



The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

February 2009

Volume 15 Issue 2



**MEETING/
ACTIVITY
NOTES**

Reported by Marv Beeferman

THE ON-LINE BROADCASTER

The New Jersey Broadcaster is now online. To date, 97 of your fellow NJARC members have subscribed, saving the club over \$1700 a year. Interested? Send your e-mail address to: mbeeferman@cs.com
Be sure to include your **full name**.

The January meeting featured an interesting talk by NJARC member Walt Heskies on silver migration in silver-mica, IF transformer capacitors. Walt discovered the phenomenon while working on a restoration with some annoying problems that would not respond to the standard fix.

Walt explained that in some IF transformers, there are integrated capacitors internal to the enclosure and parallel to the primary and secondary of the coils. Their range is around 70-250 pf. After years of service, the silver becomes tarnished where the spring metal contacts touch the silver. Also, high voltage potentials can cause migration or deposition of contaminants. Depending on the construction of the capacitor sections, these contaminants may cause shorting and minor arcing across the capacitor or from primary to secondary of the IF coil.

The symptoms? The radio may play well for a few minutes but then suffer from static, popping, and thunderous crashes like a nearby electrical storm. These are attenuated by the volume control provided the control is "downstream" of the IF sections. A good "thump" might cure the problem momentarily.

Since we had some problems displaying Walt's presentation at the Sarnoff Library, you'll find the "cure" for this problem, supplemented by a series of photos found on



MEETING NOTICE

The next meeting of the New Jersey Antique Radio Club will take place on Friday, February 13th, at 7:30 PM at the David Sarnoff Library. Visit us at <http://www.njarc.org> for directions. All Board members are requested to arrive no later than 6:30 prior to the regular meeting. We've scheduled a short talk on AM multiplexing by Herb Hobler and the first half of a nice test equipment auction. Read all about it in this month's *Broadcaster*. Of course, we'll also be happy to accept your 2009 dues.

the Web, on page 7 of this month's *Broadcaster*.

We're sure you'll enjoy Herb Hobler's talk scheduled for the February meeting. Herb has had an interesting career working with NBC television, CBC, Teleprompter and radio station WHWH in Princeton. He developed a multiplexing device years ago and tried to get it incorporated into AM radio. Instead, it was bought by Wall Street and used as a stock communication device. We'll learn all about it next Friday.

pictures of what's being offered in this month's *Broadcaster*. One requirement, though; you must be a dues paying member for 2009 in order to bid.

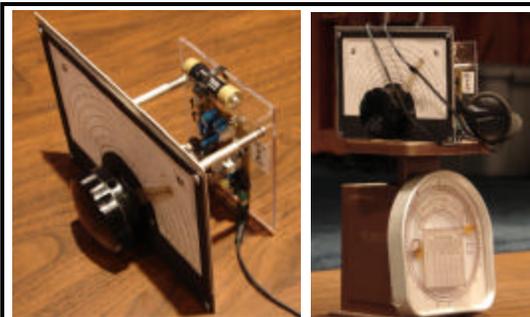
2009 DUES

With the new year comes a call for the dues that will keep our generous activities at the high standards expected from our membership. If you look back on 2008, you can't argue that the price is right.

To the right of your name on the *Broadcaster* mailing label is your membership status. (E-mail recipients will be notified individually.) An "H" designates an honorary member and an "L" designates a lifetime member, both with no dues required. (This year, past president Phil Vourtsis has been voted to honorary status by your Board.) Some members are paid through "2010", and this designation does not require a payment for this year. Those with a "2009" expiration date may renew for a \$20 payment or \$25 to continue/begin a family ("F") membership. A single lifetime membership is 10 times the annual yearly rate (presently \$200).

Please send your renewal to our membership secretary:

**Marsha Simkin
33 Lakeland Drive
Barnegat, NJ 08005**



Al Klase's modification of a SONY SRF-59 Walkman was challenged as an entry in the "Light-Weight" category of our BCB DX contest ... it made it at just under 1 pound.

If your "in" to old test equipment, you'll appreciate part 1 of the Lukas estate auction also scheduled for the February meeting. Mr. Lukas, after working for the military during WW II, was an early player in black & white and color TV development for the Emerson company. We've published the auction list and a few

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 \$20 per year and meetings are held the second Friday of each month.

The Editor or NJARC is not liable for any other use of the contents of this publication.

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THE LATEST FROM INFOAGE

By Ray Chase

Tutorials Scheduled

Through the auspices of Mr. Stephan Makrinos of the AFCEA (Armed Forces Communications Electronic Association), a series of tutorials have been scheduled for area high school students in the next 5 months. This is clearly in line with the "Learning Center" mission of InfoAge. The AFCEA group awards scholarships to local high schools so this fulfills their mission also. The NJARC is heavily involved in this as well. Tutorials will be presented at the InfoAge complex from 1:00 to 3:00 PM on selected Saturdays. A lecture/slide program format is planned as well as practical hands-on participation wherever possible. The topics, dates and presenters are as follows:

The History of Radio

Al Klase, February 14th

How Your Cell Phone Works

Harry Klancer, March 14th

The History & Development of Radar

Ray Chase, April 11th

How the Internet Works

Harry Klancer, May 9th

Introduction to Electronic Warfare

John Cervini (AOC), June 13th

Cabin Fever?

Winter got you stuck in the house with nothing to occupy your hands? The NJARC/NBHF still has plenty of radios that need restoration and/or repair. Have your skills gotten rusty? Get back into practice by taking on some worthwhile rejuvenation projects. Tasks can be physical restoration such as cabinet work or electrical repair to make the set work, or just a simple clean-up. You will be reimbursed for the cost of replacement parts; technical documentation (schematics, manuals, etc.) can also be provided. Enjoy the satisfaction of taking a "cruddy" set and making it shine or even play as well as it originally did. Especially welcome are

members willing to dive into vintage TV sets. Use those skills honed at our repair clinics. For further information, contact Ray Chase (enrpnr@erols.com, 908-757-9741) or see him at our next meeting.

Honey, that's the Biggest Diode I've Ever Seen!

Al Klase gives a sense of proportion to one of two "humongous" diodes that will soon be taking its place in our museum. The diodes were donated by member Joe Cro.



A Philco Diorama

Occasionally, there's been some very strange things dropped at the doorstep of our InfoAge museum. Although some members might consider it sacrilegious to transform a Philco cathedral radio cabinet into a diorama, you must admit that a lot of work went into the following unique acquisition. Some members might remember a similar metamorphosis shown at one of our "show-and-tells" where the result was a radio cabinet color organ.





A very intricate interior.

"ALIEN" RADIO FOLLOW-UP

By
Marv Beeferman

The February Broadcaster ran a story describing research into the "alien radio" question. Mr. Morgan Beatty, a researcher for the PBS series "History Detectives," had been looking into the story of Italian families in Detroit whose radios were tampered with by federal authorities. Following the posting of this question on the Antique Radio Form, there was quite a response regarding evidence of alterations and modifications to the short-wave sections of multi-band radios.

NJARC member Nick Senker brought the same issue to member's attention through the Reflector, our on-line discussion medium. In part, some of the positive evidence of alterations was based on Nick's own experience with a radio he recently restored where the short-wave bands had been disabled:

"The wire from the low band antenna coil (2-7 MHz) was neatly clipped and tucked out of the way. The antenna coil from the high band (7-22 MHz) had been removed with no traces. When I returned the radio to the owner, he confirmed that his parents, who were Italian immigrants, had the radio serviced during WW II when the SW bands were disabled."

Other NJARC postings seem to support the same theme:

"I had two RCA T62 (or was it 62T?) sets. One had the SW coil brutally destroyed,

apparently by a screwdriver. The other had an extra bare wire running from the coil to the chassis ground. This modification was done so neatly that it looked factory original. As the other side of the coil was supposed to be grounded, it took a long time for me to finally figure out the problem."

"My father, a WW2 vet and an Italian-American, told me that the shortwave 'cutting' was usually done with 'a nod and a wink' and was easily reversible. That may not be true for all radiomen in all parts of the country, but apparently it was the norm in small-town South Jersey."

"During WWII, all German, Italian and Japanese aliens or non-citizens that had radios capable of receiving short wave broadcasts, had to have the short wave bands disabled by a radio repair shop. I was only a teenager then but did work in a radio repair shop and the owner usually did the work. Of course, there are different ways of doing it but he preferred to put jumpers across the oscillator coils."

Another interesting comment comes from Bart Lee of the California Historical Radio Society. Member John Dilks kindly forwarded a copy of the Broadcaster to Bart (a "Jersey Boy" who graduated from Bergenfield High School and who lived down the street from Bob Gaudio). Besides complimenting the club on a "great job" on our newsletter, Bob noted the following:

"My late uncle, Holly Timm, lived in Dumont, NJ. In 1941, he was a German National; having jumped ship in New York Harbor about 1937, disgusted and appalled at the Nazis. In early 1942, according to his wife Anne Timm (my mother's older sister), the FBI came to make a very polite visit. All they wanted to do was say hello and cut the wires to only the shortwave band tuning coils in the Timm's nice, big multi-band console radio (which they did, leaving it otherwise operational). The Timm's understood that it was done to prevent listening to NAZI propaganda. I have heard of current antique radio guys discovering this "fault" and wondering about it. This must have happened to a lot of radios. Maybe it's the first thing to look for in some on the bench today."

Not a bad idea Bart...in fact, it would probably benefit this small niche in radio

history if restorers obtained some photo documentation of intentional short-wave modifications. Along with the photo, the model number and perhaps the history of the radio could be recorded. (In some cases, servicemen placed stickers on tubes indicating the date of service and the name and location of the shop.) In any case, let's hope this information prompts future restorers to look with a keener eye for examples of this interesting subject in the history of radio.

JANUARY AUCTION RESULTS... A SAMPLING

Appreciation goes out to Ray and Edith Chase for organizing another successful club auction. There's a lot of work that goes into moving a large amount of material to Princeton and getting it ready to go on the block. Al Klase and crew ensured an orderly bidding process and rapid turnover; the fruits of all these labors added \$411 to the club's coffers.



The following is a sampling of a few of the items that went to good homes:



GR capacitance bridge - \$35



GR absorption frequency meter - \$10



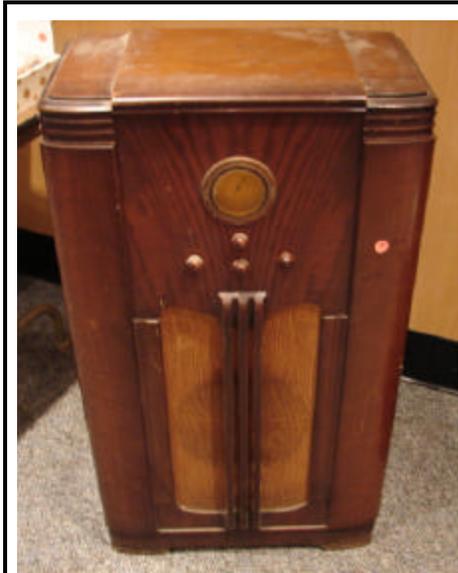
Pilot 3" TV -\$150



Decade capacitor -\$5



RF choke radio store display -\$20



Weston receiver analyzer test set



A \$64,000 QUESTION

Looking for the perfect platform for bringing out the best from your old vinyl? How about a Gabriel Turntable personalized with your engraved name? But with a price of up to \$64,000, you won't find it at Wal-Mart or on the Web.

The Gabriel is made from aluminum, bronze and stainless steel and can be customized with up to four arms. Each arm is made in Modena, Italy, at the same factory that builds Ferrari parts. Why four arms? Different pickup cartridges produce different types of sound, and some audiophiles like to match their record players' arms to different genres of music without going through the hassle of swapping cartridges.

The Gabriel is also a magnetic suspension turntable, meaning that calibrated

magnets are used to lift the platter a few millimeters above its bearings. This helps reduce vibration, which can affect sound quality. It's as if the whole turntable is floating on air.

The entire device rests on a custom-built, vibration-dampening table. It takes half a day for a technician to set the turntable up and calibrate it.

A little too low-end for your taste? The Gabriel is not the only four-armed record player on the market, nor is it the

most expensive. The German-made, 770-pound Clearaudio "Statement" turntable costs twice as much.

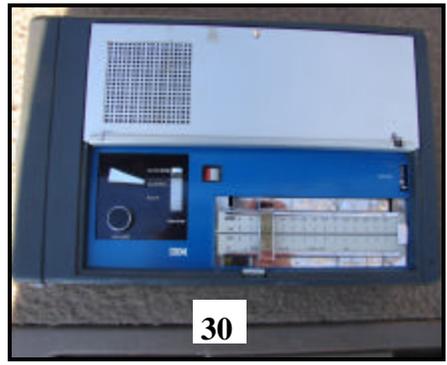
With vinyl making a comeback, the Gabriel is made to appeal to audiophiles who believe that listening to old records on a high-end player is like going back in time. At between \$27,000 (for a one-armed model) and \$64,000, it makes one wonder. A person would have to be very wealthy, very much into vinyl or very crazy to buy one.



The Lukas Estate Auction—Part 1

<u>ITEM</u>	<u>MANUFACTURER</u>	<u>MODEL</u>	<u>DESCRIPTION</u>
1	Empire Devices	NF-105	Noise and field intensity meter
2	Boonton Radio Corp.	202B	FM signal generator
3	Tracor	ARJ-4	"Beksey" audiometer
4	Boonton Radio Corp.	260A	Q-meter (50KC – 50 MHz)
5	Raytheon	CA-400A	Loran navigation receiver
6	Tracor	599R	Receiver (power supply, comparator, programmer, receiver)
7	Ferris	18-F	"Microvolter" (RF voltmeter)
8	Boonton Radio Corp.	203-B	Univerter
9	HP	200CD	Wide range oscillator
10	Cahn (Ventron)		Electrobalance
11	Cahn (Ventron)		Electrobalance
12	HP	410C	Voltmeter
13	RCA	WR-59A	Television sweep generator
14	HP	400C	RMS voltmeter
15	Tektronix	Type 121	Wide band preamplifier
16	Cutawl	K-11	Antique saber saw (w/blades)
17	FMV		Motor-driven variable capacitor
18	Brown	612	Temp./humidity recorder (poor)
19	Lafayette	TE-25	Capacitor analyzer
20	Sun	CB	Volts-ampere tester (car collectors take notice)
21	Sun	Y	Battery-starter tester (car collectors take notice)
22	Harrison Labs	890A	Power supply (0-300V, 0-0.8 amps, adj.)
23	Tracor	599R	Receiver (power supply, comparator, programmer, receiver)
24	L&N	5430A	Resistance test set
25	Boonton Radio Corp.		Set of 6 standard inductors (boxed)
26	HeliFlux	GA -22	Magnetic locator
27	HP	5245L	Electronic counter (nixie tubes)
28	Kay Electric	154C	Sweep oscillator (50KHz – 110 MHz)
29	Measurements Corp.	58	UHF radio noise and field strength meter
30	IBM		Portable recorder (unique)
31	Simpson		AC-DC wattmeter/voltmeter
32	Taglia		Chart recorder
33	Westinghouse		Thermocouple voltmeter (0-2 VAC)
34	Electro Products		Speed/Dwell indicator
35	Homebrew?		Transistor regulated PS (0-10V, 0-100 mA)
36	Keithley	210	Electrometer
37	Yellow Springs		Tele-Thermometer (60-200 deg. F)
38	Sanwa Electric Co.		VOM
39	Heathkit	V-7A	VTVM
40	TACO		200 watt all-wave line filter
41	International		6 transistor pocket radio (in case)
42	UVP	J-225	Black-Ray, short wave ultraviolet meter
43	Western Electric	931	Photo-electric meter (w/cell); works
44	Sencore	TRC	Transistor and rectifier checker
46	Syntest	SI-200	Frequency synthesizer (1 Hz – 200 MHz)

(See page 6 for photos of some of these items.)

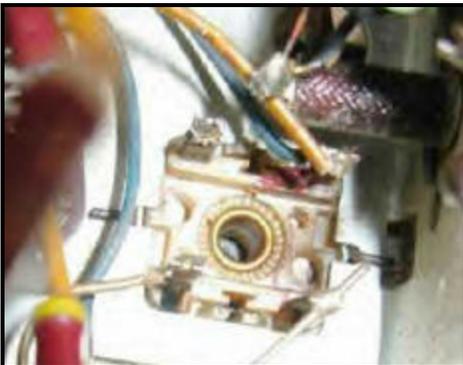


CURING THE SILVER-MICA CAPACITOR DISEASE

Edited by
Marv Beeferman

The following information and photos were found at radiomuseum.org/forum...
Ed

1. Photograph or make a sketch of the IF connections. Mark a reference point on the base of the IF can so it can be re-installed in the proper orientation (often one contact has a spot of red paint). Desolder the connections.



2. Remove the metal cover. Drill the rivet loose that holds the retainer over the silver-covered mica wafer.

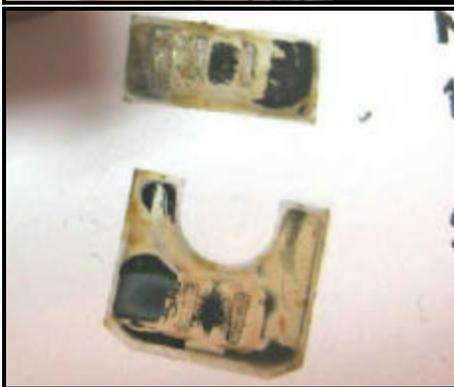


3. With the capacitor exposed, find its value on the radio's schematic or measure it with a capacitor tester. You may have to make 2 very small probes with banana jacks and a 1-inch bare wire (pinch the wafer between the bent wires). You can also unsolder one of the transformer wires per coil and touch the lugs to the meter.

Also, mark which coil (upper or lower) is connected to which contacts. This will save some work if the coils must be removed from their base. It also aids in determining where to connect the replacement capacitors.



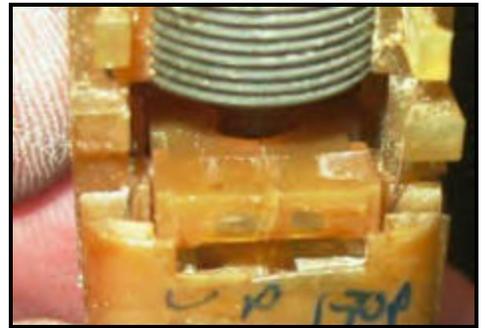
4. Remove the original capacitors. Inspection should show tarnish or deposits that short across the upper and lower plates. Sometimes, you may see traces from the primary to the secondary sides of the IF transformer (typical of a single wafer of mica with multiple capacitors). To make room to access the capacitors, you may have to: a) move the lower tuning slug up, and b) remove the transformer coil wires and separate the coil section from the base.



5. Clip the original capacitor contacts so they will not short.



6. Replace the cover to prevent the contacts from moving into the case.



7. Glue the capacitor cover that was drilled off back into the base. This will prevent the transformer contacts from retracting into the case and touching the slug.



8. If you moved the tuning slug to make room to clip the capacitor contacts, return it as close to its original position as possible; this will facilitate alignment. Replace the metal cover. Solder equivalent capacitors external to the underside of the IF transformer.



9. Reinstall and reconnect the transformer. Perform a complete alignment; the new capacitors will shift the IF alignment.





New Jersey Antique Radio Club's — **SPRING SWAP MEET** —



Parsippany PAL Building
Smith Field
Route 46 & 33 Baldwin Road
Parsippany, New Jersey 07054



Saturday, March 21, 2009

**Walk around auction
starts at 11:30 am.
Bring in your attic
treasures for free
appraisal!**



**Expert Antique Radio
Repair Available.
Refreshments Available.
Easy ground level access.**

Open to the Public
(8:00 am to 1:00 pm)

Vendor Set-Up at 7:00 am
**\$5.00 ENTRANCE FEE
CLUB DONATION**

**(70) 8 ft. Tables
\$20.00 for members
\$25.00 for non-members
Reserved Additional Tables \$15.00
At the Door \$20.00**

**FOR DIRECTIONS
VISIT OUR WEBSITE: WWW.NJARC.ORG
OR MAPQUEST.**

(33 Baldwin Rd., Parsippany, NJ 07054)

Vendors Make Your Reservations Now!

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