



NEW MEXICO

# RADIO COLLECTORS CLUB

**Next meeting July 14th** Radios with odd construction

## Experiments with LED lighting

By Chuck Burch

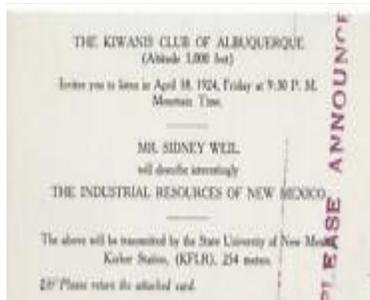
I am a trustee for my church where over half of the 14 vintage T12 florescent light fixtures in the kitchen were not working. Another trustee found Costco had florescent LED bulbs that claimed to work with either T12 or T8 florescent fixtures with no modification, to be more energy efficient and to have a 50,000 hour life. He bought a set which we tried out, and they worked well. We decided to replace all 14 fixtures with the new Costco lights. One should realize that normally T12 and T8 bulbs are not compatible even though they use the same socket. Using T8 tubes with a T12 ballast or T12 tubes with a T8 ballast usually results in a shorter life of either the tubes or the ballast.

In replacing the bulbs in the church kitchen, we discovered 4 of the ballasts

had to be replaced which I did. The kitchen is now brightly lit up with 28 new LED lights. In testing the old T12 bubs, many were not usable. You are not supposed to dispose of old florescent bulbs in your trash as they contain small amounts of mercury. I took the old unusable florescent bulbs to Home Depot who used to take them but no longer does so. Fortunately, Lowe's still takes old florescent bulbs which is where I took them.

My garage, where I have my electronic work shop, has four T12 florescent light fixtures, and one was not working. I bought a pair of the T12/T8 LED lights at Costco which I installed in the non-working fixture and worked. A few weeks later, another fixture quit work-

*(Continued on page Four)*



### Voice of the State University of New Mexico

By Rick Harris

Recently, while browsing that internet auction of fame for early amateur radio QSL cards, I saw two items relating to KFLR radio. Not knowing anything about this station, I did a little research and found it quite educational.

The item (pictured below) was a confirmation of reception of a program on January 25th, 1924 (writing not great, but I believe it's 1924). I wish I had

*(Continued on page Seven)*

## NMRCC President's message 7/14/2019

### From the President's Bench July 2019

July 14th "Radios with Odd Construction" is the monthly topic for our meeting at the Quelab. This topic seems to be a wide open opportunity to bring in a "What's It" radio that defies inclusion in other topical meetings. I imagine this may include: Unusual materials employed in the cabinet, unusual design of the cabinet, or unusual circuit design? Other?

Virtually anything that that can be made in prototype form is created at the Quelab by its' members.

During the NMRCC June monthly meeting, Ethan Moses, Quelab Director, graciously reviewed information and capabilities, while on tour, showing us how 3-D printers and laser cutters can be used to create or re-create all sorts of items. We also visited the Labs and saw the machine shop with all of its' precision lathes, drill presses, welding equipment, a wood working area, and a photo lab.



A new electronics lab is a WIP\*\* with scopes and all sorts of test equipment, parts, soldering stations, and so forth. An important element of Ethan's review included Quelab plans to add more capability in the future,

where all members are eligible to use these capabilities. Ethan also extended an offer to personally serve as Quelab Point-of-Contact for questions to inform our radio club members of next steps to utilize prototyping resources. We do recognize that using these resources does require joining the

Quelab membership. (Or, perhaps, asking a favor of a Quelab member to help with a one-off radio part?) There are four NMRCC members of both organizations that may be available to help on an exchange/trade or on a favor.

Ethan's contact information is:

(347) 907-0494, cell

[ethanmoses@gmail.com](mailto:ethanmoses@gmail.com)

Finally, Let me invite our members to share and to document our topical experiences with "**Methods of casting, replicating, and Repairing Radio Parts.**" We were treated with many personal examples of how we, collectively, accomplish the topics during our June meeting discussion. Our website can archive these resources by offering to post this information to all members. The resource information can be sent to:

[nmrcc@swcp.com](mailto:nmrcc@swcp.com)

Information already posted can be found and will be added for all at:

<https://newmexicoradiocollectorsclub.com/links/>

See you all 14 July,

John Anthes

2019 President

505-379-3438, cell

\*\*Material that has entered the production process but is not yet a finished product. Work in progress (WIP) therefore refers to all materials and partly finished products that are at various stages of the production process.

~ J Anthes

## NMRCC 2019 MEETING DATES

**January 13th** '40s through '60s tube portable

MW – SW radios

**February 10th.** '30s art deco radios, chrome chassis and intricate wood design radios

**March 10th** Techno Art and Techno Jewelry radio-electronics-science-related items that have been made into art or alternate-use objects, such as tubes made into lamps, fish bowls

**April 14th** Crosley tube radio sets

**May 19th** Spring Picnic - TBD

**June 9th** Methods of casting, replicating, and repairing radio parts

**July 14th** Radios with odd construction

**August 11th** Wild Card Sunday

**September 15th** Test equipment and classroom demonstration equipment- tube testers, signal generators, oscilloscopes, bridges, meters and etc

**October 13th** Fall Ribeye Steak Picnic (Majestic's)

**November 10th** Magnetic tape and wire recorders

**December 15th** Holiday Party

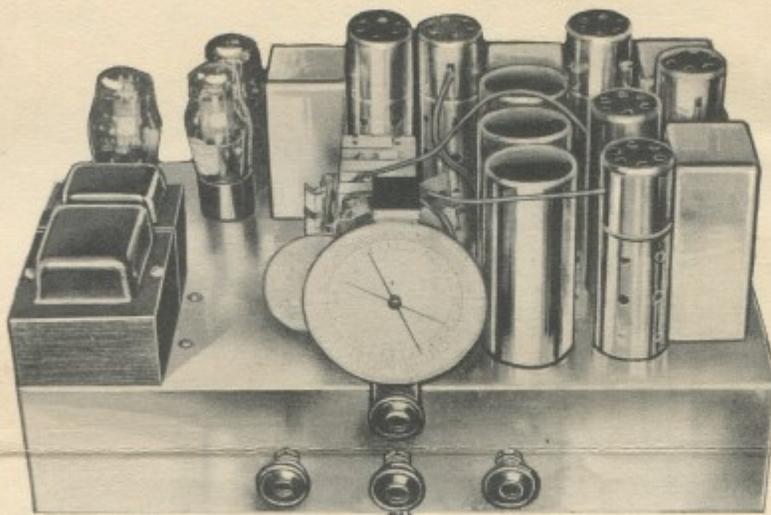
## NMRCC Officers for 2019

- *John Anthes: President*
- *David Wilson: Vice President*
- *Richard Majestic: Treasurer*
- *Chuck Burch-John Hannahs: Secretary*
- *Randy Gray: Membership*
- *Tony Marshal: Director*
- *Ray Trujillo: Director*
- *Mark Toppo: Director*
- *Don Menning: Director*
- *Richard Majestic: Newsletter Editor (President pro-tem)*

# THE WORLD-WIDE NINE



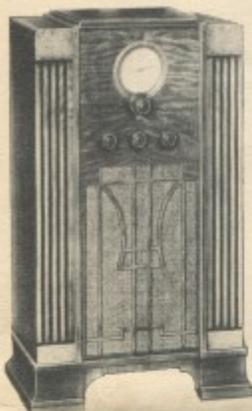
Concert Speaker  
The Custom  
Built All Wave  
Radio  
at Quantity  
Production  
Volume Price



Studio Speaker  
Twice  
as Much  
Radio  
for the  
Money Ever  
Given

The WORLD WIDE NINE with its regular Concert dynamic speaker at left and its special optional Studio speaker at right. List price with nine tubes \$148.45. Suggested net wholesale resale price, \$89.07. Add \$16.50 list (\$9.90 net wholesale resale) for Studio speaker.

The WORLD WIDE NINE is the same as the MASTERPIECE III—every single feature—but simplified to get you volume sales market. It's polished chromium in an eye-taking table cabinet—at competitive price, or priced below competition in a beautiful console.



The WORLD WIDE NINE in the snappy Claridge console. List price with tubes and Concert speaker, \$188.45. Suggested net wholesale resale price, \$113.07.

It's just the same as the MASTERPIECE III, so read the feature list of the MASTERPIECE III for its details. It differs only in being of two unit construction, chassis size 17" long by 10 $\frac{3}{4}$ " deep by 9" high. It has ten watts Class A Prime (Philco, Stromberg-Carlson, Grunow, Bosch, Zenith and many others are copying this system, invented in Mac Silver's laboratories) undistorted power output with less than 4% harmonic content at ten watts output, in having one less i.f. stage (selectivity way better than

any and all competition having only one i.f. stage), and in using a '55 tube for diode second detector, diode A.V.C. and triode first audio power driver stage. Speakers are 12" Concert or Studio models.

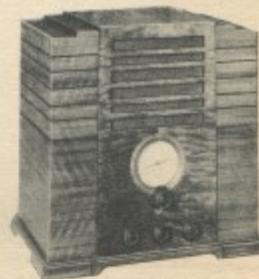
The WORLD WIDE NINE is to the MASTERPIECE III what the Lincoln car is to the Deussenberg or Rolls Royce. Its simplification sets its price where you can sell it to every customer—and it will outperform all competition at any price in the hands of your customers.

Features, construction, quality, same as the MASTERPIECE III—two special cabinets (illustrated here) for it, or any one of the special MASTERPIECE best Rockford made cabinets your customers want.

Look the WORLD WIDE NINE over—then ask your service man.

List price with concert speaker and tubes \$148.45.

Suggest resale price (net wholesale—list less 40%) \$89.07.



The WORLD WIDE NINE in its attractive Devon table cabinet. List price with nine tubes and special 8 in. Jensen speaker, \$164.95. Suggested net wholesale resale price, \$98.97.

## SHORT WAVES FOR THE CUSTOMER WHO WON'T BUY ALL WAVE

Lots of your customers like their present broadcast receivers, but also want short waves. Here's the answer—eight tubes of superlative short wave results for the price of ordinary three or four tube converters! It's the WORLD WIDE NINE less the broadcast band.

And a new, cash and carry market thrown in—the amateur market. Primarily a professional short wave communication receiver—four serve as official World's Fair receivers at Station WUSA, the new 5C gives you a new kind of market—the cash and carry amateurs who've been eating the 5C's predecessor up so fast we've never caught up with deliveries in ten months—but ask your good old service man!

The 5C is the WORLD WIDE NINE with the broadcast band and one of the push-pull output tubes omitted. For amateur telegraph reception, provision is made for inser-

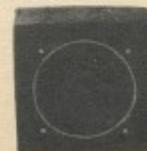
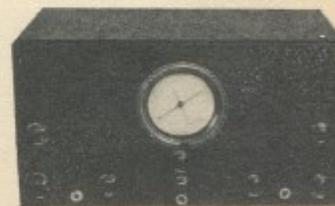
tion of crystal filter for 50 cycle selectivity—three extra knobs your short wave broadcast customers need never touch.

The 5C is complete in a crystalline black table cabinet 17" long, 10 $\frac{3}{4}$ " deep and 8 $\frac{3}{4}$ " high, with hinged cover, and separate Jensen dynamic speaker in matching 7" square cabinet.

The 5C has every other feature of the WORLD WIDE NINE and MASTERPIECE III, and is the hottest, easiest to tune (watch dial) short wave set made today, not to mention by far and away the best amateur receiver ever made.

It hits your "I've got a good broadcast set" prospects right in the eye—and gives you nice sweet amateur cash sales you've never known the joys of in addition.

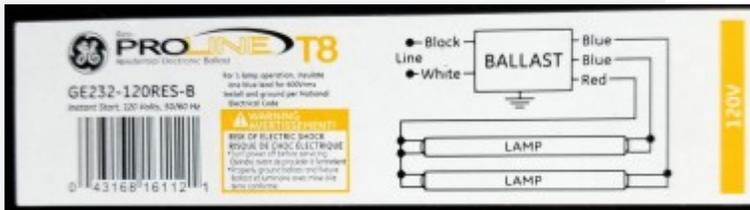
The 5C short wave receiver with its separate speaker cabinet. List price, \$124.50 with eight tubes. Suggested net wholesale resale price, \$74.70. Add \$15.00 list, or \$9.00 net resale for crystal and alignment (for amateur users only).



# The EH Scott Allwave (23) High Fidelity Imperial

ing, so I decided to replace all of them with the Costco T12/T8 LED lights. I found the price of the Costco bulbs had gone down. After installing them, I now had a brightly lit garage, so I begun working on a radio that was on my bench. About an hour or so, one of the lights quit working and in about another 30 minutes, another fixture quit, which we had not seen at the church kitchen. I installed T12 bulbs in one of the nonoperational fixtures which did not work either. I suspected the ballast got hot and the thermal cutoff disabled the ballast so I quit for the night. The next morning, all the lights worked which I felt verified my thermal cutoff theory. I decided to replace the ballasts in the units that quit but would convert the fixtures to T8. The Costco LED Lights claimed each used 14 watts and had a 50,000 hour life with a T8 ballast, but no mention was made of performance using a T12 ballast. I also decided to get T8 LED bulbs to compare with the Costco bulbs.

The wiring of T12 ballasts and T8 ballasts are somewhat different, but it is not difficult to convert them by following the diagrams on the ballasts as shown in the pictures. Ballasts come in residential and commercial versions, and there were warnings to only use the proper one in how you are using them.



Harbor Freight has an inexpensive wattmeter call Kill-a-watt meter that I use to see if a radio consumes more power than expected. It cost about \$24 but using one of their plentiful 20% discount coupons brings the price to only 20 bucks. It measures your line voltage, the current the device is using and its actual power as well as the volt-amp power (you may recall actual power depends on how the current is in phase with the input voltage).



I decided to get power measurements of normal T12 lights, the Costco T12/T8 LED lights using both a T12 ballast and a T8 ballast, and the T8 LED lights to see how the efficiencies compare. The table below summarizes the results. I used a T12 fixture I had in storage that I knew had good ballast. I also did a quick informal (certainly not very rigorous) experiment in how far a portable radio needed to be away from the light to not adversely interfere with the reception.

Bulb (pair)	Rated watts each	Ballast	Current used (amps)
Normal T12	40	T12	0.78
Costco T12/T8 LED	Not stated	T12	0.58
Normal T8*	32	T8	0.49
Costco T12/T8 LED	14	T8	0.58
T8 LED	15	T8	0.58

\* Only had one T8 bulb, power was read for one bulb and doubled.

As I sort of expected, the Costco LED bulbs take more power with a T12 ballast than a T8 ballast (63 vs. 26 watts). Nevertheless, the Costco LED bulbs take considerable less power with a T12 ballast than normal T12 bulbs use (63 vs. 90 watts). The T8 LED bulbs took slightly more power than the Costco bulbs (34 vs. 26 watts), but they also had a higher lumens rating. I suspect the listed 50,000 hours with the Costco bulbs with a T8 ballast will be less when used with a T12 ballast, but I do not plan to do any experiments to verify this. The T8 LED bulbs listed the life at 36,000 hours which is much less than Costco's. I wondered if I should convert all my T12 fixtures to T8 but decided to wait until I needed to replace the T12 ballast, at which time I will convert the fixture to a T8 ballast.

On another line of thought, I recently helped changing out a burned out LED light bulb at the church, and I wondered what was inside it. I have taken burned out compact fluorescent light (CFL) bulbs apart in the past which is fairly easy to do and have found 200v electrolytic capacitors (10,22, and sometimes 47 uf electrolytics) inside them that can be useful in repairing radios. The LED light bulb is not as easy to take apart, but I was able to dissect it with my Dremel tool. The base has an aluminum shell around the power conversion circuit which I think it is for heat dissipation but it could also help reduce the RF interference. The

## The EH Scott Allwave (23) High Fidelity Imperial

only useable parts to me contained inside the LED bulb were a 6.8uf 250v cap, a 4.7uf 160v cap and a 3mh inductor plus a piece of recyclable aluminum. These parts are not as useful to me as what is inside a CFL. While taking apart an LED bulb was an interesting experiment, I feel doing so for their parts is not a worthwhile activity.

~C Burch

I have few LED lamps in my table lamps and under cabinet counter lights and they are great but they are RFI transmitters and mess with all my AM receivers including my EH Scotts. They are not part 15 compliant with FCC rules..In my shop and garage I put in these new high output 40W T8 fluorescent tubes with solid-state ballasts they have been the best lights yet and they are now three years old and still light in less than a second even when cold. And they cost about a dollar a bulb.

~[ed]RM



2019

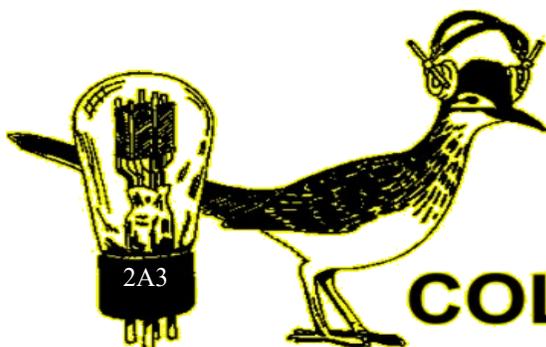
# NMRCC Fall

## Picnic

We will have our annual Fall Picnic catered by Texas Roadkill using the menu to the right RSVP me and email me what you want to eat. [rmajestic@msn.com](mailto:rmajestic@msn.com)

- ☆ The Wild West  
One pulled pork sandwich and 1 of our legendary sides. Mash potatoes, coleslaw or chips.
- ☆ BBQ Pulled Pork  
Mashed potatoes, coleslaw & our legendary  
Legendary bread with our signature honey cinnamon butter.
- New Mexico Outlaw  
BBQ chicken breast, mashed potatoes, coleslaw & our
- ☆ Ribs Over Texas  
4 bones of our pork ribs, mashed potatoes, coleslaw &  
Our legendary bread with our signature honey cinnamon but
- ☆ Cowboy Combo  
BBQ chicken breast, 3-bone of ribs, mashed pot., coleslaw,  
& our legendary bread with our signature honey cinnamon bu

October 13th 1:00 to 5:00 p.m.



**NEW MEXICO**  
**RADIO**  
**COLLECTORS CLUB**

a copy of the back of the card to see where it was mailed to. The station information is given as: KFLR. Wavelength 254 Meters (that's 1180 kHz). Power: 100 watts and what I found most interesting: Antenna: two 7-wire cages, 8 feet between centers, T-type, 140 feet long and 60 feet high. Programs are Education and Musical each Friday at 8 P.M. Special programs as announced.

I put in a modest bid but it certainly went up - sold for over \$ 70 ! Did one of our club members obtain this rare card?

Cruising the internet, I finally did find some information on KFLR. An ad in the Albuquerque Morning Journal of November 17, 1921, noted the upcoming "Greatest Football Game in the History of New Mexico between the State University of Arizona and the State University of New Mexico on November 19, 1921 - Admission \$1" and has a footnote to "Also see the new Korber Wireless Station" along with other new university buildings. So I believe the station was probably established in 1921.

Another Albuquerque Morning Journal dated March 15, 1923, has a "Notice of Open House for Visitors to the State University of New Mexico for Saturday, March 17, 1923, to see the various shops and laboratories including the Korber Wireless Station."

One source has KFLR obtaining it's Department of Commerce license in October, 1923. It looks like it took a couple of years to get the station fully functional and licensed.

So why was it named Korber? I thought it might have been named after one of the facility. Not so. Looking through the University annual catalogue of 1921-22, I found the following interesting remark in it's history column:

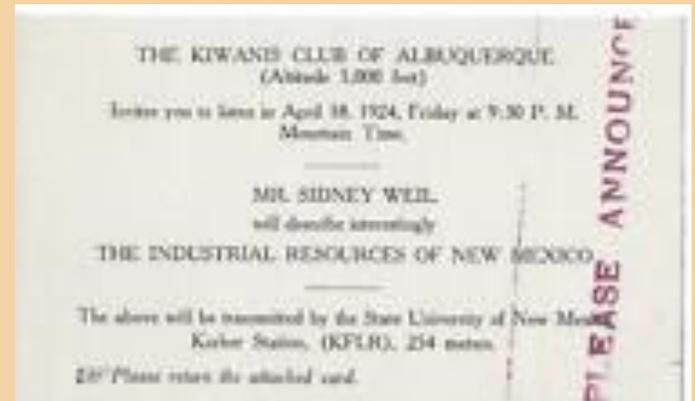
"Mrs. Jacob Korber initiated the movement for a wireless station with a cash gift of five hundred dollars (that's over \$6800 in 2017 dollars!). Various materials for the plant were given by other friends of the university, and the whole plant was erected largely by students under the direction of Associate Professor Charles E. Carey (he was an Associate Professor of Electrical Engineering)."

So, again I'm speculating, Mrs. Korber was probably from an Albuquerque "well-to-do" family who might have had an interest in "wireless" or just perhaps a university sponsor in general. Another newspaper article (March 13, 1957) noted the razing of a landmark building formerly owned by Jacob Korber and Company - which was established in 1880's for the shoeing of horses and building, selling and repairing wagons

and carriages. This certainly could have been the start of the Korber "family wealth" in Albuquerque.

Later in the catalogue, it notes "Adjacent to the Science Hall, and destined to be of great service to this region, are the lofty towers of the Korber Wireless Station." That had to be something to see!

The second item was an postcard announcement of an upcoming KFLR program. Sponsored by the Albuquerque Kiwanis Club, Mr. Sidney Weil was to present a program on "The Industrial Resources of New Mexico" on Friday, April 18, 1924 at 9:30 P.M. This tallies with the Program information (each Friday starting at 8 P.M.) noted on the above QSL card. It also sounds like a "Special Program." The card was sent to Mr. Earl Sechler of Denver. So 100 watts in the evening on 1180 kHz apparently had decent coverage in 1924! This card sold for a modest \$5.



Note on the bottom of the card it says "Please return the attached card."

That might have been either to note reception of the program and/or commentary on the content.

Unfortunately, I wasn't able to find any reference to the fate of KFLR in later years. Perhaps some of our club members will be able to tell us, as Paul Harvey used to say, the "rest of the story."

~R Harris



**NEW MEXICO  
RADIO COLLECTORS CLUB**

**New Mexico Radio Collectors Club**

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Phone: 575 521-0018

FOR INFORMATION CHECK THE INTERNET  
<https://www.newmexicoradiocollectorsclub.com/>

*The New Mexico Radio Collectors Club is a non-profit organization founded in 1994 in order to enhance the enjoyment of collecting and preservation of radios for all its members.*

*NMRCC meets the second Sunday of the month at the CueLab at 1:30 pm.  
Visitors Always Welcomed.*

**NMRCC NEWSLETTER**

THIS PUBLICATION IS THE MONTHLY NEWSLETTER OF THE NEW MEXICO RADIO COLLECTORS CLUB. INPUT FROM ALL MEMBERS ARE SOLICITED AND WELCOME ON 20<sup>TH</sup> OF THE PRECEDING MONTH. RICHARD MAJESTIC PRO-TEMP NEWSLETTER EDITOR, SEND ALL SUBMISSIONS IN WORD FORMAT, PICTURES IN \*.JPG FORMAT TO: [RMAJESTIC@MSN.COM](mailto:RMAJESTIC@MSN.COM)

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