



ARCI NEWS

www.antique-radios.org

Affiliated AWA
Antique Wireless Association 

Volume 36, Issue 5
October 2017



RADIOFEST 2017
PICTURES INSIDE

UPCOMING OUTDOOR MEET OCTOBER 8, 2017

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

October 8, 2017
7AM - 11AM

Business Meeting 9:30 am
Boy Scout Pancake Breakfast



2017 ARCI MEET SCHEDULE

October 8, 2017	7AM-11AM Outdoor Swap Meet Business Mtg./Officer Election 10AM	American Legion Hall Carol Stream, IL (See Map)
December 10, 2017	7AM-11AM Indoor Swap Meet Business Meeting 10AM	American Legion Hall Carol Stream, IL (See Map)

PRESIDENT'S MESSAGE

It is really hard to believe that fall is already here and *Radiofest 2017* has come and gone. And what a great *Radiofest* it was! Our venue was again nothing short of fantastic, and our hotel accommodations were also excellent. Our seller registrations held pretty close compared with 2016, and the main auction bottom line was the second highest ever. It was, as always, a jam-packed event, and I know that even those who stayed for the entire duration could not possibly have experienced every part of it. But now you can read all about it right here! This month's *ARCI NEWS* features individual, detailed articles covering every aspect of *Radiofest 2017*, including the main auction, ham station, display, and equipment contest. So take a little time to sit back, relax, and read all about what actually happened at our premier ARCI event.

It goes without saying that pulling off a complex event like *Radiofest 2017* was no small feat. Yet, as has been true for many years prior, a small, highly dedicated group of volunteers stepped up to the plate and hit a home run. These volunteers come from all over the country and belong to a variety of different radio clubs. Without their valuable contribution of time, talent and energy, *Radiofest*, as we know it, would simply not be possible. And, this is something that every ARCI member should never take for granted. So once again, I want to take this opportunity to thank each and every *Radiofest* volunteer for your help and support in making *Radiofest 2017* one of the very best ever.

Please remember to mark your calendars for our next ARCI meet and business meeting, scheduled on October 8th at the American Legion Hall in Carol Stream. This will be our last outdoor meet of the year, weather permitting, but keep in mind that we can always move the festivities indoors should a little rain come our way. We will hold our usual swap meet starting at 7AM, and our friends at the American Legion Hall will be selling coffee and breakfast items. And, don't forget about the donation auction. Our members—and some nonmembers—have been so generous in both donating items and bidding high prices at each auction it is overwhelming to me.



See You At The Next Meet,
Jeff Aulik
ARCI PRESIDENT

IMPORTANT UPCOMING BUSINESS MEETING OCTOBER 8, 2017

Every October, ARCI reviews its results from *Radiofest* and begins to conceive of planning for 2018. Please join us for our annual business meeting at 9:30am on October 8, 2017.

The meeting will also include a discussion about officer elections that will be held at the December Meet. Jeff Aulik has completed his term as President and wishes to step down. We are actively seeking a new ARCI President, and we welcome all volunteers to consider running for office. The role of President has markedly changed over the years. ARCI News, the website, and speaking programs at *Radiofest*, the *Radiofest* Old Equipment Contest and *Radiofest* Special Display are primarily managed by returning volunteers. The *Radiofest* Auction is now primarily run by the Wisconsin Antique Radio Club, Inc. (WARCI) and an ARCI Auction Manager. Most of the volunteers return annually, and the use of a walking iPad video system to view the auction items has totally eliminated the need for significant audio-visual support staff and equipment and the need for staff to carry auction items. The location of *Radiofest* at the Shriners' facility, and our return in 2018 means that the President's job in 2018 will be easier. Many of the individual services that we used to separately manage and provide have now been incorporated into the Shriners' contract or eliminated. This means the role of the President is now more automated with better support.

But, we still need new volunteers to preserve the vitality and initiative of one of the best radio collecting clubs in the country. WE NEED YOU! ARCI is your club! Please plan to participate and lend a hand. See you at the meeting.

HEALTH & WELFARE

By Olin Shuler

SILENT KEY: RAY SCHULENBERG

ARCI member Ray Schulenberg passed away on July 17, 2017, at age 93, following a short illness. He is best remembered as the designer of the first FM car radio in 1960. He was honored by our club at *Radiofest 2013*.

Ray Schulenberg was an IEEE Life Member, and a retired radio design engineer. He was also a member of the Antique Wireless Association and the Radio Club of America. He was the 2014 recipient of the Radio Club of America's Fred Link Award for his contribution to land mobile communications.

He was born in the Buffalo, New York, on April 24, 1924 and grew up in the area. He joined Motorola in 1950 following a stint in the US Army Air Force during World War II and after earning a BSEE at American Television Institute in Chicago. Promoted to the Auto Radio Engineering Department in 1952, his design work included "after-market" radios for GM automobiles bearing the Motorola name, which were sold through distributors and dealers.

His designs saw the transition from vacuum tubes and vibrator power supplies to transistor powered hybrids and later solid state designs. Notable projects included the first FM car radio, (FM-900) and a Reverberation Sound unit using the rear deck speaker, followed by the FMC62, an FM to AM converter. In 1963 his GM aftermarket line included a “Lumalert” alarm that would sound if the vehicle’s headlights were left on when the ignition switch was off. In 1967 came another mid-60s favorite, the under-dash 8 track tape player. Annual radio design packages gradually decreased in size, while reflecting the company culture for sensitivity, sound and performance.



Ray Schulenberg

Ray was promoted to After-Market Design Department Manager in 1976. Shortly afterward, Federal regulations went into effect requiring all new automobiles to include radios as standard factory equipment for reception of weather and road safety news. That ended the after-market sales of Motorola auto radios, and the department was disbanded. From 1978 through 1984 he was a components engineer in the Communications Division and later in the (OEM) Automotive Products Division. In 1985, he was assigned as Project Manager for the manufacture of Motorola AM Stereo (CQAM) broadcast station equipment. He retired from Motorola in 1990. Ray obtained and preserved the very first FM-900 car radio to come off the assembly line in 1960 and presented it to the AWA Museum in 2016.

Memorial services were held in Palatine on August 12th at Saint Theresa Catholic Church, 455 North Benton Street at 10:00 AM. Ray Schulenberg; it was an honor to work with him.

THE RADIOFEST 2017 REPORT

By Jeff Aulik

HUGE SUCCESS AT RADIOFEST 2017

The month or so before *Radiofest* is always a busy one for the ARCI *Radiofest* team, filled with follow-up phone calls to vendors, emails back and forth with each other, last minute changes, and the inevitable “one thing we completely forgot about.” This year was no exception. But, taken as a whole, *Radiofest 2017* came together as smoothly as last year, which was a great relief to all involved, especially me. Much of the credit certainly has to go to our wonderful hosts, the Medinah Shriners, with their highly professional banquet staff, and their dedication to helping us pull off a successful meet. The quality of the facility and its employees was second to none, making our jobs much easier and less stressful.

My first task of the day early Friday morning was to pack the car, checking off the items I needed to bring for the meet. The low, gray clouds concerned me, but I pressed on. From there it was off to the Medinah Shriners to get started with setup. I arrived around 10 AM to the same on and off drizzle and brisk wind I faced at home in Rockford. First up was the parking lot setup, making sure that our rental items were delivered and set up in the proper locations. All volunteers I had asked to be there early had arrived and I was glad to see them. We chalked the numbers in the lot which was perfect for our needs, with large amounts of available space and the ability to easily control traffic moving in and out. The lot itself had smooth and unbroken pavement with well-marked parking spaces, a huge improvement over some past *Radiofest* locations I can think of. By early afternoon, our tent, golf cart, AV equipment and porta-potty had all been delivered and placed. Many thanks to our sellers for not driving stakes and screws into the pavement. This was a requirement for maintaining the excellent condition of the parking lot and for returning to the Medinah Shriners next year.

Next, I went indoors to check out the progress for setup of our Friday evening auction. John Stone and Nick Tillich had everything well in hand—in fact, John Stone actually looked relaxed which made me even more certain that the auction was going to be another winner. Judy Huether had moved Registration inside the Auction room and, with Mary Johnson, was busily handing out pre-registration packets and assigning seller spots to latecomers.

Meanwhile, back outside in the swap meet lot, the first group of sellers was already arriving to claim their spaces while the skies above seemed to be clearing—a little. The rain forecasts for the week had been all over the map, shifting from 20% to 30% to 40% and back to 20%. In other words, the weather service had no clue. But, there was encouragement from the Saturday and Sunday forecasts, which had changed to spectacular, and they were.

Thankfully, the bulk of our Friday activities would be indoors and out of the drizzle and wind. Auction attendees were streaming in, and with them, a large number of quality items. It would be a long night. The final auction item fell under the gavel at around 11:30pm. Find out a lot more about the *Radiofest 2017* auction in the separate ARCI NEWS article “About The Auction” in this issue.

Saturday morning dawned beautifully and remained so for the rest of the day. I was very happy to see that Friday’s mist didn’t disturb our chalked sellers’ lot numbers and I could worry about other things. The swap meet area was extremely busy. Most sellers seemed happy with the level of activity for the rest of the day and virtually everyone gave a positive review of the facility. Around 8 AM, the friendly folks at the Shriners set up a concession stand with coffee and donuts. Many bleary-eyed attendees were glad to oblige. Later on in the morning, the Shriners switched the concession stand to lunch service, selling hamburgers, brats, chips and drinks—a pretty brisk amount of business went on at the stand between 11AM and 1 PM. We were really grateful to the Shriners for providing us with this service, since the only other options were either at the hotel restaurant or off premises.

The comments I heard from both sellers and buyers at the swap meet were very positive, though the afternoon's heat forced some of the tent-less vendors inside. As previously mentioned, the Shriners facility received a unanimous "thumbs up." Accessibility was great, parking was ample and close by, restrooms were easily accessed, and the food concession was a big hit.

This year's speaker programs were held in Room B at the Shriners facility. This is a classroom style space with room for about 60 people, making it an ideal venue for all of our presentations. Reports from attendees were positive and attendance averaged about 35 per presentation, a healthy turnout. Our three individual presentations covered a diverse range of topics, from crystal sets to vintage audio. And of course, our annual Bill Ross Memorial Ham Radio Forum carried on the tradition of Bill's past forums, being both enjoyable and informative.

Immediately across the hall from Room B was The Music Room. We used this large space to hold our combined Old Equipment Contest and our Special Display. Barry Janov managed the display, while Jeff Aulik concentrated on the equipment contest. We have much more detailed info for you on both of these *Radiofest 2017* events contained in separate articles in this issue of the *ARCI NEWS*. You can also check out some of the great contest and display photos in these pages as well as on our ARCI web site, www.antique-radios.org.

Our annual Carl & Carolyn Knipfel Awards Banquet commenced at 6:00 PM in the East Medinah Ballroom, with over 70 hungry people in attendance. After a long and occasionally stressful day, it was time to settle in for an evening of great food and drink, pleasant conversation and finally, a little bit of fun. The Medinah Shriners prepared an excellent meal of chicken and pasta for the group, and served it buffet style. The evening closed with a very entertaining performance by the popular Chicago area performance group: *Sweet Pepprika*.

Sunday morning greeted us with sunny and mild weather, and parking lot activity began to stir at around 7AM. The buyer and seller turnout was, as expected, much smaller than the day before. There was still enough activity, however, to make for an enjoyable Sunday morning swap meet. I walked the lot a few times myself and managed to resist any impulse buying during the final hours of *Radiofest 2017*.

At 9:30 sharp, Bill Cohn commenced our *Radiofest 2017* Donation Auction, with a respectable group of eager buyers in attendance. The auction pile had already swelled substantially from the previous day's contributions, but Bill spent the next hour or so skillfully working his way through the entire collection of "stuff" ultimately finding homes for nearly all of it. By the time he was finished, there was little left for the recycling company to remove, other than some old wood cabinets, cardboard boxes, and a few miscellaneous pieces of trash. Between items sold on Saturday and auctioned off on Friday and Sunday, the sale of donated items added an impressive \$2243 to the club's bottom line. Our sincerest thanks to Bill and Tom Kleinschmidt for a job well done and to all that donated items to be auctioned.

FIVE CLUBS MADE THE DIFFERENCE

Radiofest continues to have a national reach and typically attracts international participants. Our attendees this year included people from across the country. *Radiofest* is truly the product of five major clubs and volunteers that span New York to California. We thank each of these organizations and all our volunteers for their tremendous hard work!!



ABOUT THE AUCTION

The *Radiofest* Main Auction was once again a rousing success in 2017! Building on the foundation we had established for *Radiofest* 2016's highly successful auction, we decided not to tamper too much with the formula, and leave things pretty much the same for this year. We had already learned an important lesson last year about space requirements in the new venue, so we made sure to reserve all the possible space available in the ballroom for this year's event.

Our "seasoned" auction staff also returned, again, mostly unchanged from last year. Auctions of this size and scope are never easy to pull off, and we are very fortunate to have such an experienced and dedicated group of individuals to do the "heavy lifting" year after year. Nick Tillich continues to refine his data processing program to make the registration and payment processes work more efficiently each year. This year, these small refinements, aided by good weather and decent traffic conditions, allowed us to come very close to an on time auction start!

As always, Jim Sargent, our auctioneer, did a fantastic job calling the auction, efficiently gaveling his way through 229 lots in a period of about 4 hours. By the final gavel drop, Jim's efforts, and those of all our other volunteers, resulted in the second largest auction total in ARCI history, with total sales of nearly \$36,000!

Here are some key statistics from the auction. 134 persons participated in the auction this year. We had 52 persons who consigned lots, in line with the 55 last year and 54 in 2015. We had 229 lots consigned, down from 262 last year, but up from the 200 lots in 2015.

The average sale price was \$155, down from \$167 last year.

178 of the 229 lots consigned this year sold. That means that there were 51 no-sale lots this year, a no-sale rate of 22.2%, down from 25.2% last year.

The total sales were \$35,885. Here's how those figures compare with the past few years:

Year	Total Sales
2017	\$35,885
2016	32,900
2015	24,705
2014	37,783
2013	26,480
2012	25,300
2011	16,400

Compared to last year, there was a jump in items in the \$250 ~ \$499 category, which explains the higher sales over 2016. There were also fewer items in the \$50 and under category.

Hammer Price	Lots Sold 2017	Lots Sold 2016
\$500 or higher	14	14
\$250 ~ \$499	34	26
\$100 ~ \$249	45	48
\$50 ~ \$99	43	47
Less than \$50	42	61

Top 15 Lots	Hammer Price
Hallicrafters SX-88	\$2,000
Brandes Girl Display Head	1,900
Emerson Patriot Catalin Radio	1,400
Emerson Aristocrat Catalin Radio	1,100
Garod 6AU1 Catalin Radio	900
Marlboro Cigarette Tube and Transistor Radios	850
Emerson 411 Mickey Mouse Repwood Radio	800
RCA 9X3 Catalin Radio	700
Atwater Kent 10B Breadboard	675
Fender Twin Reverb Amp	600
Mazda 5 Lamp Display	600
Western Electric 7A Amplifier	575
RCA La Siesta 40X53 Radio	500
Deforest Audion Tubes	500
Bendix 526C Catalin Radio	490

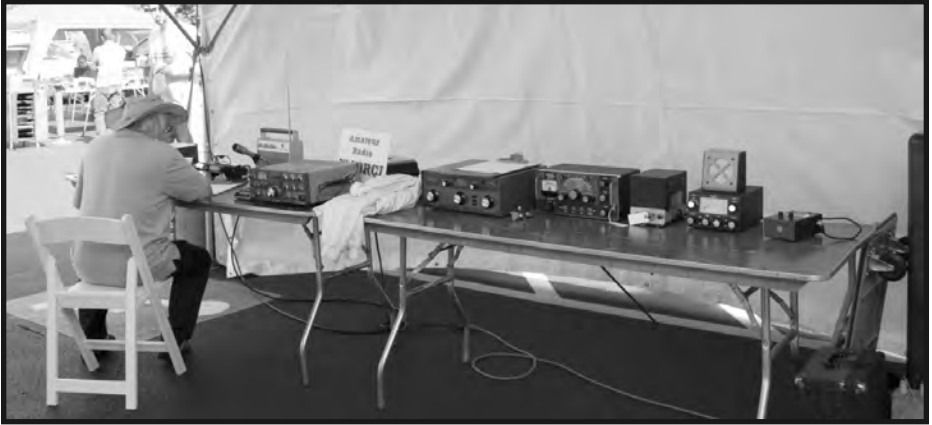
The total price of the top 15 priced lots was \$13,590, up from \$11,850 last year and \$9,645 in 2015.

Our sincerest thanks to everyone who participated in the auction, and helped to make it one of the most successful auctions in ARCI history. The auction proceeds will help to offset the costs of Radiofest, and will contribute to the financial stability of our club.



WA9RCI ON THE AIR AT RADIOFEST

Our annual Vintage Ham Station was set up once again at *Radiofest 2017*. The WA9RCI vintage ham radio station consisted of a very nice Multi-Elmac AF-68 and PMR-8 AM station and Heathkit SA-4020 antenna tuner provided by Ron Grams, WB9IMR; a Kenwood TS-830S SSB transceiver and Kenwood TW-4000 Two Meter FM rig plus two meter vertical from Jim Novak, WA9FIH; and a HF vertical antenna from Steve Muchow, K9AKS. More than thirty contacts were made, mostly to southern states. Other operators included Dale Svetanoff, WA9ENA, Chris Farley, KC9IEQ; and Bill Greenwald, KC9KLA.



The Radiofest 2017 Ham Station.

ANTIQUe RADIO CLUB OF ILLINOIS RADIOFEST 2017

WA9RCI

**QTH: Medinah Shriners Center
Addison Illinois DuPage County Grid EN51**

Operation on Aug. 4-5 on HF with a Multi-Elmac AF-68 & PMR-8 on AM;
Kenwood TS-830S on SSB; VHF FM, a Kenwood TM-621A with vertical antennas.

Confirming QSO with _____ UTC _____ Freq _____ Mode _____

QSL to 2335 South 2nd Avenue, North Riverside IL 60546-1308. Tnx & 73

ARCI's 2017 QSL Card.

GRATEFUL RECOGNITION

Each year, ARCI tries to thank all those who contributed to the success of the club. It takes the efforts of many people to make our club function. On behalf of the ARCI Board of Directors and the membership, congratulations to everyone for their many contributions in achieving a very successful year for ARCI and an outstanding *Radiofest 2017!*

RADIOFEST WINNER'S CIRCLE EQUIPMENT CONTEST WINNERS

Radiofest held its annual Old Equipment Contest in August under the direction of Jeff Aulik and Barry Janov. Many great entries were submitted and quite a few rare items were on display. Congratulations to everyone on all the fine entries, and of course, congratulations to the winners!!

Dr. Ralph Muchow Best of Show Award

Michael Feldt: C.E. Hallen Leutz C-7

People's Choice Award

Tom Burgess: Superior Grande Speaker

Chairman's Award

Tom Burgess: Superior Grande Speaker

Best Historical Display Award

Rudy Hecker: Collection of Advertising Premiums

Radios & Apparatus Pre-1930

- 1st - Michael Feldt, C.E. Hallen Leutz C-7
- 2nd - Jim Novak, Homebrew Crystal Radio
- 3rd - Bill Ballard, Freshman Masterpiece

Radios & TVs 1930-1945

- 1st - Tom Burgess, Ten Different Depression-Era Radios
- 2nd - Bob Sands, Coronado 767 with Original Box and Literature
- 3rd - Jeff Aulik, Stewart Warner R123 Cathedral

Advertising and Premiums

- 1st - Rudy Hecker, Collection of Advertising Premiums
- 2nd - Bob Dobush, Magnavox Advertising Shield
- 3rd - Harvey Mattel, Brandes Earphones Display "Head"

Speakers

- 1st - Tom Burgess, Superior Grande
- 2nd - Dale Boyce, YAR Yahr-Lange
- 3rd - Jay Volke, Wayland Easel Speaker

Vacuum Tube Audio

- 1st - Tom Burgess, WWI BC44A Ground Communication Device

Open Category

- 1st - Jay Volke, Svengoolie Knife Switch
- 2nd - Bob Dobush, Jewell 566 Sound Equipment Analyzer
- 3rd - Bob Dobush, Early Tube Caddy with Blue and Gold Tubes

RADIOFEST SPECIAL DISPLAY POST WORLD WAR II ELECTRONICS

This year there *Radiofest* hosted a wonderful display about post World War II Electronics. The exhibit included transistor communications items, military communications, Hi-Fi and stereo, related items from famous news stories and other events, and interesting original documents and advertising items. Some of the historic items included:

- Early postwar FM
- Test equipment for postwar TV
- Significant postwar tape recording equipment
- First wireless TV remote control
- Samples of discrete semiconductors and subminiature tubes
- Early hearing aids using subminiature tubes
- Postwar subminiature tube radios
- Regency TR1—the first American made transistor radio
- Philco Safari—the first American made transistor TV
- Early imported radio and TV sets
- Samples of final developments in vacuum tubes
- Early portable color TV
- First consumer electronic product to use an IC

Many items had documentation, including newspaper or magazine articles and original equipment instructions and photos.

The following people also brought their own items for display: Al Jochem, Ed Huether, Art Bilski, Bill Ballard, Barry Janov, Jim Novak, Al Germond, Jeff Aulik, and John Reinicke. (I am certain that I am forgetting someone—forgive me.) Thank you to all who participated in putting together this outstanding commemorative display. Additional photos are available on the ARCI website at www.antique-radios.org.



RADIOFEST CONTEST PHOTOS









HISTORY ZONE

By David Bart

[EDITOR'S NOTE: It has been awhile since we covered television. Thanks to Kris Trexler, we bring you a discussion about the RCA TK-40/41 Color Television Camera. Kris has compiled numerous contributions including descriptions, photos, video clips, and scrapbooks from a number of collectors on his website that we have modified for a print publication format. For more information see <http://www.kingoftheroad.net/colorTV/TVcams-in-action.html>]

RCA'S TK-40/41 COLOR TELEVISION CAMERAS

The TK-40 and its modified successor, the TK-41, were the first television cameras able to broadcast live color images. Beginning with the *Colgate Comedy Hour* on November 22, 1953, these camera were in wide use at TV network and affiliate studios, as well as independent TV production facilities through the 1960s. The RCA TK-40A service manual printed in 1954, described RCA's first color camera (Note: the RCA color system became known as the NTSC system. Introduced in 1953, it is the system still in use in the U.S.A. It will become obsolete as digital broadcasting completely replaces NTSC transmissions after 2007):

The RCA Color Camera (MI-40500) is a live pick-up camera used to separate a color image into its primary red, blue, and green component images and convert them to signals required for the RCA color television system.

The color camera contains a light splitting system, three image orthicon tubes, horizontal and vertical deflection circuits, target blanking circuit, high voltage circuit, image orthicon protection circuit, and three video preamplifier circuits, one for each of the three color channels.



The power and signal voltages are conveyed to and from the camera by means of three standard 24 conductor camera cables. The cables are attached through connectors located under and to the rear of the camera housing base plate.

Filament voltages are supplied from two transformers housed in the camera. Each transformer is adequately fused.

Control handles project from the rear of the camera. These handles are used for the control of panning and tilting motions of the camera. The handle on the right is also used for focusing the camera optical system.

A hinged hood ahead of the viewfinder on the top of the camera housing offers accessibility to parts of the optical system. The camera filament transformers, elapsed time indicator, and the viewfinder power and signal terminal connections are also accessible beneath this hood.

The side door panels of the camera housing swing outward making all components readily accessible for servicing.

Two sets of communication and program sound jacks are mounted on a strip installed below the back (operating) panel of the camera. They provide a means of setting up communications between the camera operator, dolly operator, camera control operator, and the program director, etc.

The utility outlets and a fuse are mounted on the underside of the back end of the camera. They provide facilities for an independent source of ac that may be used for test equipment when the camera voltages are turned off.

Two tally lights are mounted on the front face of the camera. These lights serve to indicate to the actors when the camera is in actual use. In addition, there is one tally on top of the viewfinder for directors and one on the kinescope bezel plate for the operator. The latter are operative, however, only when used in conjunction with a camera switching unit. These lights are normally off until a tally relay is activated by a control voltage (24 volts dc).

The individual image orthicon tubes and the area within the camera housing are air cooled. All external areas of the camera and viewfinder which are subject to absorption of radiant heat energy have an aluminum finish to further aid in maintaining optimum temperature conditions within the camera.

OPTICAL SYSTEM

On the front of the camera there is a rotatable lens turret. This turret accommodates four objective lenses of different focal lengths. Normally Ektar lenses having focal lengths of 50, 90, and 135mm are used. The fourth position may be used to mount a telephoto lens. If any of the four positions is not used, a blank cover should be inserted in the lens port. The turret is attached to a shaft that protrudes through a stationary drum. The drum serves as a light trap as well as a support for the lens turret shaft. The field lenses are mounted on a "spider" support housed within the drum. The objective lenses and the associated field lenses rotate integrally when the lens selector shaft is turned. This lens selection is achieved by means of a handle type manual control on the back panel of the camera.

MECHANICAL SPECIFICATIONS

Length: camera-44", viewfinder 34-1/8", Width: camera-21", viewfinder 13-15/16", Height: camera-14-1/2", viewfinder-11-1/8", Weight: camera-250 lbs. (less objective lenses, panning and focus handles), viewfinder-45 lbs.



TK-41s at KMTV-TV Omaha, Nebraska (1957).

(Note: racks of control equipment were located in a remote control room where color and brightness adjustments were constantly monitored and adjusted by a Video Control operator).

To see a video clip from NBC's Wide Wide World showing TK-41s at KMTV-TV - Omaha, Nebraska - September 1957 (a Quicktime Player version 6 or later is required), go to <http://www.kingoftheroad.net/colorTV/KMTVcolorcamera1957.html>. This kinescope recording was made in September 1957 before video tape recording was in common use. This show was NBC's weekly series Wide Wide World, an in-depth soft-news program with innovative (at the time) live remote segments from around the nation and the world.

The program was hosted by Dave Garroway. The subject of this Wide Wide World broadcast was television production. Surprisingly, CBS and ABC are also featured in the episode. This segment switches to NBC's affiliate in Omaha to showcase their color facilities. This segment switches to NBC's Color City studios in Burbank, California to see a rehearsal of NBC's daily afternoon series *Matinee Theatre*, a live color broadcast of one hour plays.



TK-41s at NBC Color City Burbank, CA (1957).



Miss Color TV poses for early RCA color cameras.



RCA Petition to the FCC For Approval of Color Television Standards in 1950.

RCA presented a series of demonstrations of their compatible color television system before the Federal Communications Commission between 1950 and 1953. To see a video of early color TV clips edited to the soundtrack of a circa 1951-52 RCA color TV demo to the FCC, go to <http://www.kingoftheroad.net/colorTV/FCCmontage.html>. You will hear a small portion of the July 31, 1950 presentation (abbreviated for this web clip from the original 7 minute 78rpm phonograph transcription). In earlier demonstrations to the FCC, the RCA color system required a special filter be placed in front of the TV set to obtain proper color rendition. But this important July 31, 1950 demonstration was the first to show direct viewing of the color picture without the need for the impractical filter. The affair was obviously lighthearted, although the moderator's speaking style was not well suited to delivering the wacky material written for him. The "Dr. Engstrom" referred to in the song pioneered the RCA compatible color system, still in use in the U.S. today. Also, note the jab at CBS and their competing, non-compatible color system. The visuals in this video are not directly related to the FCC presentation you hear. I edited this clip from various films and videos that were either donated or purchased for my collection.

See <http://www.kingoftheroad.net/colorTV/FCCmontage.html>



Behind the scenes at "Matinee Theater" - NBC Color City Studio 4 - Burbank, CA.



Dale Walsh flying a TK-41C on a crane for ABC-Hollywood in the 1960s.



Dale Walsh shooting for ABC Sports on Venice Beach, late 1960s.



Judy Garland makes her television debut from Television City in Hollywood September 23, 1955 in a rare live CBS color show, "Ford Star Jubilee," doing the same review she did in the New York Palace Theatre and the London Palladium. She insisted on a live audience.



Judy Garland on the set of the Ford Star Jubilee, 1955.



TK-41 in use during a 1960s Hallmark Hall of Fame production at NBC studios in New York. Note the kludged viewfinder hood. It is quite common to see the stock RCA-supplied viewfinder snout either removed or replaced by a different hood more to the liking of the camera operator.



Dean Martin at NBC Color City circa late 1960s - Burbank, CA.



On the set of "The Dean Martin Show" Studio 4 - NBC Color City, 1965 - Burbank, CA (photo taken by Bruce Bonnett).



TK-41 on the set of "Major Astro," an afternoon children's program at NBC affiliate KARD-TV, Wichita, Kansas. Snapshot was taken in 1964.



Let's Make a Deal with Monty Hall NBC Color City - Burbank, CA.



The TK-41 formerly in service at WGN-TV on display at the Museum of Broadcast Communication, Chicago, IL. This was the original camera used the Kennedy-Nixon presidential election debates on September 26, 1960 in Chicago.



Let's Make a Deal with Monty Hall NBC Color City - Burbank, CA.



"The Tonight Show" 1963 with substitute host Joey Bishop and guest Andy Williams.





TK-40A cameras colorcasting at WTMJ-TV, Milwaukee, WI.



"Bozo the Clown" at WHDH-TV, Boston, MA.



TK-41s colorcasting the Tournament of Roses Parade - Pasadena, California - January 1, 1958. There are at least four TK-41s in this photo. The cameras on the upper platform have NBC chimes logos on them, however the two TK-41s on street level do not have NBC logos - these are probably KTLA, Channel 5's cameras - KTLA began colorcasting the Rose Parade in 1955.



Another photo from the Rose Parade - January 1, 1958. This is probably a KTLA, Channel 5 camera.



"Mr. Television" himself, Milton Berle, poses with a TK-41. Looks like Uncle Miltie is pretty excited about being seen in Living Color for the first time!



Another shot of Milton Berle at NBC.

In late 1940s and early 1950s, RCA was continuing to develop their color television camera (which eventually became the TK-40 introduced in 1953). Notice the script on the side of the camera says “RCA Television (versus the TK-40/41 which had a “Color Television” script). Also, the camera is black (versus the silver colored TK-40/41), and there are no vents in the viewfinder on top of the camera. The TK-40/41 tapers to a narrower width at the front, where as this prototype has flat sides with no taper. I would speculate that the production camera used a silver color to reflect the heat which would have been absorbed by a black camera. After all, the early color cameras required a LOT of light - without plentiful air conditioning, the studios would be unbearably hot and the cameras would suffer performance problems from overheating. This would also explain the slotted vents which appeared in the TK-40A and TK-41 cameras.



TK-40 assembly line, 1954. On the right rear of the camera body, the split, circular opening is an air vent for one of the image orthicon pickup tube. There are two additional vents on the rear of the camera.

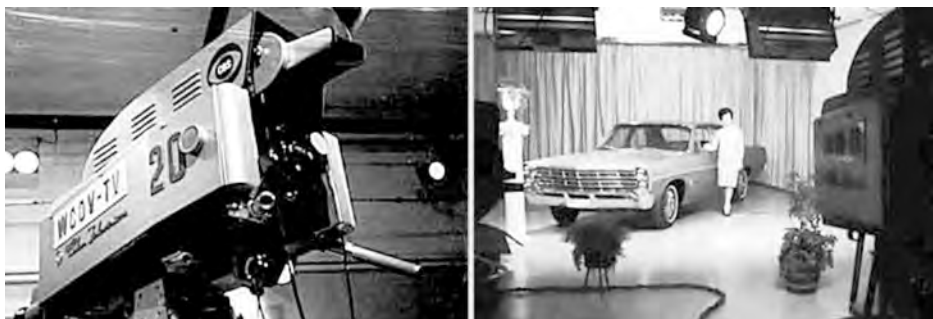
The last incarnation of the TK-40/41 series was the TK-41C. A photo is from the May 1962 issue of RCA Broadcast News shows the camera at the 1962 NAB (National Association of Broadcasters) convention stating, “TK-41C color TV camera, standard of the industry. New features for 1962 include stabilized circuits for simplified operation, precision yokes for precise registration, and prism optics for sharp clear color pictures.”



A TK-41C at the 1962 NAB (National Association of Broadcasters) convention.



On the set of “Treasure Chest” at KSTP-TV, Minneapolis-St. Paul – 1962.



WCOV-TV 20 in Montgomery, AL.



*Reeves Television Tape Service Center,
New York – 1962.*

The successor to the TK-41 line was the TK-42 color camera. The TK-42X experimental camera and a TK-60 monochrome camera were shown at the 1962 NAB convention. “One of the first sights to greet visitors to the RCA exhibit was the operating live TV studio and an introduction to a new generation in broadcast equipment.” RCA’s new TK-42 “M-channel” color camera used three color (RGB) vidicon pickup tubes, and the TK-42 added an image orthicon monochrome fourth tube.



The TK-42X experimental camera and a TK-60 monochrome camera at the 1962 NAB convention.

Chris Trexler noted, based on his experience, that the TK-42 produced inferior pictures to the TK-41. The images were noisy (grainy), and most irritatingly, the built-in zoom lens produced erratic zooming motion. The zoom was operated by a crank on the rear of the camera similar in appearance to the old turret handle on the TK-41. It must have been awkward for the operator to zoom with this type of control, and the mechanical cable connecting the zoom control handle to the lens was subject to binding, invariably creating jerky, chattering zooms. A rear view shows the infamous U-shaped lens controls on the back of the camera. Left handle is focus, right is for zoom motion. Chattering zoom motions plagued the TK-42 from the beginning. The next model, the TK-43, was basically the same as the TK-42, but with a new approach to zoom and focus controls. NBC chose not to install TK-42/43s in their network operations. NBC’s old TK-41s continued to produce superior pictures into the early 1970s, partially due to modified low-noise transistorized pre-amps.



The production TK-42 color camera.

The RCA TK-44 was finally a worthy successor to the TK-41. The TK-44's plumbicon tubes produced rich, crisp, clean color images. NBC network facilities finally replaced their TK-41s with these excellent new cameras.



RCA's color camera lineup in 1967 shows the oft-maligned TK-42 and 43 cameras and a pre-production mockup of the far superior TK-44.





photo courtesy: Tom Kredatus

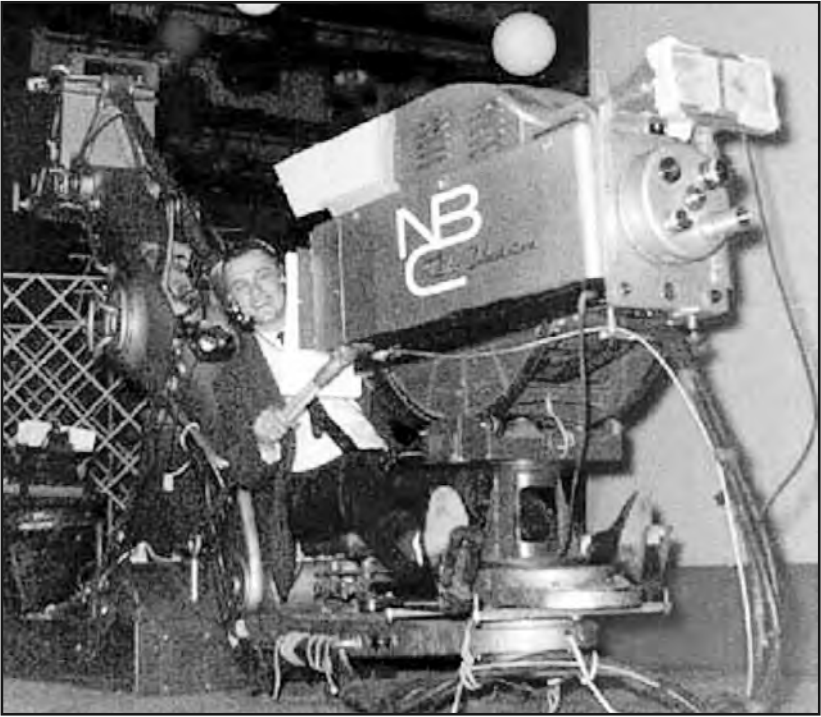
RCA's broadcast equipment line in 1967 shows a mockup of a pre-production TK-44 camera in the foreground.



The RCA TK-44 at WTMJ-TV Milwaukee.

There is much more information available with links at <http://www.kingoftheroad.net/colorTV/TVcams-in-action-2.html>.

- Learn more about the Color Television Revolution.
- Videos of the original NBC peacocks and ABC and CBS color presentation logos.
- Photos from my boyhood tour of KARD-TV in 1964.
- Photos of NBC Color City Studios in Burbank, California in 1955.
- Photos of Chris Trexler's TK-41 color television camera.
- A tour of KSTP-TV in 1962 and see my TK-41 camera in service when it was new.
- An RCA 2" Color Television Tape Recorder.
- A video montage of an historic demonstration of the RCA compatible color system to the FCC.
- An excellent 1953 RCA brochure about the development of Color Television.
- Watch the oldest surviving color videotape...the dedication of NBC's Washington, DC color studios in 1958.
- Watch An Evening With Fred Astaire the oldest surviving color videotape entertainment program - November 1958.
- Watch the oldest surviving videotape recording The Edsel Show - October 1957.



Jan Kasoff using a TK-41 at NBC's Brooklyn, New York studios in the 1960s. Note the cardboard viewfinder hood attached with masking tape. Obviously, NBC operators were not fond of RCA's stock viewfinder snout! Also, supplemental fill lights are attached to the front of the camera. Lights similar to these are still in use today to add sparkle to the eyes and fill in facial wrinkles.

Want to read more about early color television? Links are available for:

- NPR's coverage of color TV's 50th anniversary.
- The late Ed Reitan's website - a very informative site about early color TV.
- Bobby Ellerbee's fascinating and comprehensive television history website *Eyes Of A Generation*.
- Chuck Pharis' site to see his collection of antique TV cameras and other early broadcast equipment.
- Barry Mishkind's website to see the RCA Television Equipment Archive.
- Steve Dichter's CT-100 website to see Steve's vintage color television page.

Thanks to Chuck Pharis, Rich Whitley, NBC, Dale Walsh, Jan Kasoff, Ed Ellers, Barry Mishkind, Lytle Hoover, Tom Kredatus, Chuck Young, and Robert Ingram for some of the photos used in the Trexler website. Special thanks to Charles Phoenix for the slides from his collection of the 1958 Rose Parade. And, special thanks to Chris Trexler for the use of his website material.

Do you have TK-41 photos and information to share or comments? Please contact Kris Trexler at colorTV@mac.com.

RADIOFEST PHOTOS



BUSINESS CARD ADS

We invite all of our members to scan and send in your business card to be included in ARCI NEWS. For \$80 your card will appear in the next 6 issues! Your card will be seen by approximately 400 people per issue and up to 1,000 people at Radiofest where we make additional copies of ARCI NEWS available at no charge. If interested, please scan your card and send it to jbart1964@gmail.com and mail a check for \$80 to Rudy Hecker, ARCI Treasurer, 127 Weymouth Court, Schaumburg, IL 60193. Thank you all for your continued support of ARCI!!!

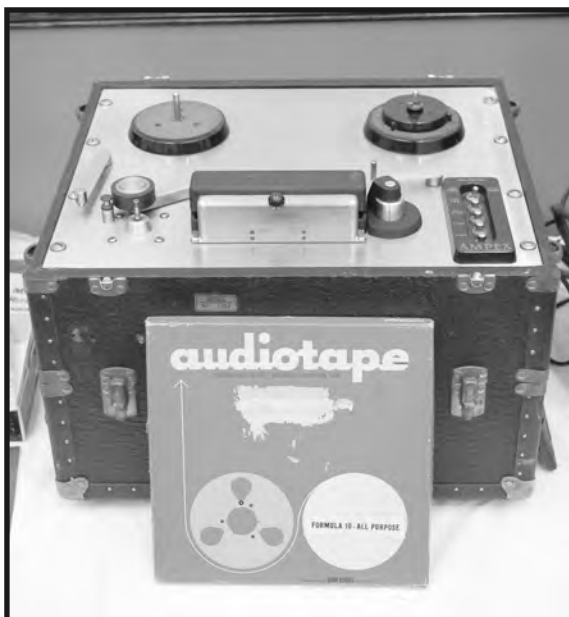


The business card features a vintage-style illustration of a radio on the left and a photograph of electronic components (a capacitor and a resistor) on the right. The text is centered and reads:

Just Radios
Capacitors & Resistors for Tube Radios

David and Babylyn Cantelon
6 Ferncrest Gate, Scarborough
Ontario, Canada, M1W 1C2

www.justradios.com
justradios@yahoo.com
(416) 502-9128



CLUBBING AROUND

ANTIQUÉ WIRELESS ASSOCIATION

The AWA will hold its annual membership and board meetings on Sun., Nov. 5 in the Conference Center (across the street from the museum) at the AWA's Antique Wireless Museum complex at 6925 Routes 5 & 20 (intersection with Rt. 444) in Bloomfield, NY. All members are welcome. The AWA, our national affiliate, publishes the AWA Journal and the AWA Review. Dues are \$35 per year. For more information, please see www.antiquewireless.org.

WISCONSIN ANTIQUE RADIO CLUB, INC.

The next WARCI meeting will take place Sun., Nov 5 at "The Terminal", located at 5917 South Howell Street in Milwaukee near the airport from 7AM-11AM. For information see www.warci.org.

NORTHLAND ANTIQUE RADIO CLUB

The NARC Fall Indoor Swap Meet will be Nov. 4. For information, please see <http://www.northlandantiqueradioclub.com/index.shtml>.

MICHIGAN ANTIQUE RADIO CLUB

MARC's Vintage Electronics Expo will be held in January 2018. For more information on the schedule for MARC's Vintage Electronics Expo please see <http://michiganantiqueradio.org/events/>.

INDIANA HISTORICAL RADIO SOCIETY

The IHRS Fall Foliage Meet will be on Oct. 14 at 8:00am at the Riley Park Shelter, Greenfield, Indiana. (One block north of US40 on Apple Street.) For more information please see <http://www.indianahistoricalradio.org/ihrsched.htm>.





ARCI NEWS

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