



The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

January 2017

Volume 23 Issue 1



MEETING/ ACTIVITY NOTES

Reported by
Marv Beeferman

The ON-LINE Broadcaster

The *Jersey Broadcaster* is now on-line. Over 150 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.

Happy New Year and welcome to the 23rd edition of *The Jersey Broadcaster* celebrating the 25th anniversary of the New Jersey Antique Radio Club. Yup...that's twenty-three years of nearly continuous issues from the same editor and, unless I get a better offer, I hope to offer my services for many more years to come. But, as I stated in last year's January issue, it's up to you, the membership, to contribute relevant and interesting content to ensure a worthwhile product in the future. The *Broadcaster* is a **club** newsletter and its content shouldn't be "dictated" by a single individual. More on this later.

Our December Holiday Party at the West Lake Golf & Country Club in Jackson was very successful. Many thanks go out to Bill and Lynn Zukowski and president Richard Lee for arranging the setting, to Sal Brisindi for setting up the sound system, and to Dave Sica (and yours truly) for arranging a little entertainment. We've captured some snapshots of the event on the pages that follow. If you want to view the action of the Mystery Grab Bag gift exchange, member Bob Bennett suggests that you just curl up by the fireplace, grab an eggnog and enjoy the festivities courtesy of his YouTube "Radiowild" video. The video can be found at the following link:

<https://www.youtube.com/watch?v=14VtlARRPII>.



MEETING NOTICE

The next NJARC meeting will take place on Friday, January 13th at 7:30 PM at InfoAge. Directions may be found at the club's website (<http://njarc.org>). This month's program will include our annual DX-pedition (in preparation for January's BCB DX Contest) and a members-only auction (no "junk" please!). We'll also be collecting dues for 2016.



Jerry Dowgin was the door prize winner of this beautiful GE radio at our Holiday Party.

For members receiving the *Broadcaster* by mail, check the code next to your name on your mailing label. Honorary (H) and Lifetime (L) members are exempt from paying dues. For the rest, dues will be collected at monthly meetings and club activities or you may send a check made out to the "NJARC" to our membership secretary:

Marsha Simkin
33 Lakeland Drive
Barnegat, NJ 08005

Payment via PayPal is also available at the club's website but it will cost the club a fee. If you're receiving your *Broadcaster* via email and you're not sure about your membership status, it will be provided to you when you pay or you can contact Marsha at mhsimkin@comcast.net (609-660-8160). While you're at it, you might want to consider a lifetime membership. In any case, please renew early and avoid the membership cutoff date of March 31st!

We're kicking off the 2016 radio collecting year with a DX-pedition and a members-only auction. The "members-only" theme implies that you have paid your 2017 dues or will pay them at the January meeting. All proceeds go to the auction item(s) owner and you're requested to offer only quality items ... no "junk" please!

Also, as we close out 2016, please consider a tax-deductible gift to InfoAge to help support the continuing, all-volunteer work that preserves this National Historic Site in fulfilling its mission to maintain a science history learning center and museum. And remember - a gift to InfoAge is also a gift to the NJARC Radio Technology Museum. Donations may be made online at www.InfoAge.org or by mailing a check to 2201 Marconi Road, Wall, NJ

CALL FOR DUES

With the new year comes our call for 2017 dues. Your Board feels that the \$25 annual cost (\$30 for a family membership) still remains quite a bargain in light of the club's benefits:

- Twelve issues of the *Broadcaster*.
- An entertaining and informative web site and *Reflector* for the exchange of ideas and information.
- Two convenient meeting locations.
- Unique technical presentations and contests.
- Capacitors, tubes, resistors and parts at bargain prices.
- Resources for schematics and technical information.
- A constantly expanding and improving radio museum and library with a recently added repair facility.
- Meeting auctions, estate auctions, members-only auctions, "PAL" swap-meets and our annual InfoAge tailgate.
- Repair clinics.
- Our subsidized Holiday Party ... and much, much more.

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.

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07719.

Finally, I'd like to re-emphasize some of the points I made in last January's *Broadcaster*. They seem to be more pertinent with the start of our 25th anniversary year.

First, let's talk about the costs involved with providing a hardcopy newsletter. Presently, the total cost of printing and mailing the *Broadcaster* to 53 members who get their copy through the mail is approximately \$1000. That's about \$19 per person leaving only \$6 from \$25 dues for all other club activities! Consider this - no officers or volunteers of the NJARC receive any form of compensation for the time they put in into making the club what it is; it is strictly Pro Bono. All funds that the NJARC receives from dues, swapmeets, or any other source of revenue is reinvested into making the club a better one and in spreading the word about our activities. If you are receiving the *Broadcaster* by mail, don't you think it's about time to step up to the plate and switch to internet delivery? You can print it out on your own printer if you want a hard copy. It's great in color, either on-screen or printed. And finally, you're putting an additional \$19 into the club's treasury.

A second consideration for the newsletter regards submitted articles. Many thanks goes out to all those members who have contributed articles in the past and continue to do so. But I think we can do much better. By having articles "at the ready," it takes a lot of stress off my publication date by not having to come right down to the wire every month thinking of what articles to write for the newsletter.

If you're considering sending me something, don't worry about being perfect - I'm a pretty fair editor. I would personally appreciate it if you could take an hour or two each year out of your busy schedule to support YOUR *Jersey Broadcaster*. What to write? Consider the following:

- Show some of your collection.
- How did you get involved in antique radio?
- Show your repair bench and describe what's on it. Describe a few of your repair techniques and "kinks."
- What is one of your favorite radios? Your first early radio memories?
- Describe a recent restoration.
- Talk about code keys, tube audio, transistor radios, radio novelties, jukeboxes, early computers, early TV, etc.
- Talk about the early history of one of

your favorite radio stations.

- Review a radio-related book.
- Whatever you'd like.

Finally, let's talk about what I consider the jewel of the club, the Radio Technology Museum at InfoAge. Because of the leadership and hard work of a few dedicated volunteers, our museum continues to be one of the few remaining archives of New Jersey's historic electronic heritage. But two of its major problems is lack of volunteers and lack of display space for all the material we have in storage and limited space for the library. Fortunately, the lack of space issue may have some resolution. Subject to obtaining increased financing, the Radio Technology Museum may be able to expand to the 9036 area of the "H" building some time in the future with the library securing the present museum location.

Lack of volunteers is a much harder subject to tackle. We can't continue to burden the same people to continue to devote hours and hours of their time and efforts and expect the museum to maintain the high standards it presently enjoys. New ideas and new energy are the lifeblood of any organization that anticipates maintaining its vitality and relevance into the future.

Well, I guess I've ranted enough. I'm sure you have many additional ideas that will move our club on a successful track for at least another 25 years. But it's up to you "younger" guys to carry the ball in that direction. Let's hope you're up to the task by participating in the many activities that will guarantee the club's future.

Upcoming Events

February 10th - Monthly meeting at Princeton; Prof. Mike Littman presents "200 Years of Innovation in the State of New Jersey"

February 18th - Winter repair clinic at InfoAge

March 10th - Monthly meeting at Princeton; topic TBA

March 17th - Parsippany swapmeet

April 14th - Monthly meeting at InfoAge; topic TBA

May 6th - Spring Repair Clinic at InfoAge

May 19th - Monthly meeting at InfoAge; Radio Scavenger Hunt

June 9th - Monthly meeting at Princeton; Show & Tell, Hints and Kinks

July 14 - Monthly meeting at Princeton; topic TBA

July 22nd - Summer Tailgate at InfoAge

MUSEUM MUSINGS

By
Ray Chase



Holiday time at the museum presents some challenges. The model train group puts on a Holiday Train Show for three weekends in December. This involves train displays, a visit from Santa Claus and other entertainments filling nearly all the space in the Marconi hotel as well as the large meeting area in section 9032A. Programs run from noon to 5 PM on Saturdays and Sundays and contribute a sizeable revenue to InfoAge while bringing a huge increase in visitors to the Radio Technology Museum (RTM).

The holiday period also means many people are visiting relatives in the area and locals who enjoy our facilities often bring their visiting friends to the museum. This is all mostly positive but in order to cope with the traffic, that easily exceeds 100 visitors per day, we have had to schedule at least three docents at the museum. Regular RTM volunteers have stepped up to the task and this is a good chance for new volunteers to get some docent experience as well. Although the train group does a great job in providing entertainment for all ages including young children, many toddlers and 1st and 2nd graders run around the museum without proper parental control. So, as you can guess, little hands are free to twist knobs and grab things they should not touch.

It's quite a challenge to keep the younger set under control while working with older kids and adults who are genuinely interested in our displays. Our "Hands On" room, where touching is allowed, is usually filled and is our biggest draw for all age groups. It was so crowded during the first weekend that we had to move some of the displays out to the rear of the museum to handle the crush during the following two weekends. A complete check out and repair inspection were re-

quired on the following Wednesday work day to ensure everything was back in shape.

Call for Volunteers

Keeping track of museum volunteer hours is important for InfoAge as this adds much weight to grant applications. It demonstrates the level of dedication to the institution. Around March of 2016, we started using time sheets to quantify who was present at our Wednesday work days and how many hours were volunteered. As 2016 closes out, we have tallied a total of 2001 hours. Add to this approximately 900 hours that were volunteered all year by docents on Saturdays and Sundays during regular museum hours and the numbers are truly impressive. Many thanks go out to those who contributed their time. In 2017, let's see if we can beat this. There is plenty of work still to be accomplished with plenty of room for willing hands and minds so come on down and join in.

Museum Outreach

The museum crew, headed by Al Klase, has become involved in the IEEE Engineering Mini-Academy program, an undertaking to inspire high-school students to pursue careers in engineering. NJARC members will be participating in February with guiding the assembly of a simple FM transmitter using one transistor and emphasizing the concept of "bread-boarding." Following assembly, the students get to attach their mobile device and see how far they can hear their favorite music. A test run was carried out a few weeks ago victimizing some 11th graders and it was a notable success.



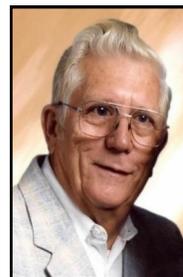
Now Al needs to gear up to produce about 10 kits. Most of the parts are easily available on eBay, directly out of China for almost no money, but we need some variable capacitors. We're looking for something in the neighborhood of 50-75 pF that's easily panel mounted and has a

1/4" shaft. If you have any to spare, contact Al at ark@ar88.net.



BOB HAWORTH PASSES

By
Marv Beeferman



On November 12, NJARC member Robert Frank Haworth, 90, passed away in Minnetonka, MN. Many of us may remember Bob's invitation to his home to participate in "thinning out" his collection in a mega cleanout in August. Our host, the Barkoff family, said that Bob was happy that many of his unfinished projects went to homes where perhaps some day they could be taken to completion.



Bob Haworth prepares to invite NJARC members to his home to help thin out his collection.

Bob was born on November 22, 1925 in Baltimore, MD and took an early interest in the (then) relatively new medium of radio. He became one of the youngest HAM radio operators in the country when he qualified for his license (W2PUA) in 1937 at age 12.

Immediately after the attack on Pearl

Harbor, while still in high school, he began working as a steamfitter's helper at Kaiser Corp. shipyard in Camden, NJ. Upon graduation in mid-1943, Bob enlisted in the U.S. Navy and, until 1946, served in the continental U.S. as an airborne radio and radar maintenance trainee and technician. While employed as an assistant in the chemistry laboratory at the Franklin Institute in Philadelphia, he studied at night for eight years to earn a Bachelor's degree in Electrical Engineering at Drexel Institute. He was employed as an Electrical Engineer at RCA in Camden and Cherry Hill, NJ from 1953 to 1988 when he retired.

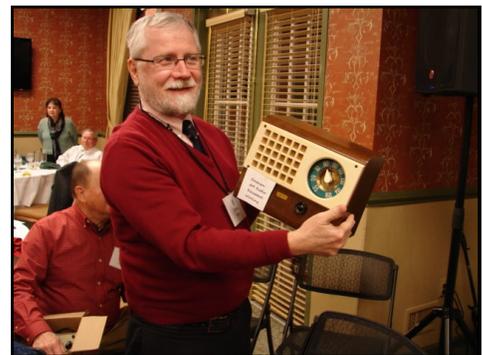
A patent holder, Bob's key accomplishments included leading the RCA team that designed the radio responsible for maintaining communications between Apollo XI's Lunar Excursion Module and the earth as relayed via the lunar orbiter. It was this device that, in July 1969, enabled all of mankind to hear Neil Armstrong declare "one small step for man..." as he set foot upon the Moon. During the 1970s and '80s, he provided his engineering expertise to a number of classified Department of Defense projects, including nuclear submarine communications.

Bob's hobbies included studying the military history of the American Revolution, collecting and restoring antique radios, classic car repair and sailboat building. He was a skilled craftsman in both wood and metal. Between 1960 and 1969, he personally constructed from plans an 18-foot wooden and 29-foot Fiberglass sailboat - both completely seaworthy, with full sailing kit and auxiliary engines - in the backyard of his family's suburban home in Somerdale.

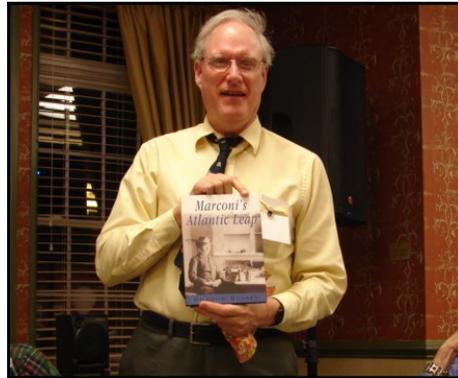
The NJARC sends out condolences to all of Bob's family members and friends on the loss of a fellow brother in the antique radio community.



**HOLIDAY PARTY
2016**







**THE 2017
NJARC
DX-PEDITION**



As a prelude to our 2017 Broadcast Band (BCB) DX Contest, Technical Coordinator Al Klase will host our annual "DX-pedition" at InfoAge as part of the January monthly meeting. The basic concept of the DX-pedition is to gather together a working collection of radios representing the various eras of receiver design in an environment that will allow participating NJARC members an opportunity to operate each type of set. Hopefully, the experience will provide inspiration for greater participation in our BCB DX Contest to be held between January 20th and January 29th.

We're going to take advantage of the great facilities and hopefully quiet listening environment available to us at InfoAge. The primary theme will be broadcast band DX and battery-operated sets, but antenna facilities will also support short-wave and long-wave operation as well.

If you plan to attend the January meeting, please try to come with sets in good working order that you don't mind having other club members operate. If you could bring a length of coax with a BNC connector on one end that can be

connected to your radio, it would be helpful. We'll try to supply additional cables and adapters, but your help would be appreciated.

We'll try to coordinate the different types of radios that show up so we don't end up with mostly All-American-Fives. Please contact Al Klase at 908-892-5465 or ark@ar88.net to register the type of radio(s) you plan to bring. It would be nice to have representative receivers in the following categories:

- Crystal sets
- Battery sets: Regens, TRF-regens, TRF's and Superhets
- 1930s and 40s AC sets: TRF's and Superhets
- Other entertainment sets
- Communication receivers: TRF Auto-dynes, single conversion, multiple conversion
- Transistor radios

Various antennas will be provided and you're welcome to bring your own tuned loops for the broadcast band. We might consider playing into the wee hours if enough interest exists.

**THE RADIO
GARDEN**

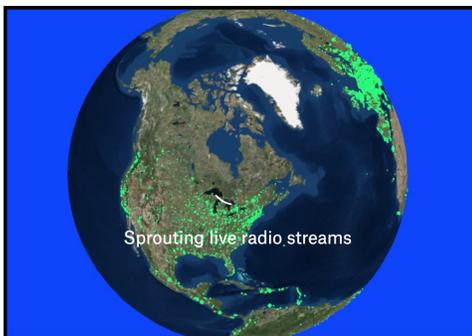
**Adapted by
Marv Beeferman**

The following article was suggested by member Dave Sica and adapted from the Dec. 12, 2016 "Atlantic" article "The Map That Lets You Listen to the Radio Everywhere"...Ed

Internet DXing has never gotten easier. Dec. 12, 2016 marked the launch of the Radio Garden app which basically provides a way "to know humanity through its sounds and its music." It's an interactive map that lets you tune into any of thousands of radio stations all over the world in real time. In an instant, you can click to any dot on the map and hear what's playing on the radio from Miami to Lahore, from Lahore to Berlin, and beyond. Each green dot on the Radio Garden map represents a new location, and therefore a different station. In the case of major locations like Amsterdam, Argentina, Nairobi, Paris, and so on, the site will let you choose from several stations in the area.

The project was created for the Netherlands Institute for Sound and Vision by

the interactive design firms Studio Puckey and Moniker. It was built using an open-source WebGL globe that draws from thousands of radio stations, both terrestrial and online. In a way, the app allows you to travel through time - or at least, time zones. So when it's 5:08 a.m. in Nome



Alaska, and the local radio station is playing "Mercy Came Running," - a song by the Christian trio Phillips, Craig and Dean - it's also 5:08 p.m. in Moscow, where Haddaway's 1993 hit "What Is Love" is on the radio.

At the same time, you might find Bruno Mars's "Grenade" playing in Rome, where it's 3:08, and Billy Idol's "Dancing With Myself" playing in Honolulu, where it's 4:08 a.m., and The Talking Heads's "Wild Wild Life" playing in Buenos Aires, where it's 11:08 a.m. (That's in addition to all the songs in languages other than English playing everywhere from Ghana to Egypt to Mexico.)

Listening to the planet this way can leave one feel both detached while still connected. For one thing, radio as a medium often has a similar sound. That's not just because American pop music is a global export but because of similarities in how radio is produced around the world. Local stations, wherever they are, often broadcast a mix of music, ads traffic and weather reports - and deep-voiced announcers adopt a similar tone across cultures. The aesthetic of the Radio Garden site, which uses satellite imagery rather than maps with political borders, helps promote a feeling of connectedness.

At present, the site does have its limitations. It depicts far more stations in the United States and Europe than in Africa and Asia, an imbalance that's partly technical and partly cultural. For one thing, and especially in Asia, many radio streams are using proprietary streaming codes which are not supported by web browsers. Secondly, the team that created Radio Garden is based in Europe and consists of mainly English speakers, which makes it harder for the site's designers to find and create non-English streams.

Perusing Radio Garden, you begin to

imagine people listening to music as they make coffee, people sitting in offices and in waiting rooms, people dancing at the bar after last call, people cooking dinner for their families, and people driving to work before dawn. Some of these people may look like you and some may not. Some live in the lands of your ancestors, but speak languages you cannot understand. Though you may never meet these people, you can begin to know them by listening to what they hear on the radio.

The Radio Garden app also lets you explore historic radio clips and jingles - the kind that signal what the station is about. The "Stories" tab includes a smattering of interviews and educational programming. Some are about transnational radio and others more generally talk about international exchange, like an Arabic lesson broadcast in Montreal and a storytelling program about borders from Milan.

Interested? Just Google Radio Garden and you'll find a number of sites from which the app can be downloaded or go directly to <http://radio.garden/>.

BITS AND PIECES
By
Marv Beeferman

In parallel with establishing our new repair shop at InfoAge, museum personnel are consolidating and identifying the numerous parts, test equipment and tools presently spread throughout the facility. The ultimate purpose is to provide easy access to these materials which includes organizing them in a central location and labelling them accordingly. Occasionally we come across some interesting "stuff" during our search and the item pictured below is typical. Can you identify it? The answer will appear in next month's *Broadcaster*.



Member Matt Reynolds has reported that researchers from the Harvard John A. Paulson School of Engineering and Applied Sciences have made the world's smallest radio receiver, built out of an assembly of atomic-scale defects in pink diamonds. The radio uses tiny imperfec-

tions in diamonds called nitrogen-vacancy (NV) centers.

In the Harvard device, electrons in diamond NV centers are powered, or "pumped," by green light emitted from a laser. These electrons are sensitive to electromagnetic fields, including the waves used in FM radio. When an NV center receives radio waves, it converts them and emits the audio signal as red light. A common photodiode converts that light into current, which is then converted to sound through a simple speaker or headphone. An electromagnet creates a strong magnetic field around the diamond, which can be used to change the radio station, tuning the receiving frequency of the NV centers.

The tiny radio can withstand extremely harsh environments and could work in places as varied as a probe on Venus to a pacemaker in a human heart. The team successfully played music at about 660 degrees Fahrenheit.

As reported in Vol 5, Issue 237 of the daily radio newsletter "Tom Taylor Now," the Multicultural Media, Telecom and Internet Council (MMTC) has told the Trump team that it is "time to start thinking about a future without AM radio." In fact, the public interest group has gone as far as stating that AM radio may disappear in 30 years or less. It's formed its own "AM Glide Path Task Force" and proposes an effort comparable to "government programs transitioning tobacco farmers to other crops and transitioning coal mining to other energy sources."

The MMTC says that AM is still important, especially to the minority community. ("Approximately 60% of all minority-owned stations are AM facilities.") It also reminds policymakers that the great majority of multilingual radio service today is found on the AM band. But despite its near-century of usage and some modest engineering reforms from the FCC, AM has big issues. There's declining listenership and a lack of capital flowing in.



The 2017 NJARC BCB DX Contest - January 20 to January 29

In the 1920's and 1930's, some radio listeners would compete with each other for the reception of the most distant stations using the same receivers that we now restore and cherish. We can recapture some of the excitement that the early DX'ers experienced in our own contest.

Official Contest Rules

THE OBJECT: To use vintage radio receivers to receive broadcast-band signals from the greatest possible distance. Performance will be judged by the total mileage for your ten best loggings during a 24-hour session. You will be competing against competitors using similar receivers.

ELIGIBILITY: The contest is open only to members in good standing of the New Jersey Antique Radio Club.

CONTEST PERIOD: The contest period will be from 12:00 Noon, local time at the receiving location, Friday, January 20, 2017 through 12:00 Noon, Sunday, January 29, 2017.

SESSIONS: Contestants may submit logs for any two 24-consecutive-hour sessions (noon to noon) during the contest period. You may use only one receiver during a session. That means you may not "bird dog" the simple radio with a more complex radio. You may submit logs for two different receivers. They need not be in the same category.

FREQUENCIES: The Broadcast Band, as defined for the contest, will be from 530 to 1600 kilocycles. No stations on the new extended band, 1610 to 1710 kilocycles, will be counted since many early radios did not cover those frequencies.

RECEIVER CATEGORIES:

- A - Crystal radios
- B - Primitive tube or transistor receivers (homebrew also) -1 to 2 tubes or transistors, plus power supply.
- C - 1920's battery sets (homebrew also) - batteries or modern power supply are OK.
- D - Other tube radios sold for home entertainment.
- E - Amateur, commercial, and military tube-type communications receivers.
- F - Any radio of your choosing.
- G - "Light-Weight": Any radio weighing less than one pound (454 grams).

SPECIAL AWARDS will be given for the best performances by first-time contestants.

ANTENNAS: Anything you like.

LOGS: Submit a log for each of your contest sessions (maximum of two). Each log header should include contestant's name, address, e-mail address if applicable, phone number, category, and description of receiver and antenna. Please include your listening address if it is different from your mailing address.

Make a log entry for each station you claim to have heard. Stations must be positively identified. (This is being done on the honor system, and is a somewhat variable concept. If you hear Boston weather on what you know is 1030KHz, then go ahead and log WBZ. However, just because you heard a signal on 1160KHz doesn't mean you heard KSL in Salt Lake City.) The contest committee reserves the right to disallow what it feels are outrageous claims. Each entry should include time, frequency, call letters, location, and optional comments. Although we're only judging your ten most distant loggings, submit as complete a log as possible. The committee may make special awards for most stations, most interesting log, etc. as it sees fit.

A log sheet has been provided by Al Klase for convenience. You may reproduce it or generate a similar one of your own.

Logs must be postmarked not later than midnight Monday, February 6, 2017.

Logs may be submitted as email attachments.

SCORING: Distances to stations will be calculated by the committee, and will be based on great circle distances from Freehold, New Jersey for listening posts within a 100-mile radius of Freehold. We will calculate mileage for other entries based on actual listening location. In all cases, please indicate your ten best loggings to make our job easier.

Special Rule #1: A contestant may claim only one of the Cuban time stations, Radio Reloj, regardless of how many are actually heard. All will be scored as 1279 miles (Havana).

Submit logs to: Tom Provost, 19 Ivanhoe Dr., Robbinsville, NJ 08691, tprovost@pppl.gov

Questions: Al Klase - 908-892-5465 - ark@ar88.net, Tom Provost - 609-243-2508, tprovost@ppl.gov

A photo of you and your rig and its description and comments on your listening experience will be greatly appreciated. Please send to Marv Beeferman at mbeeferman@verizon.net.