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# Harrisburg Radio Amateur's Club Newsletter

HRAC meets the second  
Wednesday of each  
month  
at 7:00 pm at HACC,  
Public Safety Building,  
Gate 5 on Industrial  
Road in Harrisburg

**\*\*Please note the NEW  
location!**

## **HRAC OFFICERS**

### **PRESIDENT**

Terry Snyder  
WB3BKN  
(717) 896-0256  
terry@djterry.com

### **VICE PRESIDENT**

Nick Rylatt  
AA3T  
(717) 957-4688  
AA3T@arrl.net

### **SECRETARY**

Tim Lehman  
KB3OZA  
kb3oza@yahoo.com

### **TREASURER**

Joe Stepansky  
KQ3F  
(717) 657-9792  
KQ3F@comcast.net

### **TRUSTEE**

Steve Gobat  
KA3PDQ  
ka3pdq@juno.net

### **WEBMASTER**

Matt Kiner  
N3SOZ  
n3soz@arrl.net

### **NEWSLETTER EDITOR**

Shelby Minier  
K3EMT  
shelbyminier@gmail.com

## **The President's Letter.....**

The meeting this month will be our first meeting at our new location at the HACC campus. The location is on Industrial Drive at Gate 5. There are directions later in this newsletter.

As many of you know, changing the location for the hamfest can create problems. In case you did not get the news, the new location is Gate 5 of Harrisburg Area Community College on Industrial Road, Harrisburg. The main problem will be letting people know how to get to the new location. I have been sending flyers to upcoming hamfests in the Atlantic region, and now I am now asking all of you who will be attending a hamfest, to take our flyers along and hand them out to attendees of the hamfest.

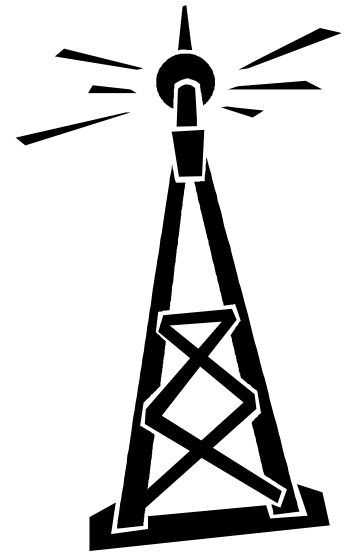
Personally handing a flyer to an attendee will mean more than if they just grab one at the registration table. It offers the opportunity to further inform the person. Also please forward our hamfest flyer to everyone on your email list. I cannot stress how important it is to promote our hamfest.

This year we are also calling it an electronics expo. This was done to promote even more participation by computer and electronics vendors. With that in mind, please take a pile of flyers to your local computer shops, radio repair shops, gaming supply shops, car audio shops, and more. When you need flyers, I will get them to you.

A word about our involvement with HACC: This location offers safety as well as a location for teaching amateur radio in a classroom environment, with the potential for much more. I am looking forward to a long affiliation with the college.

On a personal note I would like to invite club members and others to participate in a special event station in Halifax during the weekend of July 21 and 22. We are trying to get every town or city with the name Halifax to participate in some way. I have commitments from several, including Halifax England. The third weekend of July was chosen because there are no contests scheduled on that weekend. We have it set for two days because of the fact that there are Halifax towns and cities in foreign countries that will be participating. We will be set up in a prominent location in Halifax Pennsylvania and have displays by local fire departments and a local sprint car driver and car. If you would like to participate and help please let me know. The name given to this event is **Halifax On The Air.**

Terry Snyder, President  
WB3BKN



## February Meeting Minutes

There are no February meeting minutes. The February meeting was the "Ham Feast", held at Fire Mountain on the Carlisle Pike in Mechanicsburg.

## Ham of the Year Award

Congratulations to Tim Lehman for being chosen as the Ham of the Year for 2011!

Tim became licensed in 2007, just after the FCC dropped the CW requirements altogether. Tim is the Emergency Management Coordinator for Steelton Borough. It was through that job that he met Terry (WB3BKN). Terry had contacted Tim to arrange a time for the RACES radio in the Steelton EOC to be checked to make sure that it was properly programmed for an upcoming TMI drill.

Tim worked in electronics and computers when he was in the Air Force. That sparked an interest in home brewing circuits and electronic gadgets.

Talking with Terry that day got the home brewing urge going again and Tim saw ham radio as a good avenue to channel that energy through. Tim has built several antennas and a few gadgets for the shack. He has also done a few minor radio mods and repairs.

Tim's most memorable experience as a ham, so far, has been being selected as Ham of the Year. He is proud that his fellow hams feel that he is making such a significant contribution to both the club and the hobby.

Next to that would be the look on the face of a Boy Scout when he makes a radio contact for the first time. Tim enjoys sharing ham radio with other people, especially kids. They see the "magic" in it. That's why he has been involved in JOTA and other demonstration events for the Boy Scouts.



Tim Lehman, KB3OZA (left) receives his Ham of the Year award

## Study on Emergency Communications by Amateur Radio and Impediments to Amateur Radio Communications

A bill that passed both the House and the Senate February 17, 2012 includes a provision for a study of the uses and capabilities of Amateur Radio Service communications in emergencies and disaster relief.

If passed into law, Section 6414 (see below for text) of the Middle Class Tax Relief and Job Creation Act of 2012 mandates the completion of the study, with a report of the findings to the House Committee on Energy and Commerce and the Senate Committee on Commerce, Science, and Transportation. This study would "use the expertise of stakeholder entities and organizations" to recommend how to best use radio amateurs in emergency communications and disaster relief efforts, and how to best utilize the Amateur Radio Service in coordination with the federal government in these efforts. In addition, the study would also discuss the effects of unreasonable or unnecessary private land use restrictions on residential antenna installations and recommend ways to remove such impediments.

The bill passed the House with a 293-132 victory. In the Senate, it passed by a 60-36 vote. According to the Los Angeles Times, President Obama is expected to sign the bill "quickly."

Click on the link below for the complete text of the Middle Class Tax Relief and Job Creation Act of 2012. Section 6414 begins on page 212.

### Section 6414: Study on Emergency Communications by Amateur Radio and Impediments to Amateur Radio Communications

- (a) In General: Not later than 180 days after the date of the enactment of this Act, the Commission [FCC], in consultation with the Office of Emergency Communications in the Department of Homeland Security, shall:
  - (1) complete a study on the uses and capabilities of Amateur Radio Service communications in emergencies and disaster relief; and
  - (2) submit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report on the findings of such study.
- (b) Contents: The study required by subsection (a) shall include:
  - (1)(A) a review of the importance of emergency Amateur Radio Service communications relating to disasters, severe weather, and other threats to lives and property in the United States; and
  - (B) recommendations for:
    - (i) enhancements in the voluntary deployment of Amateur Radio operators in disaster and emergency communications and disaster relief efforts; and
    - (ii) improved integration of Amateur Radio operators in the planning and furtherance of initiatives of the Federal Government; and
  - (2)(A) an identification of impediments to enhanced Amateur Radio Service communications, such as the effects of unreasonable or unnecessary private land use restrictions on residential antenna installations; and
  - (B) recommendations regarding the removal of such impediments.
- (c) Expertise: In conducting the study required by subsection (a), the Commission shall use the expertise of stakeholder entities and organizations, including the Amateur Radio, emergency response, and disaster communications communities.

*From ARRL, Submitted by Marty Gutekunst, KB3BAA*



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is  
ARRL Affiliated





## Active Shooter Training to be Held

**Date:** Thursday, March 22, 2012

**Time:** 7:00 PM

**Location:** Mt. Airy Fire Hall, 880 Durlach Road, Stevens, PA 17578

### Who should attend

This class is designed to improve the knowledge of search & rescue and other emergency response

personnel that may find themselves in an active shooter situation.

The training will provide the participants an opportunity to:

- Recognize potential indicators and warnings of attackers
- Receive an overview on proper methods of approaching suspicious persons
- Focus on body language and behavior as precursors to violence
- Interface with law enforcement in an active shooter incident
- Learn the immediate actions to take in order to minimize loss of life

### Registration

*Participation is limited due to the seating capability of the venue location and registration will be provided on a first come, first serve basis. To register for this event, please email your name, telephone # and email address information to:*

- **Name:** Ron Small, [rtsmall140@verizon.net](mailto:rtsmall140@verizon.net)
- **Telephone #** 717-481-8589

**Registration Cutoff:** Monday, March 19, 2012

*This workshop is free of charge !*



Photo by Terry Snyder, WB3BKN

## Location Info for New Meeting Location

HACC, Public Safety Building

Parking Lot Number 5

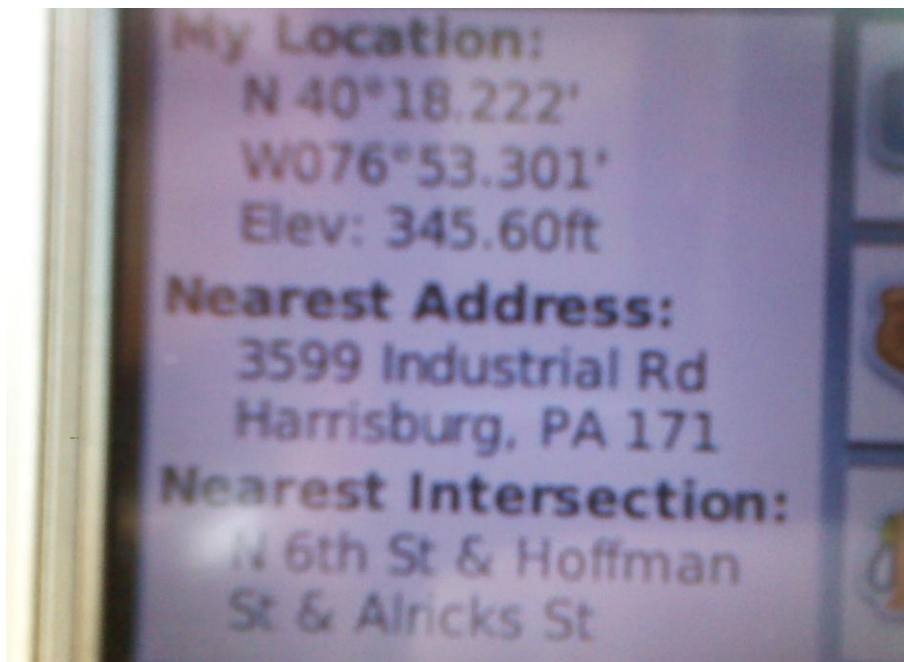
GPS Coordinates:

N 40° 18.222

W 076° 53.301

Elev 345.60 ft

3599 Industrial Road, Harrisburg, PA



### 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.



### HRAC Repeater Information

146.76, Tone 100 hz (PEMA 1)

147.075, Tone 123 hz (Dauphin County 1)

224.18, Tone 123 hz (WB3BKN, Terry)

#### And the newest CPRA repeaters:

444.550 MHZ, + 5.00 MHZ, Tone 123 hz (Newport)

446.425 mhz, Tone 123 hz (Reeser's Summit)



Fred Gross WA3PLR & Mike Greaney K3SZR  
at the Newport tower site

*Photo submitted by Terry Snyder, WB3BKN*

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## NTS Traffic Handling Prowords

| Pro-Word     | Meaning or Example  |
|--------------|---|
| BREAK        | Separates address from text and text from signature       |
| CORRECTION   | "I am going to correct an error"                          |
| END          | End of message  |
| MORE         | Additional messages to follow                             |
| NO MORE      | No additional messages                                    |
| FIGURES      | Used before a word group consisting of all numerals       |
| INITIAL      | Used to indicate a single letter will follow              |
| I SAY AGAIN  | Used to indicate a repeat of a word or phrase will follow |
| I SPELL      | "I am going to spell a word phonetically"                 |
| LETTER GROUP | Several letters together in a group will follow           |
| MIXED GROUP  | Letters and numbers combined in a group will follow       |
| X-RAY        | Used to indicate end of sentence, as with a "period"      |
| BREAK        | Break in communication                                    |
| CORRECT      | Correct, yes  |
| CONFIRM      | Confirm (please check me on this)                         |
| THIS IS      | Used preceding identification of your station             |
| HX           | Handling instructions, single letter to follow            |
| GO AHEAD     | Invitation for specific station to transmit               |
| ROGER        | Message understood  |
| WORD AFTER   | "Say again word after ..."                                |
| WORD BEFORE  | "Say again word before ..."                               |

*Submitted by Marty Gutekunst, KB3BAA*

## Running HF Radio Remotely

What it takes to remotely operate his HF station over the internet or the Central PA IP Network. This will help those hams that do not have an HF station and want to experience the HF world.

A computer and a microphone and free software are all that you need. Bob has people from everywhere using his system.

The purpose of this group is to pass information among the users of the W0BR internet remote radio system.

Instructions for obtaining remote transmit access:

1. Select "Join This Group!" - please indicate:
  - A: your name
  - B: your call
  - C: your class of license
  - D: for non-US licenses - your country of citizenship(Applications with insufficient information will be rejected.)  
I reserve the right to require a copy of your amateur license.
2. Once you are accepted in the group, please read the operating instructions in the Files section.
3. Send me an email indicating you have read and understood the operating instructions and will abide by the identification requirements.
4. I will respond with your log-in credentials.

Bob Raker, W0BR

*(Article from the "Central PA Repeater Association" February 2012 Newsletter)*

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## New 60 Meter Privileges Now in Effect

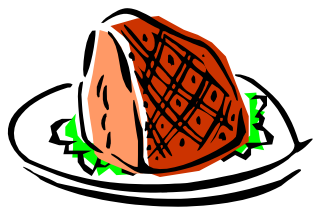
As of March 5, US amateurs have new privileges on the 60 meter band. In addition to an increase in effective radiated power from 50 to 100 W, hams can now transmit CW and PSK31 on the following channel-center frequencies:

- Channel 1: 5332.0 kHz
- Channel 2: 5348.0 kHz
- Channel 3: 5358.5 kHz
- Channel 4: 5373.0 kHz
- Channel 5: 5405.0 kHz

Amateurs can also transmit USB voice and PACTOR III on the following suppressed carrier frequencies (the frequencies typically shown on transceiver displays):

- Channel 1: 5330.5 kHz
- Channel 2: 5346.5 kHz
- Channel 3: 5357.0 kHz
- Channel 4: 5371.5 kHz
- Channel 5: 5403.5 kHz

For more information, please see [60 Meter Operations -- New Privileges and Recommended Practices](#), published by the ARRL HF Band Planning Committee. A [revised ARRL band chart](#) is also available. Watch for the article "New Privileges on 60 Meters" by ARRL Regulatory Information Manager Dan Henderson, N1ND, in the April 2012 issue of *QST*.



## 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 Amateur's Code

### 1. The Amateur in Gentlemanly

He never knowingly uses the air for his own amusement in such a way to lessen the pleasure of others. He abides by the pledges given by the ARRL on his behalf to the public and the Government.

### 2. The Amateur is Loyal

He owes his amateur radio to the ARRL, and he offers it his unswerving loyalty.

### 3. The Amateur is Progressive

He keeps his station abreast of science. It is built well and efficiently. Its operating practice is clean and regular.

### 4. The Amateur is Friendly

Slow and patient sending when requested, friendly advice and counsel to the beginner, kindly assistance and cooperation for the broadcast listener; these are marks of the amateur spirit.

### 5. The Amateur is Balanced

Radio is his hobby. He never allows it to interfere with any of the duties he owes to his home, his job, his school, or his community.

### 6. The Amateur is Patriotic

His knowledge and his station are always ready for the service of his country and his community.

*Submitted by Glenn Kurzenknabe, K3SWZ  
(from an old brochure he found)*



The next **ham radio testing session** will be held on Saturday April 18<sup>th</sup>.

The testing location has yet to be determined.

Other tentative testing dates for 2012, June 16, August 18, October 20, and December 15, 2012

## Amateur Radio EmComm Participates in Emergency Management Institute exercise, Use of NBEMS

On February 14 & 15, 2012, Amateur Radio operators from Adams and York County, Pa. were invited to participate in an emergency management exercise held at the FEMA Emergency Management Institute (EMI) at the FEMA facility in Emmitsburg, MD. Don K3DCS ACS Officer Adams County was the person contacted.

Citrus County, Florida, Emergency Management team was involved in a week long training program at EMI. The Citrus County team included three Amateur Radio operators, none of which had much experience in EmComm. The EMI staff invited several experienced EmComm Hams from Adams and York Counties to provide voice and digital instruction and training to the Hams from Citrus County. We all took our Go-kits (voice & digital). See 2<sup>nd</sup> page for pictures of setups.

We spent the better part of two days at EMI explaining and demonstrating our use of voice and digital communications to the Hams from Citrus County. On the first afternoon we participated in a 'warm up' exercise that the entire Citrus Co. EMA Team was given to practice some of the things they were being taught. Adams/York team demonstrated both voice and digital (NBEMS/FLDIGI MT-63 2K) by sending messages provided in the exercise package. We had brought two voice stations and two digital stations with us. The exercise was held in-doors, and the two rooms used were only 50 feet apart, so we only needed mag. mount antennas and low power. We operated voice on 2 meters and digital on 440.

The second day of the exercise was a full simulation of a category II hurricane. Hurricane 'Whiteout' was to make land fall in Citrus County (This is an exercise message). The EMI staff hit Citrus EMA with an 'all communications down, but Amateur Radio. All message traffic was sent and received via Amateur Radio for over one hour. We were quite busy!!!! FLDIGI/FLMSG again proved to be faultless and quite capable of handling the traffic. We mostly used the ICS-213 form in FLMSG. We did have a couple 'Shelter Lists' and 'Medications Lists' that were EXCEL '.csv' files to send/received. We also used FLMSG ICS-205 to send our frequency usage plan. All messages were sent and received and printed. We logged all traffic via ICS-309 forms.

*Note: We have included in our procedures, that on sent and received messages we record the last six characters (numbers) of the file name given to the message. We have the number written on the printed message and on the ICS-309 log with each message description. When we have a 'response' to a message we are able to look-up the original message on the 309 log and then find the original message, using that sequence number, in the 'RECV' folder and import it into FLMSG. This procedure works very well.*

*Note: We also used a 2 meter simplex frequency (HT) as a 'Logistical' Net. We would call the Receiving Station stating that we had digital traffic for them. Upon their answering that they were ready, we would announce "(callsign) sending digital in 10 seconds". The 10 seconds would give us time to key 'autosend' and record the 'sequence number' on the log. After the message was sent, we would announce "End of traffic (callsign)". Receiving Station would announce "100 percent copy" or "not received, send again". Again this procedure works very well. And YES we included "This is an exercise message" at the beginning and end of text on ALL messages.*



Continued on Next Page

## Use of NBEMS, continued from previous page

Between the Simulation Cell (SIMCELL) room and the Citrus EOC room I believe we sent and received over thirty messages. Both the EMI staff and Citrus County staff were impressed by our message handling abilities. During the exercise the staff's would also accept any thoughts we had about how certain situations should be handled. I think my having spent three weeks in Mississippi after Katrina gave me some acceptance by the staff that might not have been there otherwise. We have made good contacts with the Hams from Citrus County and have all ready heard from them (email) asking for further info on EmComm in general and NBEMS in particular. I sent Gerry W4GKB the ARES E-Letter and link to paNBEMS group, plus I sent Jan KK4DYB info on links to download FLDIGI etc. and YouTube links. Hopefully we can infect Western Florida with FLDIGI fever, HI HI.

Don K3DCS, ACS Officer Adams County, has all ready received a note from the EMI staff, thanking us for our participation and indicating that Amateur Radio will be invited to future training exercises.

- Brian K3BMK Adams County ACS
- Alan KB3TOZ Adams County ACS
- Jack KC3JD SCTF/ARWG, York County ACS/YARS

*Submitted by Marty Gutekunst, KB3BAA*



On left Digital, On right voice (W4GKB)



On left digital (KC3JD) On right voice (K3DCS & KK4DYB)



Voice (KK4DYB from Citrus Co) and K3BMK voice Go-kit



K3BMK & Alan KB3TOZ working digital

## Active Sunspots Produce Solar Flares

An X-1.1 class solar flare erupted from the Sun on Sunday, March 4 at 11:13 PM EST (0413 UTC March 5), sending an explosion of plasma and charged particles - a coronal mass ejection (CME) -- hurtling through space. Forecasters at NOAA's Space Weather Prediction Center ([SWPC](#)) are saying that the CME should miss Earth, but will hit Mercury and Venus.

Even if this CME misses, high-latitude sky watchers should still be alert for auroras in the nights ahead. An M3-class eruption from the same sunspot just a day before produced another, wider CME that might intersect Earth. The cloud is expected to deliver a glancing blow to Earth's magnetic field on March 6 around 0430 UTC. Sunday night's solar flare is only the [second X-class eruption so far this year](#). X-class flares are the most powerful type of solar storm; M-class eruptions are considered midrange and C-class flares are the weakest.

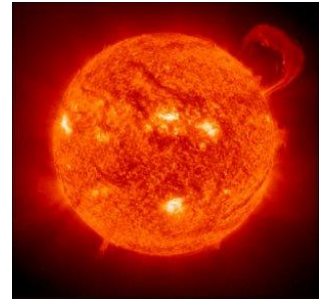
According to Spaceweather.com, SWPC forecasters are estimating a 75 percent chance of M-class solar flares and a 30 percent chance of an X-flare from big sunspot 1429, which emerged on the Sun on March 2 and is estimated to be at least four to five times larger than Earth. The active region is slowly turning to face Earth, so if any such eruptions do occur, they are increasingly likely to be geoeffective. Forecasters say there is a 30-40 percent chance of polar geomagnetic storms through the rest of the week. The 1429 sunspot region continues to be quite active since it emerged on March 2, and scientists are predicting it will spew more flares as the week goes on.

When a CME hits the Earth's atmosphere -- approximately 72 hours after exploding on the Sun -- the low bands will be depressed and signals will be weaker the lower the frequency. The absorption rate will be most severe on 160 meters, less on 80 and somewhat better on 40 meters. The maximum usable frequency ([MUF](#)) -- the highest frequency by which a radio wave can propagate between given terminals by ionospheric propagation alone, independent of power - will be lower and auroral propagation on the VHF bands is quite possible.

When aurora occur, the electrons hit the ionosphere at the North and South geomagnetic poles, creating ionization. Waves that would normally travel off into space are bouncing off the aurora and being redirected back toward Earth. This can create opportunities for long-distance propagation via VHF and UHF.

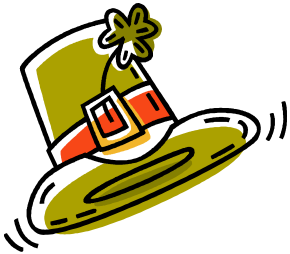
VHF operators greet CMEs as a welcome opportunity for unusual, enhanced propagation. "CMEs can trigger the Aurora Borealis," explained ARRL Contest Branch Manager and VHF aficionado Sean Kutzko, KX9X. "If the aurora is intense enough, you can use it as a 'wall' to bounce signals off of on 6 and 2 meters -- and sometimes higher. If you have a beam on the VHF bands, point it north (or south, if you're in the Southern Hemisphere) and listen for strange-sounding signals."

Kutzko noted that aurora can cause audio signals to become very distorted: "On 6 meters, SSB signals become quite difficult to understand, and on 2 meters, it renders sideband practically unusable. CW is the preferred mode of communication during an aurora opening. Even so, the pure tone of a CW signal becomes distorted as well, reducing the pure 'beep' tone to a whisper-like 'pffft.'"



Please send any articles  
for the newsletter to  
[shelbyminier@gmail.com](mailto:shelbyminier@gmail.com)

*Continued on the next page*



## Solar Flares, continued from previous page

In 2013, solar activity levels are expected to peak with the next solar maximum within the 11-year solar activity cycle. "We now know how powerful space weather can be and how events that begin on the surface of the Sun can end up wreaking havoc here on Earth," said SWPC Director Tom Bogdan. "This is why NOAA has a Space Weather Prediction Center -- to forecast when space weather is coming our way, so we can avoid or mitigate damages. We're coming up to the next solar maximum, so we expect to see more of these storms coming from the Sun over the next three to five years."

Click [here](#) for an in-depth look at sunspots, solar flares and coronal mass ejections.

*From the ARRL Website*

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## February Amateur Radio Testing Results

There were 5 applicants for the February VE testing session held at the Dauphin County EOC, 911 Gibson Boulevard, Steelton.

All applicants passed... (1) Extra (4) Technician

VEs that helped:

KE3YC  
N3HLK  
N3QLB  
KB3OZA  
K3DRE  
KA3PDQ



Thank you very much!  
Steve Gobat, KA3PDQ

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## Letter From the Editor

I have just a few random things this month.....

In case you missed it earlier in this edition of the HRAC newsletter, please note that from now on the monthly meetings will be held at Harrisburg Area Community College at the Public Safety Center (gate 5 off of Industrial Road).

The next VE testing session is on Saturday April 18<sup>th</sup>. The location will be determined by the time the April newsletter is completed.

If anyone has any information for the April newsletter, please email it to me at [shelbyminier@gmail.com](mailto:shelbyminier@gmail.com). If you have not submitted anything lately, please consider writing an article.

Thank you,  
Shelby Minier, K3EMT



HRAC Newsletter



Pictures from the Ham Feast that was held at Fire Mountain on February 8, 2012.

Various door prizes were given out.

Two VHF portable radios were given as prizes. Marty (KB3BAA) and Tim (KB3OZA) won the radios in a random drawing.

# MEMBERSHIP APPLICATION

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.