

# The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

July 2023

Volume 29 Issue 7



The *Jersey Broadcaster* is distributed to members of the New Jersey Antique Radio Club via email as a PDF file. Back issues of many of our newsletters are available on the club's website:

[www.njarc.org/broadcaster/](http://www.njarc.org/broadcaster/)

## Meeting Notice

Our July meeting will be held on Friday, 7/14 at Princeton University. The Tech Talk will be about test equipment for the vintage electronics restorer, by our Technical Coordinator Al Klase.

For our non-local members and anyone else who is unable to make it to Princeton in person, the meeting will also be livestreamed on Youtube at <http://www.youtube.com/@njarc>.

## Meeting Review

Our June meeting, although somewhat lightly attended, offered an unusually wide assortment of show-and-tell items and sharing of hints-and-kinks restoration ideas.

President Rich Lee showed a scrapbook of news clippings that someone put together for the year of 1939. Nevell Greenough brought in a borrowed meter that measured a person's exposure to RF energy and made a short presentation on the new FCC regulations requiring amateur radio operators to monitor the RF fields of their equipment.

(Continued on next page)

## From the President's Workbench

Greetings Fellow Enthusiasts.

The Last Word on SMD!

Who collects Antique Clock Radios? What?? Clock radios! No one collects clock radios in the NJARC. Well, some members do and the reason they do is "Style." Mid Century Modern Style.

But they are not "antique" radios! A 65 year old Zenith model Z519V clock radio is not an Antique? Ok, let's call it a "Classic Mid Century" radio, and there is a large following of people now collecting everything Classic Mid Century! They collect furniture, clothing, furnishings and radios from the 1950s to early 1960s.



## Calendar of Events

Check the calendar on our website for the latest information about upcoming events. Some key dates are:

- July 11: DVHRC meeting, Telford PA
- July 14: NJARC meeting, Princeton
- July 15: JD Auction, Jackson NJ
- July 16: Sussex Hamfest
- July 22: NJARC Summer Swapmeet/Hamfest, InfoAge
- July 28: HARPS meeting, Suffern NY
- August 11: NJARC meeting, Princeton University
- August 18: HARPS meeting, Suffern NY
- August 19: NJARC Summer Repair Clinic, InfoAge
- August 26: InfoAge Classic Car Show
- September 8: NJARC meeting, InfoAge
- September 14-16: Kutztown Radio Show
- September 22: HARPS meeting, Suffern NY
- September 26-30: AWA Conference, Henrietta NY
- October 7: BARA Hamfest, Westwood NJ
- October 13: NJARC meeting, Princeton NJ
- October 20: HARPS meeting, Suffern NY
- November 10: NJARC meeting, Princeton NJ
- November 18: NJARC Fall Swapmeet, Parsippany NJ



Zenith model Z-519V ...Pretty in Pink but with SMD!

So how does this affect our buying, selling, and restoring of antique/classic radios? One word: SMD. OK, that's really an acronym, for Silver Mica Disease! Most of these radios have SMD or will have it in the near future. We all know what SMD is, but here is a comprehensive explanation found on the Antique Radio Forum from "Silent Key Leigh" posted some years ago.

(Continued on next page)

**THE JERSEY BROADCASTER** is the newsletter of the New Jersey Antique Radio Club (NJARC) which is dedicated to preserving the history and enhancing the knowledge of radio and related disciplines. Dues are \$25 per year and meetings are held on the second Friday of each month either at InfoAge or at Princeton University. Neither the editor nor NJARC is liable for any other use of the contents of this publication other than for information.

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## President's Workbench

(Continued)

However, this conductor has a miniscule cross section, and instantly opens like a fuse as soon as fault current begins to flow. Then you're back to leakage current and plating action until the gap is bridged and the cycle repeats. This closing and opening of the silver bridge can happen quite rapidly, and cause noise when it occurs.

This phenomenon can occur in any silver mica capacitor, although it is more likely in open ones such as those found molded into the bottom of IF transformers. In these the bridge occurs between the capacitor on the primary side and the one on the secondary, which are physically adjacent. The primary cap has B+ on both electrodes, while the one on the secondary has ground potential (approximately) on both sides.

The only application in which DC potential appears across an individual capacitor is in bypassing, and silver mica caps are not normally used for this purpose. However, the same problem can occur with lower potentials, and failures have been in micas used in tuned circuits."

So what is the remedy for removal of the SMD in these IF transformer cans?

The photos on the next page illustrate my way of curing the problem without potentially damaging the internal structure of the IF transformer.

**YouTube video sources for SMD remediation:**

[Radio Wild: "Cheap GE Radio with Silver Mica Disease Fix"](#)

[Shango066: "IF Silver Mica Disease Capacitor Value Identification"](#)

[BandersenTV: "Silver Mica Disease in Vintage Radios and TVs"](#)

[Radio Rescue: "Repairing a Zenith model 1X52 Radio With Silver Mica Disease"](#)

## Meeting Review

(Continued)

Leo Assur showed a Russian radio that he obtained on a trip to Latvia, while Bob Bennett brought in an LP record by... Bob Bennett. Jonathan Allen displayed some homebrew RF monitoring devices he had designed. Dave Sica showed off a wristwatch TV from the 1980s, while Mike Littman presented a Ford radio (but not a radio from a Ford automobile, a radio in the shape of an old Ford.)

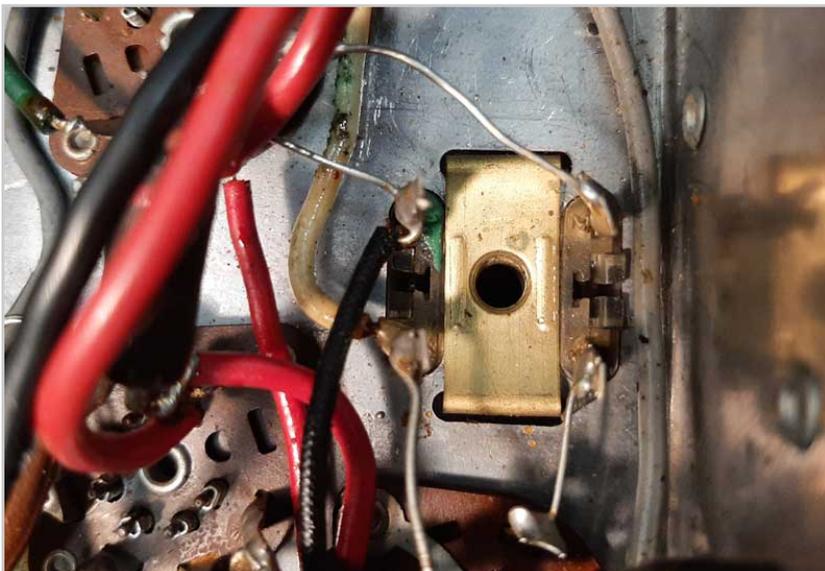
Ted Copp brought in a recent vintage camera find and a NOS Sangean radio with cassette deck. Bill Zukowski did a Hint-and-kink and a show-and-tell: he built a device using a photodiode to check whether IR remotes were working or not. For show-and-tell, Bill showed a Soviet professional broadcast studio radio from 1985 that used germanium transistors.

Jon Butz Fiscina showed a selection of experimental loctal tubes made not by Sylvania but RCA. Jon also showed a "Cathedral" radio that wasn't what you'd expect. It was a square wooden box radio by Wilcox Labs "Cathedral" model. Matt Reynolds' kink was how to use dental floss picks and contact cleaner to clean oxidized tube socket pins. And finally, "Johnnytronics" (John Ruccolo) displayed a trio of different iterations of Hallicrafters S38s.

A recording of the presentation and others is available on our YouTube channel: <http://www.youtube.com/@njarc>.

## President's Workbench

(Continued)



A typical mid-50s IF transformer "can".  
Take pictures before removal!

Index the can and internal transformer with a  
marker to it's original position in the radio.



Use pliers, duckbill is the best, to bend back the  
aluminum retaining tabs and remove the trans-  
former being careful of the four hair-thin trans-  
former leads.

## President's Workbench (Continued)



Again, remember to index the transformer as it slides out of the can using a black marker.

Look for the two SMD capacitor sections through the clear plastic mounting base.  
Carefully hold the transformer down on a rubber/foam type thin surface



Use a rotary tool. Even a small one from Harbor Freight that's powered by a wall wart will do. Don't be scared by the high rpm of the tool, it has very little torque.

Install the abrasive cutting wheel, carefully hold the body of the transformer in one hand and the switched on tool in the other.

## President's Workbench

(Continued)



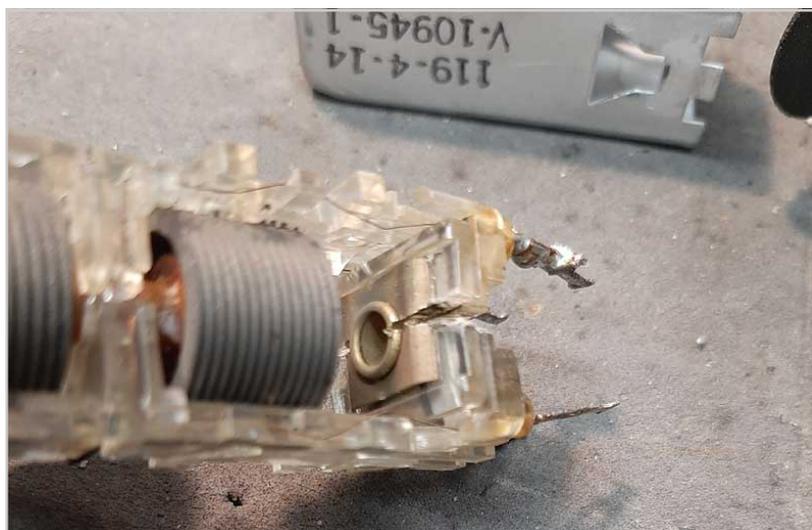
Firmly holding the tool perpendicular to the criss-crossed capacitor plates, cut down through the plastic base and through the capacitor plates. Slowly work the cutting wheel down just cutting into the lip of the rivet. Follow the same procedure on the opposite side.

After a visual inspection, use your VOM across the leads to show transformer resistance but no capacitance. You can now carefully (again) re-install the transformer into its can and into the radio.

This less intrusive procedure, without rivet removal, was simple and did not compromise the delicate structure of the IF transformer!

Try to cut through the plastic base slowly, as not to melt the plastic.

Make your visual inspection and notice the cutting wheel correctly just cut into the rim of the retaining



After reinstallation of the IF can, and rewiring, (I hope you took photos!) it's time to install new below-chassis capacitors. As you know, very very few radio schematics give capacitance values for IF transformers. So it's a science experiment to find the correct capacitors.

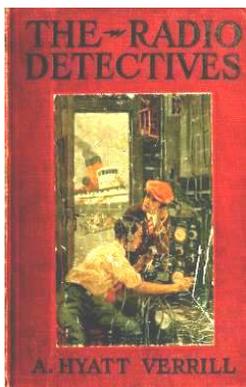
As per the [Nostalgia Air Forum](#), 455 kHz frequency radios having SMD, the original capacitor for the primary winding can be replaced with a 90pf unit and the one for the secondary winding with a 150pf capacitor.

In the list of YouTube references, [Shango066](#) "dials in" each transformer with a variable trimmer capacitor!

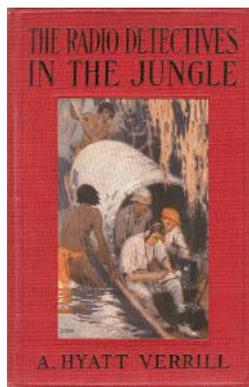
## Collecting Juvenile Communications Fiction

By Marsha Simkin (Continued from previous issue)

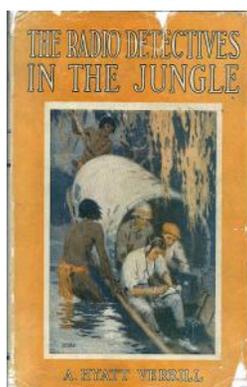
**The Radio Detective** series by A Hyatt Verrill who authored the popular book, the Home Radio among others, were all published in 1922. Each had a story related paper picture applied to a red cloth cover. Dust jackets with the same illustrations were also issued. The series was published by D Appleton and Co of New York and London.



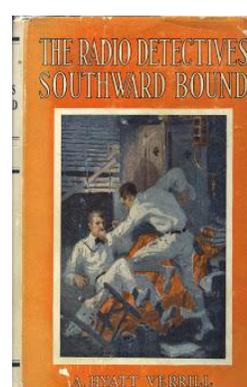
The Radio Detectives



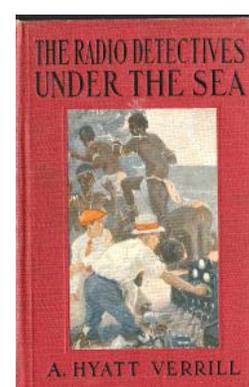
The Radio Detectives Under the Sea



1922

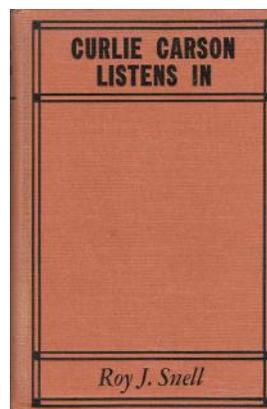
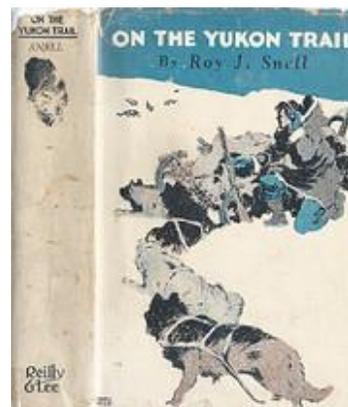
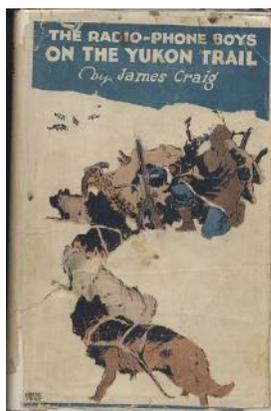


The Radio Detectives Southward Bound 1922



The Radio Detectives in the Jungle 1922

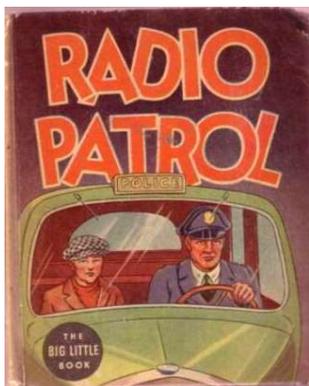
**The Radio-Phone Boys** series was authored by Roy Snell under his own name or as James Craig, his pseudonym. The series was written between 1922 and 1928 and had at least eight titles. Although Curlie Carson remained the hero of this series, some of the later books had little to do with radio and were also known as the Mystery Series for Boys. The books were issued in several editions some of which never mention the Radio-Phone Boys. The covers appear in many colors and have dust jackets are illustrated with pictures related to each book. The series was published by Reilly and Lee of Chicago.



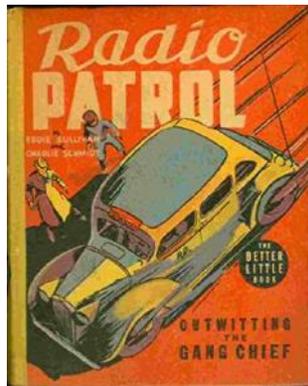
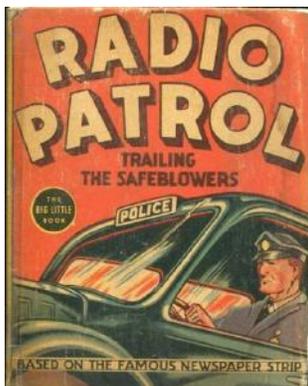
(continued on following page)

**Collecting Juvenile Communications Fiction**  
(Continued)

The **Radio Patrol** series was a set of four Big Little Books written by Eddie Sullivan and Charlie Schmidt. Big Little Books were first published by the Whitman Publishing Company of Racine, Wisconsin. They were small, compact books designed with a full-page black-and-white illustration opposite each page of text. They measured about 4 1/2 inches tall by 3 5/8 inches wide and 1 1/2 inches deep. The books were produced using excess paper trimmed from magazines. -- paper that would otherwise have gone to waste. Around 1937 Big Little Books became known as "Better Little Books," which remained in operation through the early 1950s. They were priced initially at 10¢ each. This series was published by Whitman between 1935 and 1940.



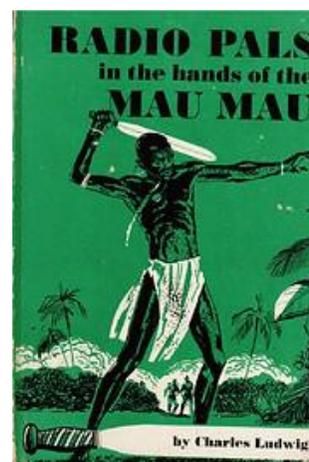
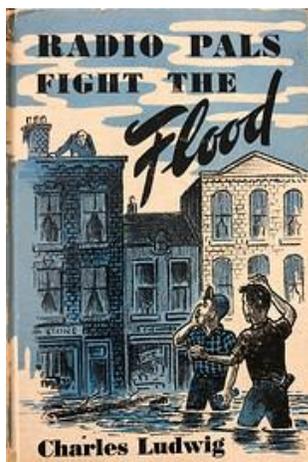
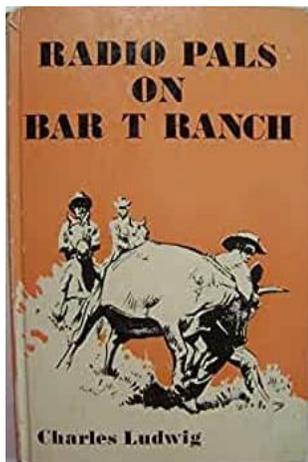
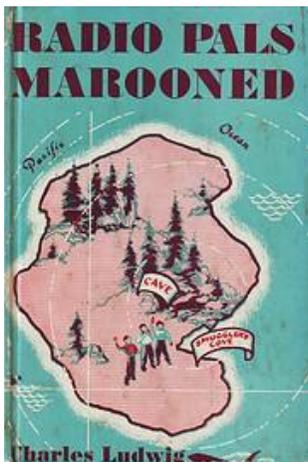
Radio Patrol 1935  
Radio Patrol Trailing the Safeflowers 1937



Radio Patrol Outwitting the Gang Chief 1939  
Radio Patrol and Big Dan's Mobsters 1940

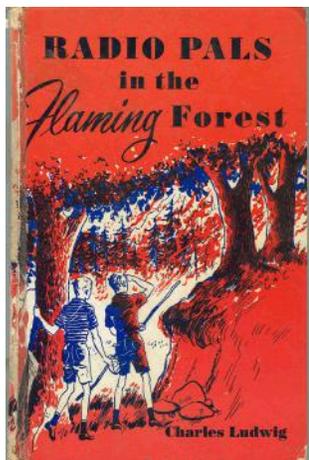


The **Radio Pals** was a later series that was distributed through religious organizations as a prize or incentive. The series was written by Charles Ludwig and was issued with pictorial paper covers. Five titles were known to be published. An additional title, Radio Pals and the Mysterious Invention was mentioned but there is no evidence that it was ever issued. The series has many religious references and was published by Van Kampen Press, Wheaton, IL and Zondervan Publishing, Grand Rapids, MI between 1952 and 1955.



**Collecting Juvenile Communications Fiction**  
(Continued)

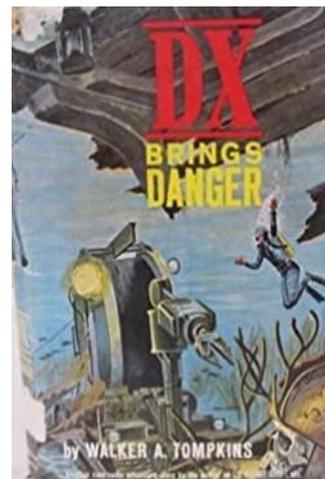
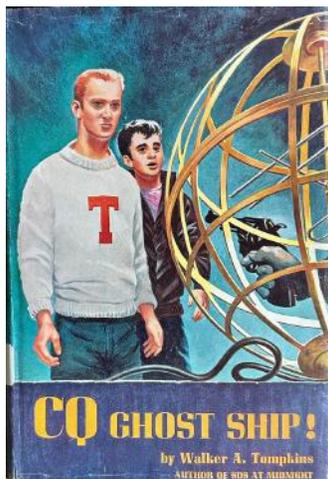
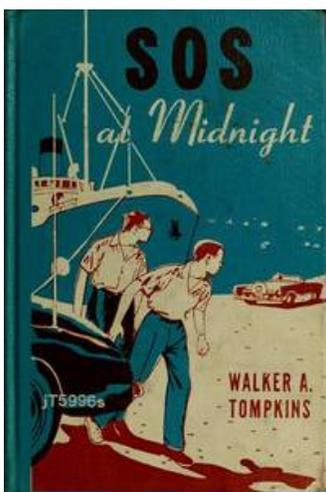
**Radio Pals** (continued from previous page)



Radio Pals Marooned	1952
Radio Pals on Bar T Ranch	1953
Radio Pals Fight the Flood	1953
Radio Pals in the Hands of the Mau Maus	1954
Radio Pals in the Flaming Forest	1955

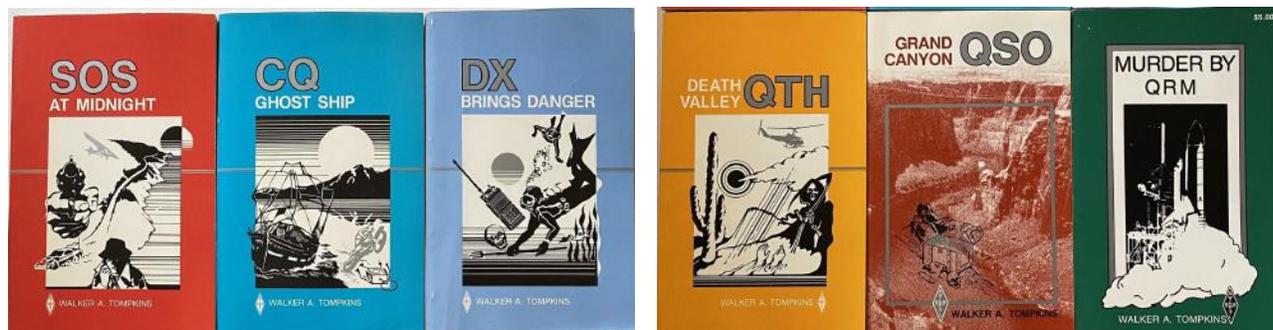
The **Tommy Rockford** series is about a high school student who has a General Class amateur radio license. It was authored by Walker Tompkins who may be better known in literary circles for his books about the California hills, the flora and fauna of the region and a biography of Roy Rogers. In the first book, *SOS at Midnight*, Tommy uses his knowledge of ham radio to save lives and break up a group of gangsters. The series was first published by Macrae Smith of Philadelphia from 1957 to 1962. Some were published again by Sagamore in 1971. The series was updated by the author in the 1980s with new titles being added. This was done through the ARRL.

SOS at Midnight	1957	CQ Ghost Ship	1960	DX Brings Danger	1962
Death Valley QTH	1985	Grand Canyon QSO	1987	Murder by QRM	1988



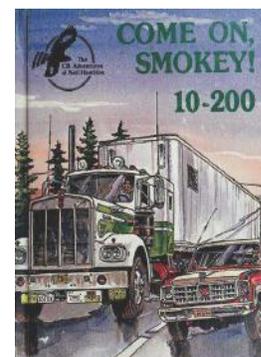
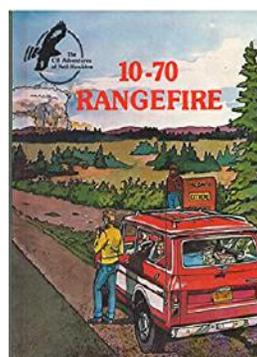
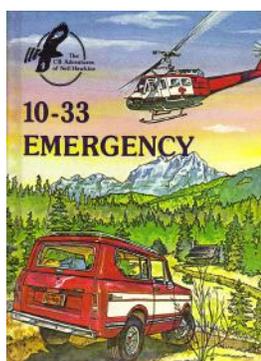
**Collecting Juvenile Communications Fiction**  
(Continued)

**Tommy Rockford** (continued from previous page)



The **CB Adventures of Neil Hawkins** was a series by Bob Cunningham. It was published by Crestwood House in the 1977 at the time of the CB craze. Neil uses CB radio to get help in fighting a forest fire, recovering a stolen vehicle and dealing with other emergencies. Series was issued with pictorial cloth covers.

- |                    |      |                          |      |                   |      |
|--------------------|------|--------------------------|------|-------------------|------|
| 10 - 5 Alaska Skip | 1977 | 10 -7 for Good Sam       | 1977 | 10 - 33 Emergency | 1977 |
| 10 - 70 Range Fire | 1977 | 10 - 200 Come On, Smokey | 1977 |                   |      |



The preceding series each were devoted exclusively to radio but several other very popular series of those times had one or more volumes that mentioned radio or wireless in their titles. We'll get into that in another article.

## Can You Hear Me in the Back?

By Bill Zukowski (Continued from last issue)

### The Best of Both Worlds

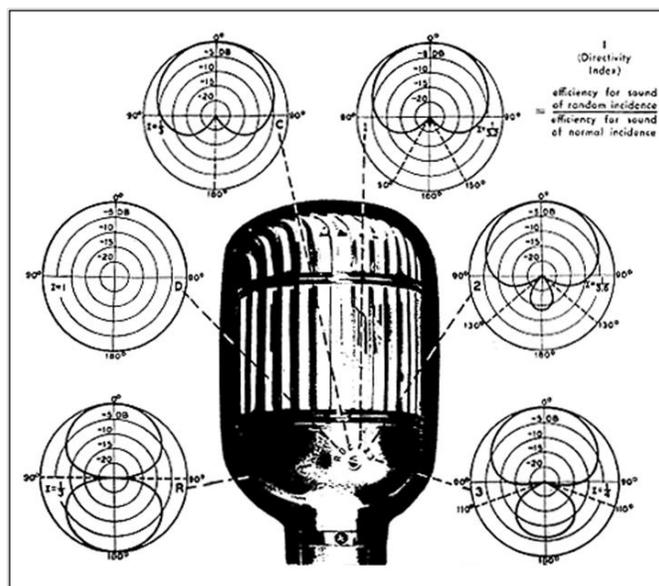


**Altec Lansing Model 639B  
Combination Ribbon and Dynamic**

Designed by the Bell Telephone Laboratories and originally manufactured by the Western Electric Company, 639A and 639B Multi-Pattern Cardioid micro-phones have, for years, enjoyed an unprecedented acceptance by all phases of the audio industry. (In 1949 Western Electric discontinued sales, service and maintenance of sound system products and entered into an agreement with Altec Lansing Corp. supplying them with inventory, engineering information for continued manufacturing and support of sound system products.)

The moving coil pressure element when used alone has non-directional characteristics. The ribbon element when used alone has a figure eight pattern. The combination of the two elements results in a phasing of the output voltage causing the micro-telephone to have a Cardioid directional pattern. The three additional positions on the 639B micro-telephone are variations of the Cardioid pattern, with increasing pickup selectable by a switch.

### Selectable Pickup Patterns For the Altec Lansing 639A and 639B Microphones



## Can You Hear Me in the Back?

(Continued)

### Microphone Pickup Patterns



Omni-directional



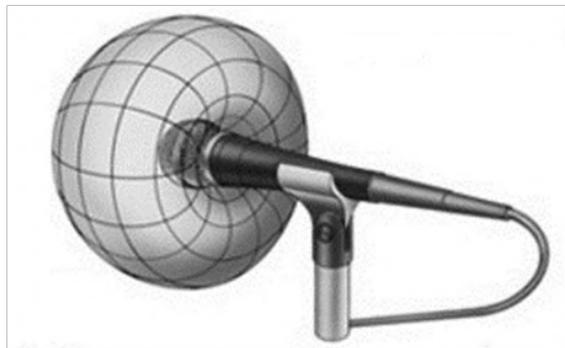
Electro Voice Model 655-C (Dynamic)



Shure Model 777 "Slim X" (Crystal)

**Can You Hear Me in the Back?**  
(Continued)

**Microphone Pickup Patterns**



**Cardioid**



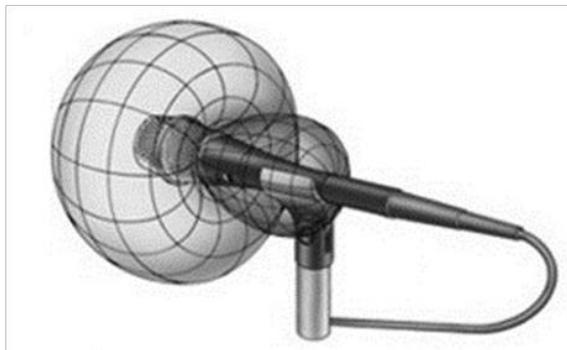
**Electro Voice Model 655-C (Dynamic)**



**Electro Voice Model 666 (Dynamic)**

**Can You Hear Me in the Back?**  
(Continued)

**Microphone Pickup Patterns**



**Supercardioid**



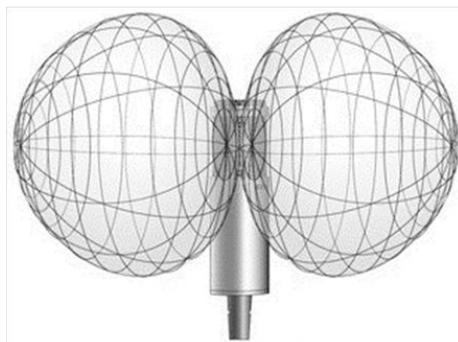
**Shure Model Beta58A (Dynamic)**



**Electro Voice Model 666 (Dynamic)**

**Can You Hear Me in the Back?**  
(Continued)

**Microphone Pickup Patterns**



**Bi-Directional**



**RCA Model 77DX (Ribbon)**



**Electro Voice Model 666 (Dynamic)**

## Can You Hear Me in the Back?

(Continued)

All images are from my personal collection or public domain. The information contained is from various internet sites, manufacturer's data sheets and catalogs.

Listed below are some microphone sites that you may find interesting.

Coutant collection:

<http://www.coutant.org/contents.html>

Los Sendros Studio "The History of the Microphone:

<http://lossenderosstudio.com/article.php?subject=14>

American and Japanese Microphones from the Past:

<https://odemar.home.xs4all.nl/microphones/usa-mics.htm>

Vintage Mike's Old-Timey Microphones and Antique radios:

<https://vintagemike.wordpress.com/>

Lloyd Microphone Classics:

<http://www.lloydmicrophoneclassics.com/index.html>

Pro Audio Encyclopedia – A Historical Look at Electro-Voice:

<http://proaudioencyclopedia.com/?p=539>

A Museum of Early and Historic Microphones, Tom Perera, W1TP:

<http://w1tp.com/impermic.htm>

Vintage Shure Catalogs (1933-1984):

[http://shure.custhelp.com/app/answers/detail/a\\_id/2500/~/~vintage-shure-catalogs-%281933-1984%29](http://shure.custhelp.com/app/answers/detail/a_id/2500/~/~vintage-shure-catalogs-%281933-1984%29)

Modesto Radio Museum – "The Microphone Man":

<http://www.modestoradiomuseum.org/avey%20index%20page.html>

Bill Zukowski [n2yeg@optonline.net](mailto:n2yeg@optonline.net)

## Field Day 2023



NJARC members participated in the 2023 ARRL Field Day, held on Saturday and Sunday, June 24-25. Despite threatening weather, a hardy group of amateurs turned out to sharpen their skills in emergency preparedness.

We'll have a review of the event in next month's "Broadcaster." Stay tuned...



# New Jersey Antique Radio Club's

## Summer Tailgate Swap Meet and Ham Fest



Infoage Science History  
Learning Center and Museum  
2201 Marconi Road  
Wall, New Jersey 07719



# Saturday July 22nd, 2023



### Refreshments Available

40 spaces available  
\$25.00 for members  
\$30.00 for non members  
Bring your own tables

### Open to the Public

8am to 12 noon  
Vendor setup at 7:15 AM  
\$5.00 ENTRANCE FEE  
CLUB DONATION

### For Directions

Visit our website: [www.njarc.org](http://www.njarc.org)  
or Mapquest  
2201 Marconi Road, Wall NJ 07719

## Vendors Make Your Reservations Now!

### Contacts:

President  
Richard Lee  
(914) 589-3751  
[radiatorich@prodigy.net](mailto:radiatorich@prodigy.net)

Vice President  
Sal Brisindi  
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[salb203@aol.com](mailto:salb203@aol.com)