



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.....

This is a bit later than usual, but I have a good excuse (this time). As you'll read later, Pete and I made a trip to Connecticut, which included a stop at ARRL Headquarters. We had a blast touring and operating there, but you'll have to read the full account later in the newsletter.

The biennial TMI drill is fast approaching. As a member of the emergency management community, I can't begin to tell you how much we appreciate the support that we get from the amateur radio operators who augment our EOC staffs. If there is any way that you can spare a couple of hours on the night of April 14h, I strongly recommend that you contact Marty (KB3BAA) and offer to help out.

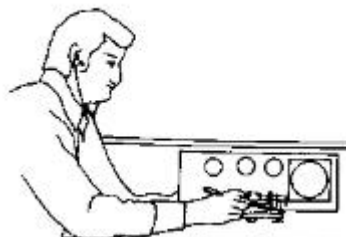
Santa left an ARRL gift certificate in my stocking. I decided that one of my Christmas presents would be a book from ARRL on Arduino* projects for ham radio. There are quite a few interesting projects in the book that are kind of generic in nature and pretty straightforward to put together. I've been having a lot of fun learning about the Arduino*, how it operates, how to program it and how to interface various devices to develop a meaningful project. This could lead to another newsletter article and/or a technical presentation at a future meeting.

That's it for now. I hope to see you at the meeting.

73,

Tim KB3OZA

***Arduino** is an [open-source](#) computer hardware and software company, project and user community that designs and manufactures kits for building digital devices and interactive objects that can sense and control the physical world. Arduino boards may be purchased preassembled, or as [do-it-yourself](#) kits; at the same time, the hardware design information is available for those who would like to assemble an Arduino from scratch.



March Meeting Minutes

The March 11, 2015 meeting of the Harrisburg Radio Amateurs Club was called to order at 1902 HRS by the president, Tim (KB3OZA).

Secretary Report - The minutes of the February meeting were published in the newsletter. Chuck (N3WL) made a motion to accept the minutes, and was seconded by Rick (K2RBT). Motion PASSED

Treasurers Report - Joe (KQ3F) presented the treasurer's report. Chuck (N3WL) made a motion to accept as read, and was seconded by Rick (K2RBT), to accept the report. Motion PASSED

Trustee – No Report

Repeater – No Report

VE Committee – The next test session will be April 18th

Membership Committee – Tim (KB3OZA) reported 1 new member joined increasing membership to 97.

Newsletter – No Report

Web page – The VE page has been changed to require pre-registration for test sessions.

EMCOMM –The TMI drill will be April 14th

DXCC –Not Present

Entertainment – Not present

Elmer Time –Terry (WB3BKN) will do the Elmer Time next month

Old Business – There was discussion of purchasing a trailer (10-12ft.) for mobile operations. There was a motion made by Rick (K2RBT) for the Equipment trustee to research trailers 12ft under \$3,000, final purchase decision to be made by the executive board, seconded by Terry (WB3BKN). Motion PASSED.

New Business – The invoice for the Equipment Insurance came. There was a motion to reimburse Richard (KB3YRC) for the plaque given to Dick (K3AM) and seconded by Neil (N3JQM) Motion Passed. There was a motion Made by Richard (KB3YRC) to make a donation of \$25 to the photographer who covered the presentation of Dick's (K3AM) plaque, seconded by Rick (K2RBT) Motion PASSED

Good of the Club – Terry (WB3BKN) reported the memorial for Shelby (K3EMT SK) will be April 1st at Fisherville Fire Hall at 6:30.

Tim (KB3OZA) reported there will be a Bike ride at Weiser State Forest. For information, email Paul Coleman, WQ3P.

Adjournment – There being no further business to conduct, Gary (KV3Q) made a motion, seconded by Rick (K2RBT), to adjourn. Motion PASSED

Meeting adjourned at 1951 HRS.



W3UU
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Weekly HRAC Net

The weekly information net is held every Wednesday at 8:00 PM on the 146.760 repeater, except for the second Wednesday of the month, which is club meeting night.

The next VE Testing session will be on Saturday April 18, 2015 in the HACC Shumaker building at Gate 5 on Industrial road, Harrisburg, PA. Pre-Registration is required. Please arrive by 8:30am

Contact: Steven Gobat [717-938-6943](tel:717-938-6943) Email: KA3PDQ@arrl.net.

I will be making a mailing to the ARRL Outgoing QSL Bureau at the end of April. Please get your cards, sorted in DXCC prefix order, with proof of ARRL membership (QST mailing label) to me at the April Ham Lunch or you may also give them to Chuck Greiner, N3WL, who can get them to me...

This service is open to all HRAC members who have 1 or 1,000 cards to go out through the Bureau system.

Any questions, call me at 774-1278 or e-mail k3swz@arrl.net..

73

de Glenn Kurzenknabe, K3SWZ

Hello Marty,

I wanted to let you know that I will be leaving Hershey Entertainment in two weeks. My last day will be March 26. It's been a pleasure working with you over the years. I deeply appreciate the help and support you and the Ham Radio operators have offered me and our events. The Half Marathon was a huge undertaking from the beginning and I know it wouldn't have grown to be such a huge success without your assistance.

Sarah Mealey

I welcome subjects for the Elmer Time sessions from anyone, including our seasoned radio amateurs. Subjects should be something to expand on questions in the license exam that may need a clearer understanding. Either email the ideas to me at Terry@DJTerry.com, or text at 717-979-9515.

Tnx 73

Terry WB3BKN

Please send any articles for the newsletter to hrac.newsletter@Yahoo.com



Emergency Communications Drill

By Martin Gutekunst (KB3BAA)

An emergency communications (EMCOMM) exercise was conducted between 9:00 AM and 11:30 AM on Saturday, March 21, 2015. The goal was to test communications between the South Central Task Force (SCTF), County Emergency Operations Centers (EOCs), and Pennsylvania Emergency Management (PEMA) HQ. The counties that participated were Adams, Cumberland, Dauphin, Lebanon, Lancaster, plus PEMA HQ.

We used the two primary repeaters from each county, plus the PEMA primary repeater as well as simplex reception between counties on both UHF and VHF. We attempted to test the Franklin County repeaters, but the Franklin county RACES room has not been set up, so Franklin county operations could not be tested. Dauphin county could only test on the PEMA primary & Dauphin county primary due to difficulty getting access to the RACES room to program the radio. The test on the Perry/Juniata county repeater was unsuccessful due to issues with bringing that repeater up.

In general, communications are good between counties on the primary repeaters, except for the Franklin county repeater. Adams, Cumberland, and York counties can also work the Franklin repeater. That's not unexpected due to the mountain between Adams & Franklin counties. I don't know if Franklin county can reach PEMA-1P, but Adams or Cumberland county could relay for them if needed.

We also discovered that almost all of us were guilty of not keeping the radios updated for PL tone changes. In York county, for instance, we had to change the tone setting for three repeaters during the exercise. I've made it a point to remind the Auxiliary Communication System Officers (ACSOs) in my Amateur Radio Working Group (ARWG) email to follow-up changes to the ICS-217 with programming changes to the radios.

In York County, three operators participated. Jack Dellinger (KC3JD) and Tom Graybill (KB3ETG) operated, while I did the logging and report. Tom is also our liaison to York county Office of Emergency Management (OEM), so that makes access to the RACES room easy for our team.

In Cumberland county, there were 5 operators. Dick Goodman (WA3USG), who is registered for both York and Cumberland counties (as I am), and Bob Single (N3ACP) who has registered for ARES in Cumberland county were the primary operators. There were also three 3 newly licensed technicians interested in EMCOMM : John Melville, KC3EFN, Vince Garrahan, KC3EFM, and Mike Hempt, KC3EMH. Those new operators are part of the small group that I will mentor in Cumberland.



WWW.ARRL.ORG

A Trip to the “Holy Land”

by Tim, KB3OZA



As some of you might be aware, my youngest, Pete (KB3WIH), is in his junior year of high school. He is starting to look around at possibilities for college, and the Coast Guard Academy is high on his list of possibilities. On Sunday, March 29, he and I set out for a campus visit at the academy. After looking at the map, we realized that Newington is only about 60 miles from New London, so we just HAD to arrange our schedule to include a stop at ARRL Headquarters.

We arrived at HQ at about 10:00 AM and were greeted by Skip (W1FTE), our tour guide, and Pete, who was manning the phone lines. After introductions, Skip asked what they could do for us, and we told him that we would like to have a tour of headquarters and hopefully operate the W1AW station. His response of “No problem! Let’s get you signed in and we’ll begin.” was most pleasant. We gave Pete our names and call signs and he produced name tags for us while we signed in on the visitors’ log and then we were off.

First stop; the RF shielded product testing lab. Most of the time, the shielding isn’t really necessary, but when W1AW is on the air, it can create enough QRM that it would impact sensitive testing of equipment being tested.



The device currently being tested is behind the papers that Skip is holding. He asked that we not divulge what it is, but if you read QST regularly, you should be able to read all about it in a couple of months. Right now all I can say is that it is a new transceiver model.

From there we moved to the main area of the testing labs which included a display case holding various items built by the lab staffers, such as the original Tuna Tin transmitter.



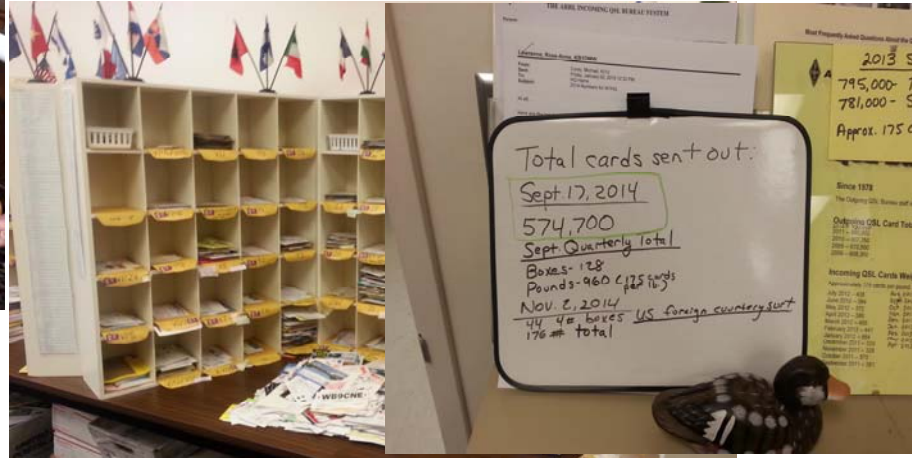
As we moved on from the lab, we passed a replica of the Oscar 1 amateur radio satellite. Skip threw a switch and the display began emitting a CW side tone simulation of Oscar's beacon message – H I. Satellites, like most other things, have become smaller as technology has become more and more miniaturized. Later on we passed a CubeSat display, which was approximately three inches on a side. At least two dozen of them would easily fit inside of the Oscar housing.

Our next stop was the museum, housing every type of gear that you could imagine, from spark gap transmitters all the way up to Heathkit and Drake equipment from the 1960's and '70's. Displays included a classic AM station and a novice station





Our last stop on the tour was at the outgoing QSL bureau. This is where all of those cards that you give to Glenn to mail wind up. Once here, they are sorted by country and mailed out. The one action that would destroy days of hard work, the activity that is absolutely not allowed in this room is... SNEEZING. As you can see below, one good sneeze could scatter cards, literally, all over the world.



At 175 cards per pound, the bureau typically sends out two and a half tons of cards each year. I commented to the lady working in the office that, given the amount of cards that she processes, getting her Christmas cards mailed out should be a snap. She admitted that she is usually late getting that done, mainly because the Christmas mailing season is also the bureau's busy season.

Finally, the headquarters tour was over and it was time for the "fun stuff"; operating the W1AW station. Skip walked us across the parking lot to the station building. There he introduced us to Joe (NJ1Q), the station manager.

We got a quick tour of the station, including Hiram Percy Maxim's operating desk and his spark-gap transmitter.



After a brief discussion on the merits of tuned filters and VFO's we were shown to an operating studio outfitted with two nearly identical operating positions.

Each consisted of an Icom IC-7700, ALS amplifier and logging computer, running N1MM software. Each position also contained what we at HRAC have come to know as a Shuey box. After a quizzical look at my mention of Shuey boxes, I explained that we used the same sort of filters for Field Day and that ours were built by one of our members, Joe Shuey (HE3H).



The main mission of the W1AW station nowadays is transmission of ARRL bulletins and CW practice runs. The majority of the equipment in the station is dedicated to that purpose. But there are rare occasions where the station will be staffed on a weekend for a special operating event.



I wish that I could say that once we got set up and began operating, a pile-up to end all pile-ups began to take shape. Unfortunately, that was not the case this day. Understandable, considering that it was a weekday, and the middle of the day as well. I did manage to work several stations in Europe and one in Puerto Rico. Pete fared about the same as I did; four or five contacts in the couple hours that we were on the air.

All in all, it was a very enjoyable experience for both of us. But, as with all good things, it was soon time for us to go QRT and get ready for the trip back to our hotel so that we could rest up for the drive home the following day. Joe provided us with certificates attesting to the fact that we did indeed operate W1AW and we shook hands all around and were on our way.

If you ever get the chance to travel to (or through) Connecticut, make sure that you arrange your itinerary to include a stop at Newington. The staff at ARRL HQ is extremely friendly and the experience of operating their station is a memorable one, to say the least.

Long Delayed Echoes

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

Compiled by Mark Robinson WB3JIS

Spring is here and time to think about getting outside and working on antennas. Have all the needed parts? Here's a little story about antenna parts from the information-rich August 1995 issue of the club newsletter.

DESPERATELY SEEKING BEAM BUYER

Mark, WB3JIS, received a call from Don Wagner, W2QFC in East Aurora, NY. A few weeks ago at the Batavia NY hamfest he sold a Butterfly HF-5B beam to an OM from Harrisburg. Don recently found a box of parts that go with the antenna and is attempting to locate the buyer so that he can pass them along. If anyone knows who purchased this antenna, please have them contact Don at his callbook address. His telephone number is (716) 652-████. Thanks for your help, and W2QFC passes along his thanks. The fact that someone went to such trouble to insure a hamfest buyer is happy is a fine example of our hobby at its best.

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Why Should I Check In To the Local Net?

Weekly nets are a good way to practice operating during a net and - for NCS - how to handle a net. One particular aspect, voice recognition, will come with practice. There are lots of other good reasons for checking into regular nets - here is a list I came up with:

- Check the operation of your equipment.
 - Do you have the offset & tone set properly?
 - Do you have WIRES or "roger beep" inadvertently turned on?
 - Are you operating in narrow rather than wide FM mode?
 - If you have more than one radio, alternate radios each week.
- Check the operation of your power sources.
 - If you have spare batteries, alternate each week.
 - Some batteries seem fine on receive, but will not hold up when subjected to the higher power required for transmit.
 - If you operate while charging your battery, it may sound fine during receive, but will be all hum on transmit due to the increased ripple from the charger.
- Check your operation on low power.
 - During an emergency, you want to conserve your batteries by operating with as low power as practical.
- If operating HT:
 - Check your operation from different locations - like the spot you would go during a tornado warning.
 - Check operation of accessories such as speaker mic or earphone.
- Check the operation of your antennas
 - Alternate each week if you have multiple antennas.
- If you have the capability of doing cross band repeat, check its operation on a regular basis.
- Checking into the net allows us to evaluate the repeater performance.
 - A receiver could develop a spur that blocks out weak stations that previously were able to get into the repeater.
 - It is good to know how well more distant stations receive the repeater.

It goes without saying we would benefit from knowing these kinds of things ahead of time, rather than trying to deal with them on the fly during an emergency situation.



An Engineer vs. A Broken Refrigerator

By Terry Snyder (WB3BKN)

My mother has a refrigerator that is, well, old. It was made in 1953, just like me, not that I am actually "old", but for a 'fridge, that is OLD. The Philco was bought to keep my milk cold when I was an infant. Other than the occasional light bulb replacement, and that little switch that turns off the light when the door is closed, it has been extremely reliable. I only actually assume that the light shuts off when the door closes because I have never actually been inside when the door closes, even though my brother tried to shut me inside several times. I was really glad mom heard the commotion and stopped that!!

Well, back to the point. Mom and I stopped at B-G's local SureFine market to pick up some seedless grapes that were on sale. By the way, B-G's has the best Shoo Fly Pie too... Anyway, we got back and put our new purchases into the old Philco and went about our day. Later that evening I noticed water dripping from the freezer section.

Naturally, the first thing any good engineer would do is to check to see if the unit was plugged in, it was. Further checking of the power cord revealed that some of the insulation was skinned off of the power cord. I made a note of that and kept on looking. I removed the cover at the bottom of the 'fridge which allowed access to the compressor unit. I had to remove a protective cover attached to the compressor unit to expose the wiring and pressure switches. What I found there was over 60 years of drying rubber coated wires. The only logical thing to do is to replace all of the wires with upgraded 21st century product and a new grounded power cord. I got all of the food into the Montgomery Ward Deluxe 23 Chest Freezer unit in the adjoining room, and head for the local hardware.

Finally back home and had to listen to the over 60 years of stories about the old Philco while I worked on it, and how they had decided on that exact refrigerator, and why it was bought, and the stories about getting shoved into the fridge... Finally got it all done, and plugged it in... IT STILL WON'T WORK...!!!

Let's take a look inside the old Philco. I started removing the remaining food items in the refrigerator section, and when I moved the seedless grapes, there was a square green box, with something etched on it. There was a smaller square sliding box on the larger one with a little window beside it. I got my flashlight, and glasses and looked closer. The small window has words in it but it was half way between something so I move what actually was a switch. The window now had the word "ON" in it. Now the humming of the compressor can be heard from under the unit. All revisions have been documented, photographed, and given a revision number.

And kids, that is why you don't ask an engineer to repair an appliance. I guess engineers really do over think the simplest things. At least the wiring is now up to code.



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!



From the Editor's Desk

I am really happy with the articles that are coming in for the newsletter. Please send them to the correct email address. The correct address has been listed in this newsletter for the past several months, and only one person uses it. It is extremely important to use the correct address because my business address is a very busy place and the articles may get lost there. If you are submitting articles, please follow the guidelines listed below.

I would also like to express my gratitude to **Jim Hoffman (WF3J)** for his help as my proof reader. It is great to have another set of eyes to find any mistakes before publication.

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. This includes including the meanings of acronyms.

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 HRAC.newsletter@Yahoo.com.

Tnx 73

Terry WB3BKN



Memorial for Shelby K3EMT

In October we lost a good friend in Shelby. On April 1st, the day that would have been her birthday, some of her friends gathered to celebrate her life. Nearly \$200 was donated by those who attended that will go to a charity that she would have wanted to donate it to. Guests spoke of her life and supported each other in a way that was not available before, because her family only wanted a private memorial. Shelby's daughter Audrey was very appreciative of the gathering. A memory table was prepared by guests and balloons provided by Richard Kb3YRC were released at dusk with notes written by those who attended.

Thank you all for your help.

73 Terry WB3BKN



Audry Steppy, John Bowling, Henry Cotterill (KB3LOT)



HRAC MEMBERSHIP APPLICATION

MAIL TO:
Tim Lehman (KB3OZA)
PO Box 453
Hummelstown, PA 17036
717-982-8550

Make checks payable to HRAC—Membership is \$15.00 (\$7.50 if over 65) per year.
Family Membership is \$25 (Hams must reside in the same household)
Dues end December 31st.

NAME _____ CALL _____

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CITY _____ STATE _____ ZIP _____

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ARRL Member: Y _____ N _____

* YEAR FIRST LICENSED _____

SIGNATURE _____

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

