

The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

May 2019

Volume 25 Issue 05



MEETING/ ACTIVITY NOTES

Reported by
Marv Beeferman

The ON-LINE Broadcaster

The *Jersey Broadcaster* is now on-line. Over 160 of your fellow NJARC members have already subscribed, saving the club a significant amount of money and your editor extra work. Interested? Send your e-mail address to mbeeferman@verizon.net. Be sure to include your full name.

The cutoff date for 2019 dues has come and gone, so if a fellow member questions why this month's *Broadcaster* was not received, you might want to suggest that non-payment may be the reason. If it was just an oversight, then that member should contact our membership secretary Marsha Simkin as soon as possible.

Excitement is building over this month's Kutztown Radio Meet, especially since it has been announced that part of Joe Cro's estate will be auctioned on Friday evening. (See the "Remembering Joe Cro" article on page 2.) Note that our monthly meeting has been moved to the 17th to accommodate people attending the meet! It's still up in the air whether I'll be at Kutztown since I start my "Manhattan" vacation on the 11th; unfortunately, besides the meeting, I'll also be missing our Spring Repair Clinic. But president Richard Lee guarantees that there will be morning bagels (in one form or another) to satisfy your Jewish doughnut fix.

Considering how quickly it came together, the International Marconi Day celebration (see page 7) at the InfoAge RTM was quite a success. As a result, Technical Coordinator Al Klase "sensed a pent up demand for one-the-air operation among NJARC hams." If you've been following the Communicator lately, perhaps like non-hams such as myself, you've been hearing phrases and terms that sound like stuff out of Buck Rogers. Well, all the better I say. And if it gets



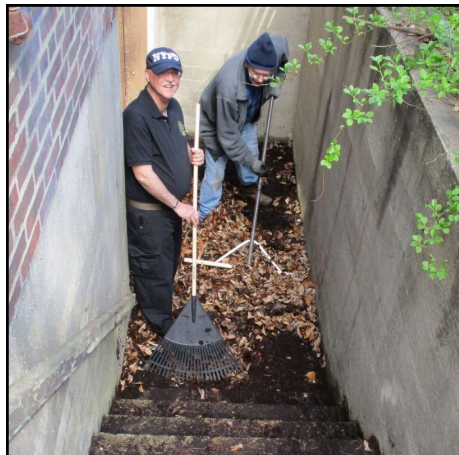
MEETING NOTICE

NOTE DATE CHANGE TO AVOID KUTZTOWN CONFLICT

The next NJARC meeting will take place on Friday, May 17th, at 7:30 PM at InfoAge. Directions may be found at the club's website (<http://www.njarc.org>). It hasn't been finalized yet, but this month's topic, presented by Technical Coordinator Al Klase, will either deal with Edwin Armstrong or practical ham radio for the antique radio person. We'll also have a small auction. Any late additions will be posted on the club's website.

our members closer together in sharing one more common interest and has the potential to bring others into the fold, there must be some value in it. Perhaps we can tease Al into coming up with a *Broadcaster* article sometime in the future to explain it all to those of us sitting on the sidelines (or is that sidebands?).

Ray Chase and the NJARC would like to thank all thus who participated in outside cleanup day for the RTM on April 27th. The crew spent about two hours raking, clipping and picking up trash so that the lawn mowing season can begin in earnest. Included with Ray were Bruce Ingraham, Jim Doran and Paul Hart. Ray noted that Jim and Paul went beyond what was needed and tackled a really grungy stairwell to the old boiler building..."gluttons for punishment."



John Ruccolo noted that it was a busy May 3rd/4th weekend at the RTM as InfoAge hosted the Vintage Computer Festival East. Below is a photo of Harry

Klancer giving Ken Thompson a tour of our museum. Thompson is the father of the Unix operating system, developed at Bell Labs in 1969. "Harry was pretty happy to meet him."



The club has unexpectedly learned that YouTube now requires a minimum of 1,000 subscribers to the NJARC YouTube channel to live stream our meetings. Therefore, we are requesting that you subscribe to this channel to enable our members from all over the country, and potential new members from all over the world, to enjoy our informative and entertaining club meetings. For more information, go to Bob Bennett's "RadioWild" on YouTube and watch the video "I need your help..."

Upcoming Events

- May 10-11 - Kutztown Spring swapmeet
- May 18 - Spring Repair Clinic at InfoAge
- June 14 - Monthly meeting at Princeton; presentation by Alan Wolke (topic TBA)
- July 12 - Monthly meeting at Princeton; topic TBA
- July 20 - Summer Tailgate Swapmeet/ Hamfest at InfoAge

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 the second Friday of each month at InfoAge or Princeton University. The Editor or NJARC is not liable for any other use of the contents of this publication other than information.

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REMEMBERING JOE CRO (N3IBX)



Longtime NJARC member Joseph M. Cro of Washington Crossing, PA passed away suddenly on Thursday, April 18, 2019. Joe was born in Philadelphia and lived in Yardley before moving to Washington Crossing 21 years ago. Prior to his retirement, he was employed as a resource controller for SEP-TA for 27 years.

Joe was a Mason, belonging to the Athelton/Lamberton Lodge F. & A.M. His interests included old cars and he loved his six cats. But as most of his friends were aware, Joe was a ham radio enthusiast and a dedicated collector, builder and operator of vintage and ham radios. He was a member of the Antique Wireless Association and the American Radio Relay League.

Joe is survived by his wife Jocelyn B. (Fritsch) Cro, his mother Antoinette (Cairone) Cro and several nieces, nephews, cousins and in-laws. In lieu of flowers, the family requests memorial contributions be made to St. Mary Medical Center (www.stmaryhealthcare.org).

An article in the April 2004 QST by John Dilks ("Hallicrafters HT-4, to War and Home Again") included a profile of Joe (and the above iconic photo) that still resonates today:

Known best as "Vortex Joe," N3IBX says "Anything within a 500-mile radius of my house that has a vacuum tube in it gets sucked into my basement shack - never to see the light of day again." Joe lives near Philadelphia and enjoys collecting, working on, modifying, restoring and using vintage Amateur Radio equip-

ment and old broadcast transmitters. He loves to bring something back to life that has remained forgotten or neglected, and use it on the air again. He says he runs a "Boatanchor Hospice"...Joe's motto is: The bigger it is, and the more it weighs, the better it will work!

Ken Barber (W2DTC) made numerous visits to see Joe and swap stories. Luckily, he gathered a group of photos and comments on a webpage that covered 2002 to 2017.

On April 21, 2012, Ken was introduced to Joe's "Radio Super Barn" which "has almost doubled the size of his collection with all new stuff...The Radio Super Barn is a very comfortable, sturdy, custom made building with 100 amp electrical service, air conditioning and built-in shelves and work tables. If there ever was a remote, quiet, man cave, this is it!"



June 29, 2009: "Joe couldn't wait to show me his recent acquisition of the rare 1936 Collins 32G transmitter. It has four 6L6's in the final and was used in both amateur radio service and commercial service. Joe's 32G was part of a remote broadcast system for radio station WDAE in Tampa, Florida and was configured for 2.7 MHz...I asked Joe which of his collection is the most rare. Joe showed me two receivers. The first was a 1938 Breting 14AX and the second was an RCA AR-1145 Shortwave Receiver. One of Joe's favorites is a Collins 75-A4A receiver, which is a 75-A4 with special product detector modifications."



August 2, 2008: "Paddy and I decided to pay Joe a visit and give him some goodies. Joe always likes to receive radio goodies...Moving into the "sunroom" part of the house is the vintage 'parlor' radios."



July 2004: "The famous 'COCA COLA KILOWATT'; several homebrew KW amps built into a Coca Cola machine."



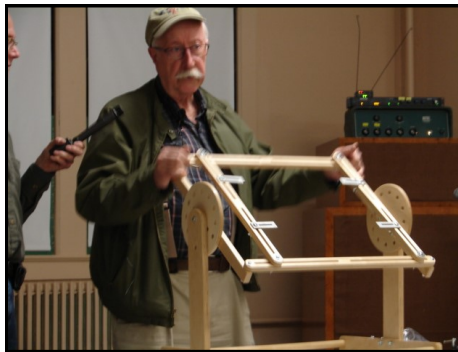
Joe Cro's LinkedIn profile names Joe as "Chief Electrical Engineer at Vortex Joe Electronics," a moniker that I think no one will disagree with. As stated by NJARC member Joe Devonshire, "I'm sure he's working that big AM Transmitter up there along with the other great ones."

RADIO SHOW & TELL AT APRIL MEETING

By
Marv Beeferman



John Rucolo took a lead from last month's *Broadcaster* article on the Tradio company of Asbury Park. His "Tradio-ette," designed for use in restaurant and tavern booths, still plays well but unfortunately the coin mechanism has been replaced by a switch.



Tom Provost demonstrated his chassis stand produced by Steve Strong. Dimensions of the large stand are approximately 20 X 25 X 16 and it sells for \$55 with about \$20-\$25 for shipping. Tom says the stand will hold some 50 pounds but other users say it will hold even more. The only drawback might be its size and the "domination of one's workbench" but Tom plans to provide a roll-around cart for his. More information may be found at radiostands.com.



Bruce Ingraham tested member's acuity with this Sears 1941 AA5 AC/DC radio. What's unique about it? We'll let you figure it out. (Hint: the close-up photo won't be of much help.)



D.G. Haines, working under Jerome C. Smith, invented the first pentagrid converter tube at RCA in 1933. Ray Chase displayed this patent model of Smith's own 1933 version that was salvaged from the RCA dumpster by past NJARC president Jim Whartenby and donated to the museum several years ago. It has a five pin base, grid cap and two added wires coming out of the top of the base. The first pentagrid converters were the 2A7 and 6A7 that created the potential for five-tube superhet radios.



Ray also talked about another example of one of his "weird" types of vacuum tubes. The Carcinotron ("cancer for radar") is a backward-wave, voltage-controlled microwave oscillator that is capable of operating over a wide frequency range and up to terahertz values. This Litton L-3223B1 is an M type used in radar jammers. It is oil cooled and hydraulically actuated for large frequency shifts. As a "crossed field" device, it functions by the interaction of an electron stream in a strong magnetic field. From the 1960s on, these tubes were the major device used in Electronic Warfare jamming.

What's the perfect blanket to take to the beach and listen to your RCA portable? - an RCA-themed beach towel of course. Darren Hoffman picked up this unique piece at an estate sale along with a copy of JEI (Japan Electronics Industry) magazine. Darren said that once you get past the grammar that reads like an early Japanese operation manual, you'll find lots of interesting articles about Japanese imports and advertisements for test equipment rebranded "Lafayette," "Allied," etc.



Robert Forte described his RM-29-A Remote Control Unit. It provides remote control voice operation of various radio sets of the period like the SCR-178, SCR-284, etc. It operates in conjunction with an EE-8 Telephone over a two-wire telephone line. A microphone and headset plugged into the unit are used for transmission and reception of signals via the radio set, for monitoring signals between the telephone and radio set and for direct telephonic communication with the Telephone. These operations are controlled by the unit's "RADIO-THROUGH-TELEPHONE" selector switch. A 4½ volt battery operates the microphone.



Such a deal! Dave Snellman paid only \$50 at auction when this Zenith R-7000 was misrepresented as an R-7001. They normally go for between \$500 to \$1000 on eBay. This gear-driven beauty (the R-7001 has a tuning belt) was Zenith's last entry into the transistor-based "Transoceanic" market (1979-1981) and came with a dust cover and swivel base (an official Zenith option). The radio has a built-in BFO for SSB reception, a squelch for PSB and AIR bands, variable RF gain, two IF bandwidths for all AM/SW modes, concentric coarse and fine tuning knobs and dial illumination (controlled by a momentary switch on DC power).

Paul Hart found this single-tube homebrew at a recent estate sale and hopes to use it in our next BCB DX Contest. It included the original part boxes.



Dave Sica is a real "gadget guy" who couldn't resist the Rolton E500 with its five functions: a Bluetooth speaker, FM radio, recorder, music player and flashlight. "Premium sound with bass enhance technology." For the price, you can't go wrong.

REVISITING THE DIM-BULB TESTER AND VARIAC

By
Marv Beeferman

Recently, one of our members posted an ad for a homebrew "dim-bulb" tester (DBT). I don't know if some of the responses were just good natured "kibitzing" in league with April 1st, but I did get the impression that the term might be new to some members. Of course, you can easily look up the term on the internet and get all the information you need that explains and provides construction details for the device, but I thought it might be convenient if all these pertinent details, and perhaps some concepts you haven't thought about, were gathered in one place.



The culprit that started it all.

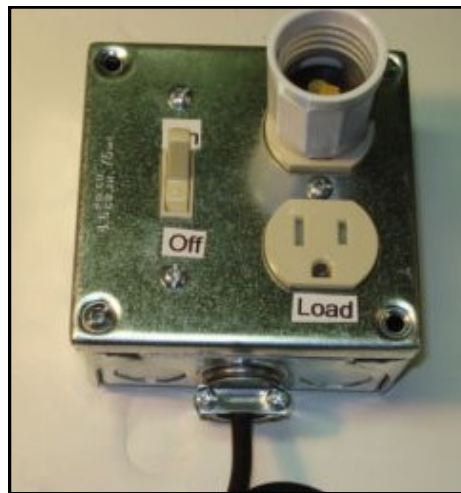
The DBT is a low-cost device used to limit current by taking advantage of the very non-linear relationship between the current and resistance of an incandescent bulb. When current is low, the filament's resistance is very low; with increasing current, resistance increases to the hundreds or even higher depending on the bulb type, nominal voltage and wattage rating.

Basically, a DBT protects your untested radio, and especially its transformer (if it has one), in case the rectifier, electrolytic power supply capacitors or some other major item like the power cord has a short. If you just plug the radio into an outlet and a filter capacitor is shorted, you can burn out your transformer since early radios weren't fused. With a DBT in series with the radio, the bulb will light

brighter passing most of the current through the bulb, not the radio, and hopefully saving the transformer.

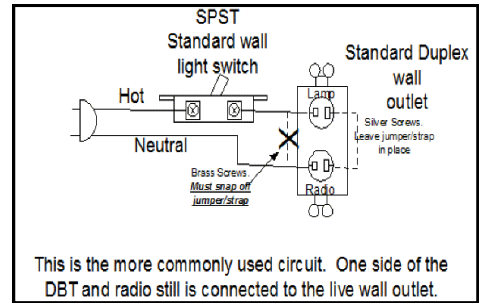
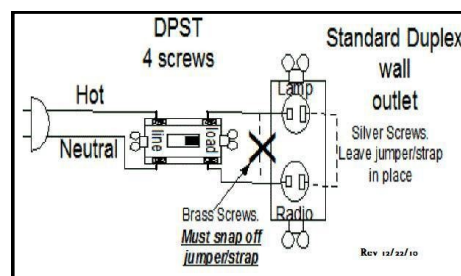
Some collectors use the DBT only for testing a radio's or amplifier's transformer. They pull out all tubes so false results aren't obtained from the tube currents. Their philosophy is that you're going to replace the filter capacitors anyway so there is no point in trying to operate the set until they are. (It's also a good idea to check the speaker field coil and all audio transformers before starting your restoration and test.)

The DBT circuit is very basic, usually consisting of a dual outlet receptacle with one socket used for the bulb load in series with the radio and the other socket serving up power to the test load. A switch is added to quickly kill power.



A typical DBT. This one sells on ebay for about \$42 shipped from Canada.

I came across two useful circuits offered by Paul E. Pinyot on the Radiomuseum website under the heading "Current limiting with a Dim Bulb Tester." One uses a DPST switch to completely disconnect the line from the DBT and the radio load. A more commonly used circuit uses a SPST switch where one side of the DBT and radio still remain connected to the live wall outlet. The duplex outlet is changed from a parallel to series connection by snapping off the strap on the HOT side of the outlet.



For safety reasons, make sure that you pay close attention to how this circuit is wired. This is particularly important to test old electronic devices that use hot chassis such as the AA5 and vintage TV's. Do not remove the neutral strap on the silver colored screws of the outlet. There should be no connections to the neutral side of the duplex outlet. If it has no paralleling strap, a wire jumper will be needed to connect the two neutral screws together.

To use the DBT, proceed as follows: (The process seems a little simplistic, but if you do it the same way each time, you may wind up saving a few radios.)

1. Plug in a lamp that is about 1.5 times greater than the radio's wattage rating into the "Lamp" outlet.
2. Plug in the radio line cord to the "Load" outlet.
3. Insure the switch is off. Insure the radio's power is off.
4. Plug the DBT into a live outlet.
5. Switch on the DBT.

If the radio is safe, the lamp should flash on bright, then (within about two seconds) dim out almost completely. After the radios tube filaments have time to heat up (about 30-90 seconds) and the tubes start to conduct, the DBT lamp will glow dimly. You may or may not hear anything from the radio depending on the number of tubes the radio has since the bulb may be drawing the current required by the radio to function. If the bulb's wattage is too low, the bulb will light brightly even if the radio has no problems and the radio won't play.

If the radio has a short or other problem, the lamp will immediately come on bright and will not dim out. Immediately remove power and troubleshoot the problem.

A Note about Bulb Wattage

Phil Nelson talks about bulb selection on his website: antiqueradio.org/dimbulb.htm

If your radio is a typical five-tube AA5

drawing 30-35 watts, then a 40 watt bulb should be about right. In other words, for best results, the bulb wattage should approximate that normally drawn by the radio. However, it is best to start with a value somewhat higher than the radio's rated wattage. If the radio is functioning properly, the higher rated bulb will glow dimly or barely glow. At this point, you might want to reduce the bulb's wattage to a value closer to that of the radio and carefully monitor the results. A six-tube set with a transformer runs between 40-75 watts and a B&W TV from 75-150 watts. A color TV will draw a hefty 200-350 watts.

Using A Variac

Most people use a variac with their DBT to slowly energize an untested radio, amplifier, etc. which has not been used for an extended period of time. In this way, the item's "health" can be monitored more closely as power is applied. (Remember - a variac is not an isolation transformer!) You might want to consider this method for equipment with a reasonable chance that the electrolytics might still be good. In general, the AC current draw should be about 50 to 75% of the current rating (or fuse rating) of the radio.

Bring the variac up slowly over a period of several minutes until you reach 50 volts. Some variacs have a built-in current meter or you can use a "clamp-on" ammeter instead of or in addition to your DBT. This will preheat the tube filaments and begin to re-form the electrolytics. Keep an eye on current and be on the lookout for smoke or any malfunctions. The variac should be left running at this voltage level for about 30 minutes.

Next, slowly bring the variac up to around 75 volts. This will allow the power transformer windings in a transformer-equipped set to warm up a bit, driving out any accumulated moisture, and will continue to re-condition the electrolytics. Leave the variac at this voltage for at least another 30 minutes.

After waiting 30 minutes, raise the voltage to around 90 volts. At this point, the radio or amplifier should be functioning. If the unit begins to hum, you will need to replace the electrolytics. Even if the equipment works well, its old filter caps will fail sooner or later, so you may save yourself some time and trouble later on if you replace them anyway.

After about 15 minutes, you can raise the variac output to full voltage and verify that everything is working correctly. Immediately turn everything off on a sudden increase of current or the smell of smoke.

THE RADIO BOYS

By
Marv Beeferman

Brooklyn-based photographers Sophie Butcher and Martin Diegelman like to take photos of devoted subcultures like the oldest tool and die shop in Manhattan. They can be found at the following site:

<https://www.famefamefame.com/>

Their latest photo series, "Radio Boys," documents collectors from the New Jersey Antique Radio Club, the Delaware Valley Historic Radio Club and the Kutztown Antique Radio Show and is printed as a digital mini newspaper. The club has a few copies that you can browse through.



In their introduction to the mini newspaper, the couple noted: "As technology evolved, radios fell out of favor and moved to basements and collected dust. Today, as audio is presented to us in an array of formats, a group of aging collectors remain determined to preserve its analog past. (The club) operates in a region with a rich past in radio technology. Bob Bennett, a member of the club for ten years, describes NJARC members as preservationists. 'I don't know what's going to happen when we go', he said, 'but we hope the club goes on. Radios are a piece of America, a piece of history.'"

When the couple was asked about how they decided to do a project all about radios and how did they learn about the NJARC, they said that club member Tom Cawley was telling them about the club's Parsippany swap meet. "It kind of just grew organically out of genuine interest...it really was people just doing things

for the right reason. Not for money, not to get famous - just out of love and preservation. Nostalgia is a powerful thing." They said that Tom helped wrangle up some buddies at Kutztown and that got things going for picture taking at the Kutztown show.

When asked what an NJARC swap-meet was like, Mr. Diegelman said:

"Well, Sophie (Butcher) sticks out like a sore thumb there. It's mostly engineer-type older men checking out the tables, looking for their particular type of vintage radio. They always were welcoming to her and she never had to pay admission. They even had her pull the tickets for the raffle at the end of the Parsippany show a couple of times."

Miss Butcher noted:

"Tom said it best I think when he was talking about how much of a family it is. One guy will walk up to a table and see a radio and be like 'I used to have that radio!' and the guy at the table will be like 'Yeah, you sold it to me 5 years ago!' There's a lot of members but they all seem to know a little something about each other, while there are a lot of great radios out there, there are only so many of these older and more rare radios around."

When asked if he had a favorite photo from the series, Mr. Diegelman said that he really liked the Kutztown shot of all the guys huddling around the giant vacuum tube.



"They were just fascinated and totally into it. They were taking their own photos and all speculating about what it could be from."

Miss Butcher got a kick out of the ceremonial burning of radio cabinets at Kutztown. She said that it really was nice to see how much of a community they all were and this was just a good way to bring everyone together at the end of a weekend that is all about radios. "They made it really clear that they wouldn't be

burning these cabinets had the radios they were housed in had not been beyond repair. They don't take their role in the preservation of radio lightly."



The couple noticed that "there definitely aren't many radio girls!...To be honest, most of the women I saw at the radio swap meets looked like they were waiting patiently for their partners to get their radio fix and then leave."



NJARC member Bruce Mager co-owned the store Waves with his wife who passed away recently. The store is the only remaining vintage and antique radio shop in Manhattan. Both of them loved collecting and going to swap meets. Bruce said "When I first got into this, people wanted radios from the 1920's. Now, younger kids want vinyl. It all depends on what era you grew up in."

Radio Boys was dedicated to NJARC member, pioneer in FM radio and transistor radio aficionado Charles Blanding who recently passed away.



"I love volunteering at the Radio & Technology Museum. It's usually, how should I put it...an older crowd that comes to visit the radio exhibit."

THE "RADIO BOYS" CELEBRATE MARCONI DAY

By
Al Klase

From the beginning, we've avoided putting a ham station in the RTM. There were potential problems with providing proper antennas and interfering with the many operating broadcast receivers in the museum. Besides, the Ocean-Monmouth Amateur Radio Club (OMARC) was a supporting organization of InfoAge, and had a pretty nice station.

Time had passed, OMARC was gone and the subject came up again. Back in March 2018, Bill Zukowski had set up an NJARC "Club" license, with the call sign KD2PFW. I poked around, and discovered that the call sign W2RTM was not in use. To an old-timer, that looks like a real ham call sign. It even has the dashes at the end that the CW guys prefer. (Dots get lost.) Bill worked his magic, and the FCC granted us W2RTM as a vanity call sign. But, still no station.

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
AMATEUR RADIO LICENSE
W2RTM

ATTN: WILLIAM S ZUKOWSKI
NEW JERSEY ANTIQUE RADIO CLUB
2201 MARCONI RD
WALL, NJ 07719

FCC Registration Number (FRN): 002729982

Special Conditions / Endorsements
NONE

Grant Date	Effective Date	Print Date	Expiration Date
03-23-2018	03-26-2018	03-27-2018	03-23-2028

File Number	Operator Privileges	Station Privileges
0008147064		CLUB

THIS LICENSE IS NOT TRANSFERABLE

(Licensee's Signature) FCC 660 - May 2007

Last month, all of a sudden, everybody was talking about W2RTM participating in International Marconi Day, an on-the-air celebration of Marconi's birthday, where hams communicate with "special-event stations" associated with Marconi sites around the world. (This is what I get for missing the April NJARC meeting.)

The event was scheduled for Saturday, April 27, the Saturday closest to Marconi's birthday, April 25. I put out a call on the Club Communicator, and

rounded up volunteers to build a station on Tuesday, April 23.

Some, led by Nevell Greenough and Louis (Gus) Shirley, rebuilt and heightened the existing 100-foot doublet antenna that fed the distribution amplifier that supplies signal to the display receivers. With a balanced antenna tuner, this would make a pretty good all-band ham antenna.

Gus used his air cannon to get additional halyards into the trees on the Hotel side of the RTM. We put up a Skywaves WAS-50 wide-band (LF-MF-HF) antenna system to serve the distribution system. The WAS-50 is a reverse engineered version of the General Electric V-Doublet Antenna from about 1936. (See Riders Volume 6)

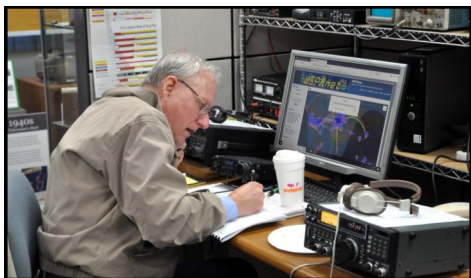
Meanwhile, the others moved display equipment out of the Short-Wave display, and moved a new table in. We set up a station, using my Yaesu FT-950 and LDG auto tuner. It's a modern "ricebox" that we controlled from a personal computer. That makes it easy to operate, without a steep learning curve, and makes a more impressive display.

I touched things up during the normal RTM work day on Wednesday, and we came back Friday for the event. We were on the air for most of the event period, 8 PM Friday to 8 PM Saturday. We made more than 100 contacts, mostly on 20-meters. Some of the more impressive catches included, Lithuania, Poland, and Russia. A good time was had by all, and now the RTM has a ham station.

Special thanks to the crew that made this possible:

- John Ruccolo – KC2UAK
- Bill Zukowski - N2YEG
- Mike Shaw – K2LRE
- Bob Johansen WB2SRF
- Robert Forte – K2RGM
- Nevell Greenough – N2GX
- Louis Shirley – WX2M
- Doug Poray – KC2TZC
- Jim Doran





PROJECT DIANA... MORE THAN JUST A MOON BOUNCE

By
Marv Beeferman

On January 10th, 1946, a team of military and civilian personnel at Camp Evans (now InfoAge) reflected the first radar signals off the Moon using a specially modified SCR-270/1 radar. The signals took 2.5 seconds to travel to the Moon and back to Earth. This achievement, Project Diana, marked the beginning of radar astronomy and space communications.

On May 18th, between 10:00 AM and 12:00 PM at InfoAge, the IEEE History Center Milestone will honor the dawn of Radar Astronomy and celebrate the event and the talented team and Engineers who made it happen with a plaque citation summarizing the achievement and its significance.

According to the attached article found in the October, 1957 issue of "Radio & TV News," Diana did continue to fulfill its mission, in this case, testing earth satellite tracking stations. One of the interesting aspects of the test was to come up with a technique that "can also be used to calibrate satellite tracking stations set up by amateurs in various parts of the Western Hemisphere, Africa, Europe, and the islands of the Pacific."



NJARC member Dave Sica escorts Princess Marconi to the InfoAge Diana site during a past visit.

Moon Radar Checks Minitrack

*Signals bounced off moon
picked up by an earth
satellite tracking station.*

SIGNALS transmitted by powerful radar equipment of the Army Signal Corps at Fort Monmouth, New Jersey, and reflected by the surface of the moon have been received by one of the earth satellite tracking stations, it was disclosed by the Army and Navy.

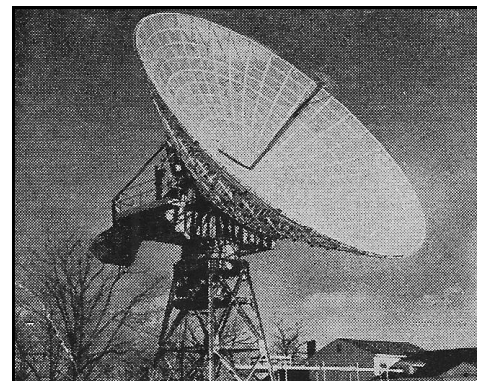
Using the giant radar transmitter "Diana," Signal Corps engineers have been bouncing signals off the moon for several years. At Blossom Point, Maryland, the Navy's Minitrack test facility has received these signals during several test pickups.

The purpose of the tests is to perfect a technique by which the operation of all of the Western Hemisphere satellite tracking stations can be tested as soon as they have been completed and placed in operation. This technique can also be used to calibrate satellite tracking stations set up by amateurs in various parts of the Western Hemisphere, Africa, Europe, and the islands of the Pacific.

The receiving equipment being used in the tests is the Mark II Minitrack being designed by the Naval Research Laboratory for use by volunteer radio tracking stations throughout the world. However, the equipment was modified because the Diana transmitter was operated at 151 megacycles for these tests instead of the regular 108 megacycle Minitrack frequency used in the satellite tracking system.

In all, there are planned some ten Minitrack radio tracking stations which, when placed in operation, will follow and report the movement of the earth satellite as it travels around the world. Stations will also pick up scientific data concerning the experiments being conducted with instruments carried within the satellite.

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Editor's Note: Member Louis (Gus) Shirley made some comments on the event via the Communicator. Considering that it was a last minute effort (some clubs starting organizing months ago), he felt the club did "very good." Apparently, considering his efforts, member Nevell Greenough has a new handle..."Iron Man." Gus said that at 7:59, one minute before official activity close, the crew received its last contact, someone who actually was looking for Marconi Special Event Stations. He said that contact was made with other Marconi stations...KM1CC Cape Cod RC, USA and VO1MD Signal Hill, Newfoundland, Canada. Even though "the majority of stations we did have contact with were not aware of International Marconi Day,...we did put InfoAge on the map."