of Queens). (WAHG became WABC, which was bought by CBS and later became today's WCBS.) Grebe also had licenses for two portable stations, both operating with 100 watts on 1270 kHz. WGMU was installed in a Lincoln sedan, while WRMU was installed on Alfred Grebe's yacht, the MU-1. Grebe used the station to broadcast live boat races from 1924 to 1927. It appears to be the only maritime portable broadcast station to ever have operated in the United States.



Maritime Mobile transmitter of the A.H. Grebe Station WRMU, 1926-27. The transmitter is at the top of the cabinet, a Grebe receiver is in the middle, and a motor generator is located behind the door at the bottom.



The A.H. Grebe station WRMU broadcast live sailing races from the deck of Albert Grebe's yacht, the "MU-1", 1926-27.

In Chicago, the Zenith Corporation was another radio manufacturer that acquired a portable station license to promote its products. The Zenith station WSAX (1120) was built on a one-ton truck chassis. It was originally built in 1924 to find the best location in the Chicago area where Zenith could locate its new radio station (WJAZ). Afterwards, it continued to be used as a publicity vehicle for Zenith through 1926.

Completely self-contained and battery operated, with 100 watt transmitter, generator, portable 53 foot telescoping antenna masts. Glass sides and lighted, including spotlights on the antenna masts. The audio control panel provided for the use of three microphones with 300 foot extension cables, allowing the truck to be parked outside of auditoriums to broadcast live concerts and events.



Zenith Radio Corporation's portable station WSAX / WJAZ.

END OF THE LINE

After 1925, the interference between radio stations began to rise dramatically because too many stations had been allowed to operate. After a 1926 court ruling invalidated the authority of the Department of Commerce to regulate radio, with many stations decided to move to more favorable channels, which caused massive interference in the broadcast spectrum. The portable stations, who only added to the confusion, increasingly became the target of complaints from the established fixed broadcasters, as a portable station could pop up anywhere in the country and interfere with nearby stations on the same or adjacent channel. There was now less need for such stations, they argued, because radio was more established and both the powerful network stations and local community stations could be heard in most places.

Finally, in 1927, Congress created the Federal Radio Commission and gave it a mandate to clean up the chaotic radio broadcasting frequencies. One of the first issues that the FRC tackled was the issue of the portable stations. It issued General Order no. 6, moving all portables to 1470 and 1490 kHz, at the top of the band, and allowing a maximum operation period of 120 days in the spring and summer at no more than 100 watts of power.

Apparently that didn't fully resolve the issue, so on May 10, 1928, the Commission followed with its General Order No. 30, which stated: "It is hereby ordered by the Federal Radio Commission that no license or renewal or extension of existing licenses will be issued to portable broadcasting stations after July 1, 1928, and on that date all portable broadcasting stations will cease operations."

FINDING A HOME

As a result of the new rules, many portable stations simply went off the air after the 1928 deadline, but some of them were allowed to be converted into permanent stations located in underserved communities:

Harold Dewing's station WCBS, settled in Springfield, Illinois. It later became WCVS when CBS wanted the call letters for its flagship station in New York. It's now known as WFMB.

Charles Carrell took WHBM to East St. Louis, Illinois, at the invitation of the city's Chamber of Commerce, who wanted a station of its own on the east side of the Mississippi River. WHBM operated for a few months from the Lyric Theater, but it apparently didn't meet everyone's expectations as it had quietly ceased operations by the end of 1927. (A few years later, East St. Louis finally got its own station - WTMV.)

Four of Carrell's other stations were more successful in finding permanent homes: WIBW landed in Topeka; WHBL went to Sheboygan; WBBZ ended up in Ponca City, Oklahoma; and WIBM found a home in Jackson, Michigan. All of these stations are still operated today under their original call signs.



July 1, 1927: WHBL, one of Charles L. Carrell's portable stations, was installed in a special railroad car of the Chicago, Milwaukee and St. Paul Railroad's express train, the Pioneer Limited. Engineer K. W. Pyle adjusts the transmitter.



This view shows the studio half of the railroad car of radio station WHBL. A complete radio program was broadcast from here while the train was en route from Chicago and Minneapolis on July 1, 1927.



The studio of WHBL after it became a "grounded" station in Sheboygan, Wisconsin.

Carrell, who had the most to lose because of the new ruling, challenged the decision with the FRC. When they reaffirmed their decision and refused his request for renewal of his licenses, he took the case to the District of Columbia Court of Appeals, which in 1929 upheld the FRC's authority to regulate spectrum and eliminate the portable stations. Carrell was ordered to pay the court costs.

EPILOGUE

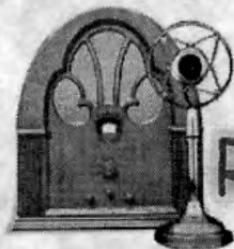
The portable broadcast stations represented a short-lived but interesting class of broadcast station in the "Wild West" of early 1920s radio. They served a purpose at the time, as they helped develop an interest in radio in the underserved small communities of the country, but they ceased to be necessary as broadcasting matured into a stable mass medium that required structure and stability.

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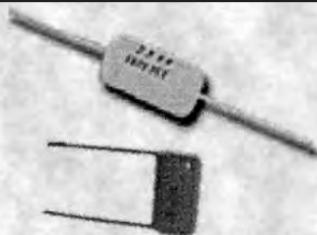
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WISCONSIN ANTIQUE RADIO CLUB, INC.

The next WARCI meetings will take place Apr. 8 (Madison) and May 6 (Cedarburg). For information about the club, please see www.warci.org.

NORTHLAND ANTIQUE RADIO CLUB

The Minnesota Club has its next event scheduled for February 18, a workshop and outdoor mini-swap meet. Radio Daze, the Upper Midwest's ultimate vintage radio collecting event, will be held May 18-19. For more information and the date which will be announced, please see <http://www.northlandantiqueradioclub.com/index.shtml>.

MICHIGAN ANTIQUE RADIO CLUB

MARC's Vintage Electronics Expo is scheduled for July 13-14 2018 at the Kalamazoo Expo Center. Details will be announced. Please see the MARC website for more information at <http://michiganantiqueradio.org/>

INDIANA HISTORICAL RADIO SOCIETY

The IHRS 2018 schedule will be announced. For more information please see <http://www.indianahistoricalradio.org/>.





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