

www.w3uu.org



Harrisburg Radio Amateur's Club Newsletter

HRAC meets the second Wednesday of each month at 7:00 pm at HACC, Shumaker Public Safety Center, Gate 5 on Industrial Road in Harrisburg (Elmer Time starts at 6:30PM)

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From The Desk of The President.....

I'm sure that by now, most, if not all, of you have heard that our newsletter editor, Shelby (K3EMT) has become a silent key. Her contributions to the club as secretary and newsletter editor as well as her willingness to help with various club functions and projects earned her the respect of the membership. So much so that she was honored as our Ham of the Year. She often told me that her goal was to make the club better. I think that she was very successful in that respect. Her legacy to the club and the hobby will not be forgotten. Terry (WB3BKN), our acting editor, has put together a tribute to Shelby in this edition.

Last month was a busy one, with the PA QSO Party and Jamboree On The Air (JOTA) on consecutive weekends. I hope that those of you who were so inclined got a chance to participate in either or both of those events. I finally managed to log my 100th PA contact during the QSO Party. My log (and my check) have been sent to the PA Keystone Award manager. I was just a few contacts short after last year's QSO Party, and I'm not as conscientious about logging contacts as I should be, so it took a little longer to hit the 100 mark. Hopefully I will be receiving my certificate soon, possibly at the next meeting.

For JOTA this year I was planning on participating in an event put on by the local scouting district, but due to circumstances beyond their control, the event was canceled at the last minute and there wasn't time to plan an alternate event. Oh well, there's always next year...

But not to be left out, a group of scouts were participating in a JOTA event in the York area. (See the news item later in this edition.) As I was out and about during the morning I had my mobile rig on scan and heard them talking on the 146.970 repeater. After a while the ham they had been talking to had to sign off, so I took up the QSO. I made contact with a number of scouts to enable them to meet the requirements for earning their Radio Merit Badge. They were all surprised to learn that I was in the Harrisburg area and yet still able to talk to them as if we were sitting side by side in the same room. Ah, the joys of youth, when so many things are wondrous and magical. I strongly encourage you to get on the air and talk to the scouts when JOTA weekend comes around. You never know when you might plant the seed that develops into a fellow ham.

October Meeting Minutes

The October 8, 2014 meeting of the Harrisburg Radio Amateurs Club was called to order at 1903 HRS by the president, Tim (KB3OZA).

Secretary Report - The minutes of the September meeting were published in the newsletter. Chuck (N3WL) made a motion to accept the minutes seconded by Doug (K3DRE). Motion PASSED

Treasurers Report - Joe (KQ3F) presented the treasurer's report. Doug (K3DRE) made a motion, seconded by Rick (K2RBT), to accept the report. Motion PASSED

Trustee – There was a motion made by Terry (WB3BKN) to keep Steve (KA3PDQ) the club license trustee, seconded by Chuck (N3WL). Motion PASSED

Repeater – No Report

VE Committee – The next test session will be Oct. 18

Membership Committee – Tim (KB3OZA) reported there is 1 new membership since last month

Newsletter – Not present.

Web page – No Report.

EMCOMM – Marty (KB3BAA) reported

- The ARRL Simulated Emergency Test was held Oct. 4
- Help is needed for the Marine Corps Marathon, if interested Contact Marty (KB3BAA)
- Help is needed for JOTA (Jamboree on the Air) Oct. 18
- There will be a MARS Exercise Oct. 28 & Oct. 29 Volunteers are needed
- The Susquehanna Nuclear Power Plant drill will be held Oct. 21 at 1600 hrs.

DXCC –Not Present

Entertainment – Nick (AA3T) reported the following:

- Doug (K3DRE) will do a presentation on MARS this month
- Possible Future topics include: SSTV

Winter Ham Fest – Tim (KB3OZA) reported that the student union building has been reserved.

Elmer Time –Next month Pete (KB3WIH) will do a presentation All About Linux

Possible Future topics: Group electronic kit build

Old Business –.The order was placed for the (5) Inexpensive HT's

October Meeting Minutes, continued

New Business – None

Good of the Club – Tim (KB3OZA) reported:

- The Nominating committee has been made, consisting of Steve (KA3PDQ), Terry (WB3BKN), and Doug (K3DRE), they will create a list of nominees for the November meeting and voting will be at the December meeting.
- There will be a special event station, W3W operated by Rick (K2RBT) Oct. 18 commemorating the 75th anniversary of the Coast Guard Auxiliary
- The PA QSO Party will be Oct.11 & Oct 12th for rules see the contest website

Adjournment – There being no further business to conduct, Doug (K3DRE) made a motion, seconded by Rick (K2RBT), to adjourn. Motion PASSED Meeting adjourned at 2005 HRS.



W3UU
is
ARRL Affiliated



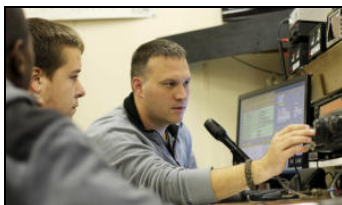
Weekly HRAC Net

The weekly information net is held every Wednesday at 8:00 PM on the 146.76– repeater, except for the second Wednesday of the month, which is club meeting night.

Please send any articles for the newsletter to Terry@DJTerry.com

The next VE Testing session will be on Saturday December 20, 2014 at 9:00 am at the Shumaker building on the HACCCampus. The Shumaker building is at Gate 5 on Industrial road, Harrisburg, PA. Please arrive by 8:30am

York-area Scouts use ham radios to talk to scouts around the world



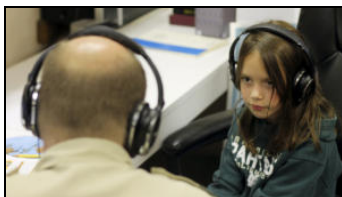
Under the guidance of the Keystone VHF Club members, York-area Scouts spoke with other Scouts hundreds and even thousands of miles away. (SEAN COTTER — scotter@yorkdispatch.com)

The legend surrounding the source of ham radio's name sounds like a bad punch line, but Brad Kline says he's heard it's the truth.

Here's how it goes: In the radio's early days, the amateur radio users kept talking too much, hogging the airwaves, Kline said.

"They kept hamming it up," said Kline, a member and one-time president of the York-area Keystone VHF Club, a 140-member organization of ham enthusiasts.

So government officials began to refer to them derisively as "hams," but the amateur radio operators readily appropriated the moniker, said Kline, whose call sign is KO3T — now, they call themselves "hams."



Ava, 6, a Girl Scout Brownie, and Troop 25 assistant leader Jeff Patterson search the airwaves for other Scouts to talk to.

York area scouts continued

The VHF club's building at 3650 Deininger Road in Springettsbury Township, replete with a bristling array of aerials and radio towers, hosted York-area Boy and Girl Scouts on Saturday, allowing the kids the chance to take part in the 57th annual international Jamboree-on-the-Air.

During the Jamboree-on-the-Air, or JOTA, as the radio operators shortened it to on the airwaves for concision's sake, involves scouting groups around the world partnering up with local hams in an effort to talk to far-away scouts.

The York-area Scouts had good luck Saturday chatting with their counterparts around the U.S. And during the afternoon, assistant leader of Troop 25 and licenced ham Jeff Patterson — call sign KB3RLT — said they might find international Scouts as night rolled in and the airwaves became less crowded.

York's Perry Bevivino, the father of Joey, a 9-year-old scout in Troop 25, said his son originally "wasn't super excited" at the prospect of the event.

But after Joey finished up a brief conversation with Alex, a 17-year-old Eagle Scout from the Chicago area, he expressed somewhat different sentiments when asked if he'd want to use the radio again.

"Yeah, definitely," Joey said with a smile.

Merit badges: The Scouts were working toward gaining their radio merit badges.



The "VHF" of Keystone VHF Club's name stands for "very high frequency," a mode of radio communication that has a shorter range but can transmit more data, including images.

"The best part about ham radio is that it teaches procedure," said Calvin Miller, call sign KB3PRD, an assistant leader for Troop 64.

He said it teaches people to be clear, concise and to have attention to detail.

Long Delayed Echoes

Looking back through the rich history of the Harrisburg Radio Amateur's Club

Compiled by Mark Robinson WB3JIS

Here's an interesting piece of correspondence. This is the letter written to the FCC in 1967 requesting the W3UU call sign transfer. The fee at the time was \$24. That would be \$171 in today's dollars!

P. O. Box 367
Camp Hill, Pennsylvania 17011
December 21, 1967

Engineer-in-Charge
Federal Communications Commission
Gettysburg, Pennsylvania 17325

Dear Sir:

Application is made herewith for the specific assignment of Amateur Radio Station Call Letters W3UU to the Harrisburg Radio Amateurs Club, Inc., as covered by Section 97.51 (3).

This proposed memorial station will be installed and located in Room 217, William Penn Memorial Museum, Third and Forester Streets, Harrisburg, Dauphin County, Pennsylvania, and will be operated in conjunction with the Pennsylvania Association of Broadcasters permanent display.

We have obtained the release of this call from Mr. Donald Thompson, brother of Mr. Marlin Thompson, deceased, a former member of the Harrisburg Radio Amateurs Club, Inc. The original letter from Mr. Donald Thompson is attached for your records and in support of this application.

Thanking you in advance for your favorable action on this request, I am

Very sincerely yours,

Harold L. German, W3IMN
President
Harrisburg Radio Amateurs Club, INC.

HG:dh

October Ham Radio Outing

On Sunday, 5 October 2014 about ten of us drove to the top Broad Mountain and carried our radios, antennas, wires, and power sources to a clearing and set up shop. Everyone had a great time and we all made quite a few contacts. Some DX, and some rag chewing. Here are a few pictures of our day.



Monthly Ham Radio Lunch

The last Thursday of each month there is a Ham Radio Lunch at the "Old Country Buffet" at noon (unless it is a major holiday).

This restaurant is located on Route 22 in Colonial Park in the vicinity of Value City Furniture, K-Mart and Home Depot.

It's a great way to meet new people!

The Unsung Heroes, and more thoughts by Richard (KB3YRC)

Most amateur radio hobbyists are willing to help others, and have in the past year either with their knowledge, or by actually getting out and getting dirty. A group of members and nonmembers had assisted those who could not do it by themselves in re-erecting and repairing other antennas. If the word gets out that you need some help, they help. Last week two members went west to help an elderly lady amateur in a wheelchair. They made repairs to a ground strap system, and tested her antenna, and she's off to DX land as Happy Young Girl, (next week her 2 meter antenna). Another day this summer, a young scout and his father were went up on the roof and changed out a bent mast.

Luncheon: There were 20 or so at the last ham radio luncheon. Come join us at the Old Country Buffet for lunch on the last Thursday of the month, unless it is a holiday. If it is a holiday, we meet the Thursday before that. We start at 11:30am and stay until the stories are all told.

There is a group that meets at 7pm on the 145.21 repeater. The group started on a simplex frequency and soon realized that they would need to take the party to a repeater. What began as five friends who just wanted a reliable place to talk to each other began to grow, and is now up to twenty and growing. Come join us on 145.21 at 7pm. We want to hear from you.



The Mid-Atlantic's
Largest Winter Hamfest!

Welcome to Frostfest!

Frostfest 2015 will be held on
Saturday, February 7
at the Richmond Raceway Complex!

Everything you need to know about the Mid-Atlantic's Largest and First Hamfest of the year is **right here!**

We're looking forward to providing a host of vendors, plenty of forums and group meetings, as well as being the Virginia State ARRL Convention.

Check out all the details at www.frostfest.com!

Here are the results for the VE test session held on Sat Oct 18, 2014

9 Applicants

9 elements taken

Successful Applicants; 7 Tech, 1 Extra, 1 unsuccessful applicant.

VEs at the session;

Tim Lehman, KB3OZA

Steven Gobat, KA3PDQ

Steve Hancock, N3FWE

Bill Rawlings, KE3YC

Thanks to all who helped. Next Session 12/20/2014

Pending HACC approval the test dates for 2015

January 24, 2015 @ the Hamfest HACC

February 21

April 18

June 20

August 15

October 17

December 19

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for quotes and personalized service.

Shelby Minier (K3EMT) April 1, 1974 to October 28, 2014

Tuesday October 28, 2014 the world lost a special lady. Shelby was a very gifted lady who, among other things, created the newsletter that you have been reading for the past several years. Shelby has been quite active in our club and was always available to help with projects and events, and was also the club secretary for a while. She was a recipient of the Ham Of The Year award, as well as a special award for the work done on creating, and editing this newsletter. Shelby had many plans for the future, and she will be missed by all who knew her.



Antares Rocket

Most of you have undoubtedly heard by now that the Antares rocket, launched from NASA's Wallops Island Launch Facility in Virginia, blew up 6 seconds after lift off.



Unfortunately, the rocket was carrying various OSCAR satellites, specifically the GOMX-2 and RACE CubeSats. Fortunately, it appears that no ground personnel were injured or killed by the mishap.

According to the ARRL:

"The 2U GMX-2 CubeSat was intended to test a de-orbit system designed by Aalborg University in Denmark. Karl Klaus Laursen, OZ2KK, is listed as the "responsible operator" on International Amateur Radio Union frequency coordination documents. The Amateur Radio payload proposed using a 9.6 k MSK data downlink on 437.250 MHz. Also on board was an optical communications experiment from the National University of Singapore. The mission also hoped to flight qualify a new high-speed UHF transceiver and SDR receiver built by an Aalborg University team.

The Radiometer Atmospheric Cubesat Experiment (RACE) CubeSat was a joint project between The Texas Spacecraft Laboratory (TSL) at the University of Texas-Austin and NASA's Jet Propulsion Laboratory (JPL). It carried a 183 GHz radiometer, a new science instrument designed by JPL. The primary objective of the RACE mission was to collect atmospheric water vapor measurements. The spacecraft was equipped to transmit using GMSK at 38.4 k and CW telemetry on a downlink frequency of 437.525MHz, as coordinated with the IARU. TSL's Edgar Glenn Lightsey, KE5DDG, was listed in the IARU coordination documents as the responsible operator."

The Antares rocket is a design of the Orbital Space Sciences group. It was on a re-supply mission to the International Space Station and had 5000 pounds of cargo as well as more than two dozen satellites on board. Mankind has been launching payloads into earth orbit for 57 years now. This just goes to show, that as much as this is "rocket science" - that stuff still happens.

From the Editor's Desk

It has often been said that one has big shoes to fill. That is the way I feel at the moment. Shelby has done an excellent job compiling our newsletter. The new and fresh look that she brought has been greatly appreciated. I will do my best to carry on her traditions, but I fully understand the many challenges that she faced monthly.

I welcome and encourage submissions to be published. I am just asking for you all to understand and follow a few guidelines. As an editor, my job is to compile stories as submitted to me, and to check for misspelled words, and grammar problems. Your job is to submit a ready to print article. If you have pictures, please add them to your email and they will be placed into the article. If your story is only fragmented sentences, or just copy points, it will be returned to you to correct. This is not because I am a bad guy, but because it takes valuable time to decipher the meaning intended. Please write any articles from the viewpoint of a reader who knows absolutely nothing about the subject.

Please do not wait until a day before publication date to submit things. If that is done, it will not be included. Most, if not all regular information is known by the middle of any month, and should be submitted immediately. If you are writing an article about an event, write it while the event is fresh in your mind, and submit it. Don't wait until the end of the month. Send articles to Terry@DJTerry.com .

Wow... I sound like a tyrant, don't I. I hope not, I just want to do the best that I can, and we are a team. Let us all work together to keep Shelby's legacy going strong long into the future.

Tnx 73

Terry WB3BKN

NOAA Weather Announcements for Repeater Systems

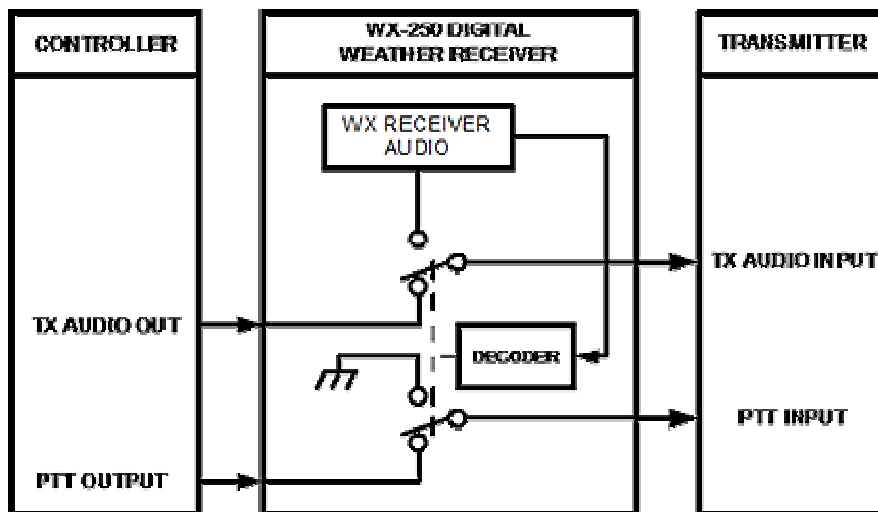
KB3OFE



Adding Weather Alerts to a repeater system can provide timely and valuable warnings for all listeners, commercial options to achieve this are somewhat pricey and may not respect the needs of the repeater users in a critical weather scenario.

The NOAA Weather Radio ([NWR](#)) service provides an excellent opportunity to broadcast pertinent safety messages on our repeater; furthermore, with the advanced [SAME](#) code technology we can ensure the messages are specific to our needs and location.

One of the challenges with the implementation of these systems is the way they completely take over the repeater audio path, often playing a lengthy voice announcement at a time when the repeater is already in use and most needed to coordinate a reaction to the information. Just look at this wiring diagram from the [WX-250](#) manual.



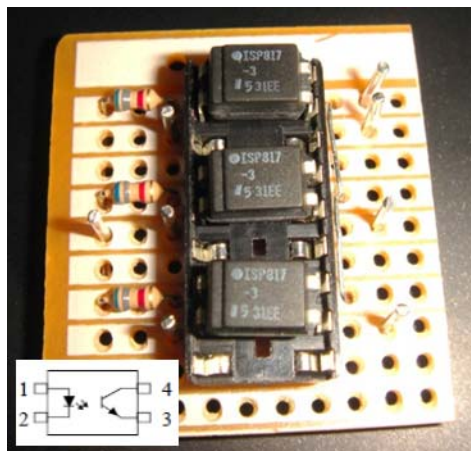
In my opinion, the repeater controller is the only system component that should have this level of authority and it is not necessary to regurgitate the entire Wx message audio when all of us have radios capable of receiving the 162.55 Mhz FM audio directly, in fact most modern HTs have the ability to decode the [all hazards](#) 1050 Hz tone automatically to play the audio too. It just makes more sense for the repeater to simply and succinctly announce "Weather Warning", "Weather Watch" or "Weather Advisory".

With that said, I also take issue with the \$500 price tag of the WX-250 and feel we can get a better result by hacking a low cost [Public Alert™](#) certified residential radio that costs a fraction of the price and hooking it to the CAT-1000 repeater controller digital inputs.

I purchased a [Midland WR-120](#) unit for \$29 (see picture), choosing this radio because it had a large message display area, an external antenna connector and three discrete LED indicators for Advisory, Watch and Warning alerts.



After dismantling the unit to trace the signals driving the LEDs, I soldered wires to the PCB traces, tested the alert signal orientation and levels and designed a simple opto-isolating interface for our repeater controller (CAT-1000).

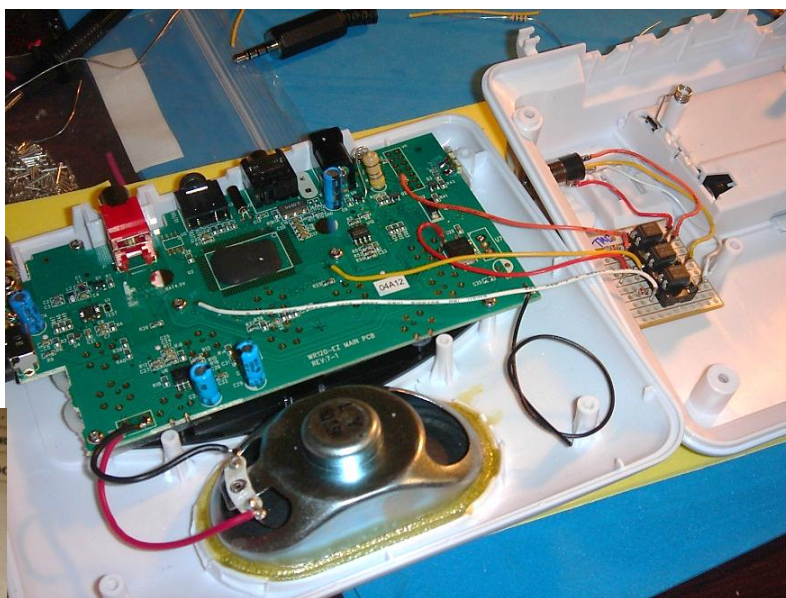


Using three low input current and high transfer ratio ISP817 opto-isolators with added series limiting resistors kept the loading on the WR-120 processor pins to a minimum and provides common sense protection (picture left)

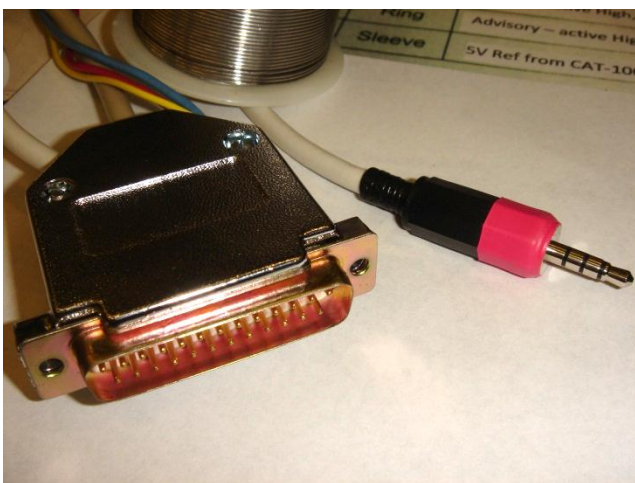
The interface board was tucked into its new home and held in place with a simple notch in one of the mounting posts of the lower housing.

Signals from the interface are made available to repeater controller via a four position connector mounted on the left side of the lower radio casing.

When complete, this is how the interface, connector and wiring looked before putting everything back together.



The weather radio cable was wired into the controller connector that plugs into the CAT-1000 repeater controller. The controller has eight TTL inputs which can be programmed to trigger macros. Three inputs are used for this project, one for each type of alert. The same input-macro technique is used to change the courtesy tones when someone is inside the clubhouse.



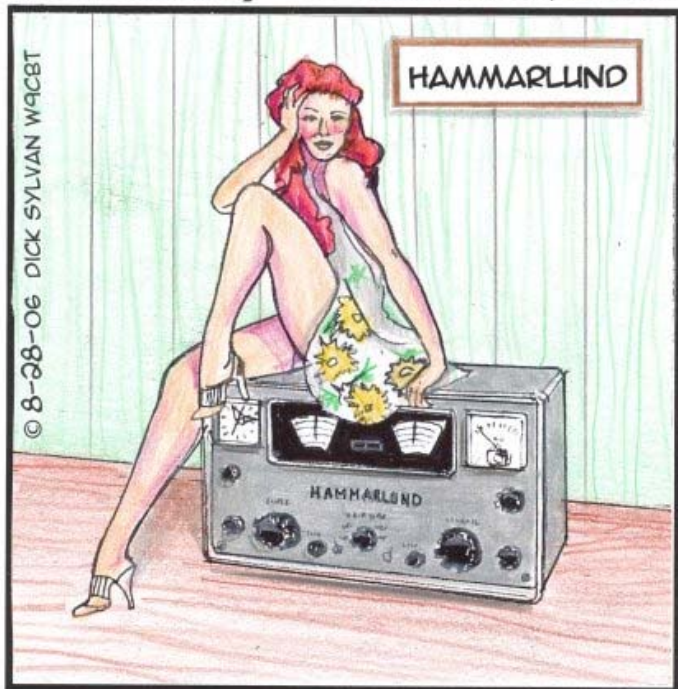
With the repeater controller programmed and plugged into the interface, each alert type was tested for the desired repeater controller voice announcement (picture left).

The repeater provides succinct announcements for each weather alert type as soon as they occur and then at a suitable interval until the end of the weather alert condition.

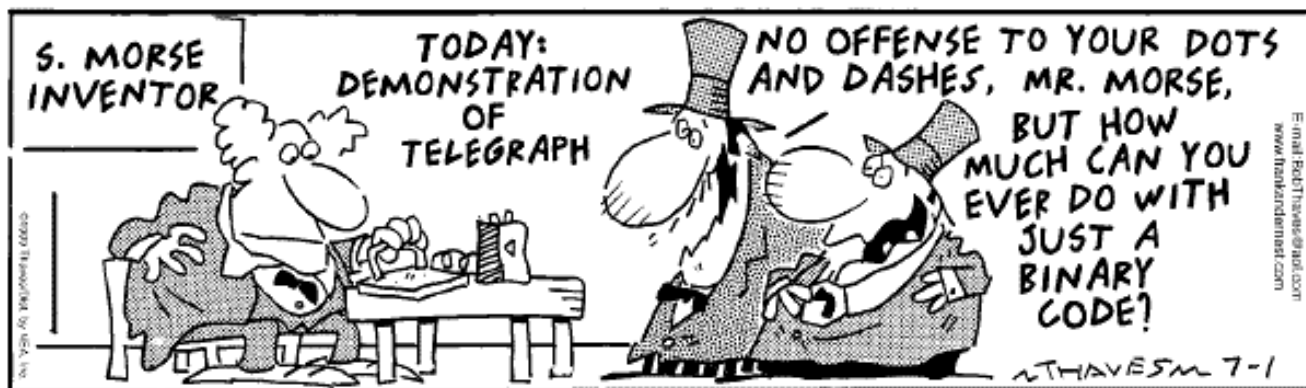
Optionally the repeater controller was also programmed to reduce Timeout Timer and change the courtesy tone during a weather alert

I particularly like this approach, not only because it can be implemented for less than \$40, but because it does not depend on internet connectivity and also provides local audio warnings direct from the Wx Radio speaker in the repeater room too.

Ham History BY DICK SYLVAN, WQCBT



REMEMBER THE OLD HAMMARLUND HQ-100 RECEIVER FROM THE MID-1950'S ?



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MEMBERSHIP APPLICATION

MAIL TO:
Tim Lehman (KB3OZA)
PO Box 453
Harrisburg, PA 17108-0453
717-982-8550

Make checks payable to HRAC—Membership is \$15.00 (\$7.50 if over 62) per year.
Dues end December 31st.

NAME _____ CALL _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

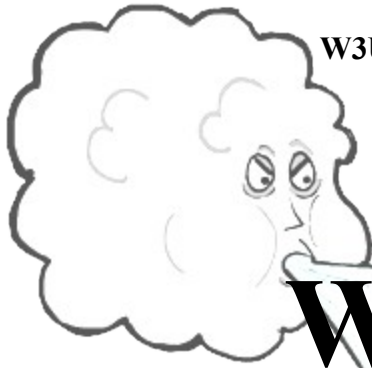
PHONE _____ E-MAIL _____

ARRL Member: Y _____ N _____

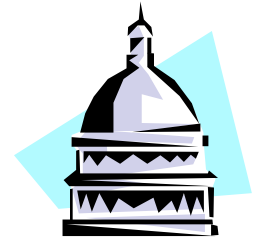
SIGNATURE _____

I agree to abide by the guidelines of the membership and The Harrisburg Radio Amateur's Club, Inc.

W3UU - **Harrisburg Radio Amateurs' Club** – WinterFest



JANUARY 24th 2015
(Saturday)



WINTERFEST

“**A Harrisburg Pa. Hamfest**”

Cooper Student Union, South Hall

1 HACC Drive

Harrisburg, PA 17110

N 40.29623 W 76.88805 (parking lot)
(HACC Campus - Follow Signs)

8:00 am to Noon

TALK-IN 146.76 (PL 100 hz)

- ◆ Admission, **\$3.00** per person.
- ◆ **First table free. Additional tables \$3.00 each!**
- ◆ Food and drinks available
- ◆ DXCC/WAS/VUCC QSL Card checking on site
- ◆ Amateur radio testing at 10:00 am
- ◆ Please, be courteous to your fellow hams by using reasonable table space. If you can use ½ table, please do so. (based on demand)



No reserved table space

Unloading can be done at the main doors, and then move vehicle to the parking area

General Admission: 8:00 AM

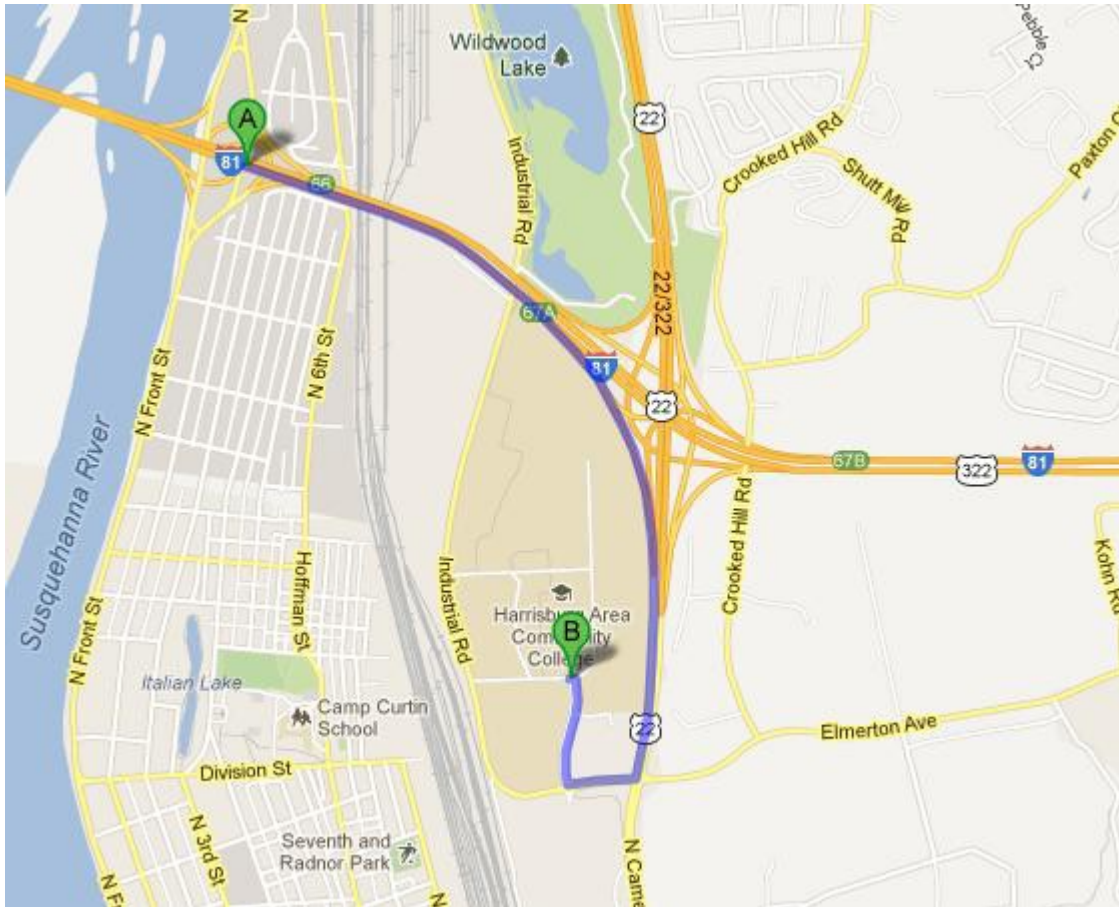
Web Site: www.w3uu.org

For further information or questions contact:

Tim Lehman

717-982-8550

kb3oza@arrl.net



Driving directions to Harrisburg Area Community College



I-81 N

- 1. Head **east** on **I-81 N** toward **Exit 67A** 0.7 mi
- 2. Take exit **67A** to merge onto **US-22 E** toward **PA-230/Harrisburg/Cameron St** 1.1 mi
- 3. Turn **right** onto **Wildwood Park Dr** 0.2 mi
- 4. Turn **right** onto **Hacc Dr** 0.2 mi
- 5. Turn **left** onto **Alumni Dr** 56 ft



Harrisburg Area Community College

1 Hacc Drive
Harrisburg, PA 17110

Parking lot coordinates Willow lot:
N40.29623
W76.88805

Upon entering HACC campus, turn Left and follow signs.

Vendors: After turning left, vendors will turn Right onto a service road and follow signs to Cooper Student building.

Buyers: After turning Left, proceed over small bridge, and turn Right into Willow parking area. Go until you see a foot bridge on the right, and find a parking spot. Get out of car and walk across the foot bridge to Cooper Building.