



February 2013

# The HARC Spark

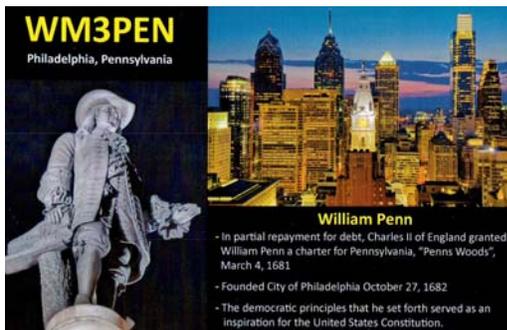
The Official Newsletter of the  
Holmesburg Amateur Radio Club  
WM3PEN 146.685 Mhz Repeater  
K3RJC 444.9 Mhz Repeater  
K3FI CLUB CALLS WM3PEN  
Web Site <http://www.harcnet.org>



## *HARC IS RADIO ACTIVE! Upcoming Charter Day Special Event*

### **HARC Celebrates Pennsylvania's 332<sup>st</sup> Birthday**

On March 9 and 10, HARC will celebrate Pennsylvania's 332<sup>st</sup> birthday by participating in Charter Day events. Charter Day is the day King Charles of England granted William Penn a charter for land in the New World to make up for a large debt that the king owed to Penn's father. William Penn had initially decided to name the land "Sylvania," which in Latin means 'woods.' King Charles II added the prefix 'Penn' to the name in honor of William Penn's father, Admiral Sir William Penn, who had served England as a rear admiral. Pennsylvania state museums are open for free on Charter Day.



WM3PEN (William 3 Penn) will be on the air both days from 1300Z – 2359Z as band conditions permit. A special QSL card will be offered. This is a good opportunity to get ready for the 13 colonies special event July 1 – July 6<sup>th</sup>. If you are interested in operating during the special event contact WA3PZO.

### **Looking for New Meeting Location**

As announced at the January meeting, HARC has been informed that our current meeting room will not be available in 2014. We are in the process of looking for a new location.

Several club members have made contacts with people and organizations that they are involved with. We want to thank KB3UWJ, N3ZZK, AB3EO, KC3JV. We're still working on finding a room.

The room should be similar to our current meeting room with seats for about 40 people. The ability to set up a projection screen and table to show presentations. First floor location or an elevator. The meeting night could be changed if necessary.

If you have any ideas contact Bob, WA3PZO

### **Club Elections**

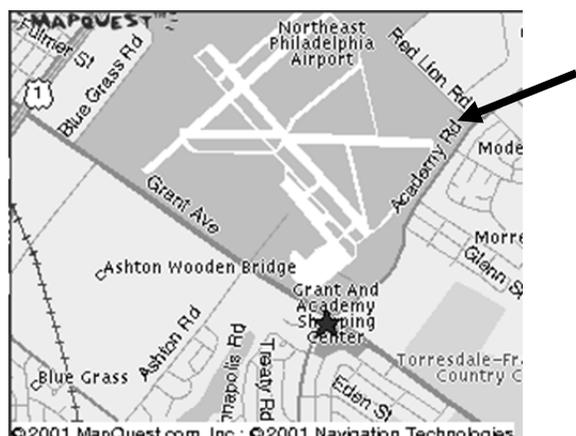
Club elections will be held at the March meeting. If you are interested in serving as President, Vice President, Secretary, Treasurer, or a member at large contact Bob, WA3PZO to be placed on the ballot. Take part in leading one of the most active clubs in the area.

**HARC February 28 Meeting  
8<sup>th</sup> District Police Station  
8 PM**

## HARC Board of Directors

President - Mike Wurgley, N3LXN  
Treasurer - Bob Josuweit, WA3PZO  
Membership - Charley Johnson, K3CJ  
Technical - Ron Cardullo, K3RJC  
Member-at-Large - Sol Volen, N3UBY  
Webmaster - Rich Shivers, AB3EO  
UPARC Rep - Mike Feeley, KB3NDC  
Newsletter Editor - Bob Josuweit, WA3PZO  
WM3PEN @ AOL.COM

H.A.R.C. Monthly Meetings - The Board of Directors meets on the 2nd Thursday @ 7:30 PM (Odd number months). General meetings are held the 4<sup>th</sup>. Thursday @ 8:00 PM. 8<sup>th</sup> District Police Station, Red Lion & Academy Rd. Phila PA. No meeting in August.



H.A.R.C maintains the 146.685 repeater located @ Univ. of PA., Phila PA with inputs in Abington, N.E. Phila, and Cherry Hill, NJ; More Club Information & Member Applications can be had by contacting any of the Directors via E-mail. [WM3PEN@arrl.org](mailto:WM3PEN@arrl.org), the web page <http://www.harcnet.org> or writing to HARC 3341 Sheffield Ave, Philadelphia, PA 19136.

## HF AWARDS MANAGER

Are you getting close to having all 50 states confirmed for the Worked All States award or working enough grid squares for to qualify for the VUCC Award? As a HARC service you can now have your QSL cards verified by Bob, WA3PZO, and not have to ship the cards to ARRL Headquarters. You must be an ARRL member to qualify for the awards. Additional information and links can be found on the HARC website ([www.harcnet.org](http://www.harcnet.org))

## HARC Bulletin Schedule

### Bulletin Station K3CJ

Wed 2000L Amateur Radio News Line  
ARRL Audio News  
The RAIN Report  
Contests / Special Events / Hamfests  
Sun 1000L This Week In Amateur Radio  
Gate Way 160  
Handy Hams  
Contests / Special Events / Hamfests

## PHILA ARES INFORMATION

All amateurs interested in participating should check into the Phila ARES Net, Sunday's at 9:00 PM, hosted on the Phil-Mont Repeater System; 147.030 MHz (+offset 91.5 PL) ;444.80 MHz (+offset 186.2 PL) When control operators are available, Echolink node 29742, WU3I-L, is on the repeater. Backup link is KB3IV-L.

All interested amateurs are welcomed and encouraged to check in for more information. There is always a different topic of interest to the amateur community discussed with an informal round table of comments and suggestions.

Look forward to having all check in on Sunday nights @ 9:00 pm. See web site for more information.

- Visit the Philadelphia ARES web site <http://www.harcnet.org/aresindex.html>



## VE SESSIONS

PhilMont Mobile Radio Club has testing in Ambler, PA on the 4th Thursday of every month. Exams , 1414 E. Butler Pike in Ambler, PA.

Registration begins at 7pm.

Warminster Amateur Radio Club has testing the last Wednesday evening of each month except August and December. The sessions are at the Warminster Recreational and Educational Center on Little Lane, and start promptly at 7:00 PM (registration 6:45 PM).

Bryn Mawr - quarterly on a Saturday. Contact Bob Lees, W3ZQN, [rjlees@aol.com](mailto:rjlees@aol.com)

**Keep up on the latest HARC news by checking out the Club website [www.HARCNET.org](http://www.HARCNET.org)**

## Upcoming Events

**Next Club Meeting: February 28**



Search Database News  
by Callsign



WM3PEN



Ham Radio Headlines

The Maritime Mobile Service Network

*QRZ.COM rotates through users pictures and qsl cards on its home page. WM3PEN was featured earlier this month.*

## School Club Roundup

Objective: To exchange QSO information with club stations that are part of an elementary, middle, or high school or college. Non-school clubs and individuals are encouraged to participate.  
School Club Roundup

### School Club Roundup

New... Young... Voices on the air. That's the thrill of the biannual School Club Roundup sponsored by the Long Island Mobile Amateur Radio Club. The February week long event sponsored by the ARRL and the Long Island Mobile Amateur Radio Club brought together those interested in radio, students of all ages, amateur radio clubs and other ham radio operators together on the air. According to reports this might have been the largest school roundup yet with schools participating on 4 continents. Bob, WA3PZO, put WM3PEN on the air. However contacts were few as traffic delays on I95 and poor band conditions got in the way. Here are comments gleaned from the School Roundup Forum.

We heard many new voices on the air. The development of the students on the radio is coming through loud and clear. Certainly there has been several station improvements since the

fall. There are many schools now easily heard with confident and competent students at the radio. Has a new school participation record will be achieved? The graying of amateur radio is slowing -- let's all keep up the great work that this event is doing for our hobby.

Because we are losing so many licensed and experienced 8th graders to the High School in the fall, we made a huge investment in 6th graders this go round. It takes a lot of time and energy to change those tiny whispers into confident voices. Voices heard outside the classroom. Although impressed with the quality of activity at the two locations I supported, School club KF5CRF and Club station KO5OK. One of our 6th graders was totally unexcited until she talked with the Falkland Island. When she learned that there are stations in Antarctica, Africa and we know the rest of the list; she became excited about amateur radio. Next year, as a 7th grader Mr. Harper will be able to get her to successfully earn a technician license. KF5CRF makes a huge investment in 6th graders to prime the great voices for the 7th and 8th grade.

Paul /KC5CYY mentor for KF5CRF and KO5OK

Highlights include making our first CW contact ever on Thursday with DN2AA. Students utilized the computer to translate the CW, while I used the keyer to make the contact. It is still hard for some students to comprehend this was the main mode of communication in early radio, but very effective. Later in the day we set up our dipole strung as a sloper off our gym pointing eastward (only direction available) to make our traditional QSO with K9SOU and also pick up a few more schools along the way.

Friday had us focused on digital operations as former student Jake, KC9OQN didn't have school in the morning and came by to help us out. He operated with students while I led discussion with my classes about the Russian Meteor event. We picked up a couple new countries, not as exotic as Antarctica, but St. Helena and Gibraltar were new ones for the school. We also worked LX9LTE (Luxembourg school) who we had talked to earlier

this school year and exchanged QSL cards. Pat, their op, shared that initial exchange helped encourage their participation this February in SCR! Way Cool! Have a Great Day and 73's from the Flatlands of Illinois!

-Troy W9KVR  
W9GRS Glenn Raymond School, IL



About half of the kids voted raising the antenna as “most fun” during the event, which involved placing ropes over two 120ft tall cedar trees with a compressed air “Antenna Ascent Artillery” device fabricated by host ham W9SK. About half the kids voted radio operations/QSOs “most fun”. A few voted for a session learning about electrical and electromagnetic waves, including seeing their voice on an oscilloscope in both baseband and on modulated RF carrier.

With guidance from class teacher Joe Burgener, the SCR prep day (Monday 11 Feb) included a learning session that tied in with certain science, technology, engineering, and math (STEM), geography and social studies topics they have been studying so far this school year. In this way, ham radio was used as a tool to better engage students in a variety of school subjects while introducing them to new topics & concepts that we hope will enhance their interest in learning & school.

Stephen Kangas W9SK  
SCR Host for Two Rivers School, North Bend,  
WA

## October 2012 results

LIMARC organizers were hit hard by Superstorm Sandy. No power or internet service for several days caused several logs to be lost to the bit bucket. Efforts are under way to get all of the entries so that the results can be posted. WM3PEN is hoping for a good showing the event. The next School Roundup will be October 21-25. If you are interested in operating with the Club call during the event, contact Bob, WA3PZO.

## A HOBBY WITHIN A HOBBY

By Bert, K3IUUV

Most (or at least many of us) had another hobby when we were young (a long time ago for some of us!) What is that you ask? Stamp collecting (Philately) of course. In my case it was in my early teens. Long forgotten, several years ago I uncovered my teenage stamp album. It renewed my interest, and I began to accumulate other stamps, both recent and vintage, concentrating on stamps issued by the United States and its territories.

As my interest continued, I wanted to integrate my interest in Radio Communications into the Stamp Collecting hobby. Well, how to do it? There is an entire class of stamps pursued by collectors, which are termed Revenue Stamps. These stamp issues began in the early 1860's and were in response to the Revenue Act of 1862. The North started to tax a large variety of items, to fund the Civil War effort. This included such items as All Legal Documents (including bank checks, contracts, etc.); Medicines (yes, including the various elixirs and cure-all ointments), Matches (books and cartons); and others. Payment of the tax was verified by affixing Revenue stamps to the item. Similar in nature and almost fitting into the category of Revenue Stamps, are **Telegraph Stamps** (here's the Radio Connection!). First, a little background. The various telegraph companies that came into



existence following Morse's first experimental Public Telegraph line (April 1845) issued these stamps. Private companies then began stringing telegraph wires in many populated areas. By 1850, there were almost 50 of these private companies vying for business. Just as today, many of them soon consolidated in an attempt to improve their business ventures. The first transcontinental telegraph line was completed in October 1861. Funding for use of the telegraph lines was obtained by charging a tariff to the sender or recipient.

In the late 1850's the use of "Prepaid" stamps came into use in the US. Also, "Collect" stamps were issued, which required the recipient to pay the amount due before being allowed to receive or read the telegram!

The cost of telegrams (and thus the face value of the stamps) ranged typically from 1c to 50c, based on the message size and destination. Also common were stamps bearing the legend "Good For One telegram of 10 (or however many) Words or Less." From this, grew the use of abbreviations, to reduce the word count (like today's "LOL", "QRZ", etc.?). In addition, many stamps were issued as "Complimentary", intended to be given out as incentives by various business establishments (sort of like modern Green Stamps"?).

The practice of using such stamps for telegraphic communication continued until about 1946, culminating in a Commemorative issue at the World Telecommunication Conference in Atlantic City in 1947.

With that as the background, I focused on acquiring representative stamps from the various telegraph companies that existed during this time frame. I also wanted to mount and display them on explanatory pages, in an album. Creating the album pages was straightforward, albeit tedious. Using a CAD program (I'm partial to Drawplus), I created individual pages for many of the companies. On these pages, the stamps that were issued are organized by Company, Date, Denomination, and any other distinguishing characteristics. This task was made a little easier

by referencing a set of sequential identifying numbers, assigned by the Scott Publishing Company (one of the standards used by philatelists). Suggested resale values for Telegraph, and most other stamps is also shown in Scott and other catalogs.

Next, how to acquire the specimens.

Well, there are a number of stamp dealers that specialize in Revenue Stamps. A search on the web will quickly point you to many them. Another source is listings on eBay, Bidstart or other web auction sites. A word of caution. These stamps, as well as all other collectibles are valued according to condition. An undamaged, well-centered, light (or no) cancellation example will bring a premium. If you decide you want to start such a collection, be careful to pay based on condition. A poor example is valued at significantly less than a prime example. Interestingly, many of the very early issues are still available in MOG (Mint, Original Gum) samples. This suggests that many stamps languished in drawers or cabinets until later acquisition by stamp dealers. Value ranges from 20c to \$1000, based on scarcity and condition, with some of the early issues

being the cheapest!



So, there you have it. Looking for another way to invest in your interest in communications ? You could do worse than starting a collection of Telegraph issues

and related paraphernalia.

(via the Mt. Airy VHF Radio Club, Cheese Bits.)



The **ORIGINAL**  
"Social Network"

**Ham Radio!**

[www.Hello-Radio.org](http://www.Hello-Radio.org)

### **Pennsylvania "67" Challenge Award**

Amateur Radio operators around the world have the opportunity to participate in the Pennsylvania "67" Challenge. The Challenge, sponsored by the Holmesburg Amateur Radio Club, is to make contact with all 67 Pennsylvania Counties.

The Challenge is open to all amateur radio operators regardless of individual station capabilities. All contacts must be 2-way communications made in real time. These contacts may be on any Amateur Radio band/mode.

Contacts made using repeating devices such as FM repeaters, Amateur satellites, moon-bounce, and keyboard-to-keyboard contacts through digipeaters/nodes are valid, because these QSOs are made in real or near-real time. Contacts using IRLP, Echolink, or D-Star are valid as long as a radio is being used by both operators. All contacts must be made from the same county.

As an incentive Pennsylvania "67" Challenge certificates may be earned by working stations in 20, 40, 60, or all 67 Counties. Paper or electronic QSLs are acceptable. The contacts can be verified by a local club officer or mailed to the Holmesburg Amateur Radio Club.

HARC Award Manager Bob Josuweit, WA3PZO said there was a need to have a County Challenge in Pennsylvania that was within the reach of most hams in Pennsylvania. When other state awards lost their sponsorship it was an opportunity for the Holmesburg Amateur Radio Club to fill the void.

Complete rules will be posted on the HARC website. Questions on the Award can be directed to HARC at [WM3PEN@ARRL.NET](mailto:WM3PEN@ARRL.NET).

### **Amateur radio 70 years ago this month, Feb 1943**

Civilian Defense has been active lately, for wartime reasons the news didn't get out at the time but it can now disclosed the Ohio Valley flood in December was one of the worst in history. Amateurs with the War Emergency Radio Service who have been close to previous floods know what it means, isolated cities in distress, mass evacuations, tens of thousands of homeless to care for and the attendant emergency communication that could be relieved only by us. This time it wasn't! The Civilian Defense Corps was able to boast it mobilized a hundred thousand trained relief workers but the War Emergency Radio Service was not able to take part. And why not? Part 15 of the FCC "Rules Governing All Stations in the War Emergency Radio Service", "Section 15.63-Service which can be Rendered" states, "Civilian Defense stations may only be used for essential communications relating to Civilian Defense and ONLY during or immediately following actual air raids, impending air raids, or other enemy military operations of acts of sabotage." The War Emergency Radio Service was silent during the entire disaster. (The FCC rules will be amended later in 1943 to allow the WERS to operate during natural or manmade disasters)



Many ham radio operators are operating "wired wireless" stations, also known as current carrier, as has been posted in several past monthly posts. Operating on frequencies of 200 KC or lower over the electric wires a range of only 5 to 15 miles is common. W6ULE received a call from one of the FCC monitoring stations that he was in violation of wartime restrictions. He was operating wired wireless on 150 KC and was told he was heard 50 miles away and causing interference to a navy communications station. His transmitter was running about 25 watts power at the time which he had just increased from 12 watts. It goes without saying he now is operating with much less than 25 watts.

On February 7, the United States instituted rationing of leather shoes. Each man, woman, and child could purchase up to three pairs of leather shoes a year, using designated stamps in War Ration Book One, and later in Books Three and Four. To simplify the system, only six shades of leather were produced. However, the supply of leather continued to decrease. On March 20, 1944, the ration was reduced to two pairs of leather shoes per year. Shoe rationing continued until October 30, 1945. Civilian Defense volunteers received NO extra ration and had to make do with same ration the general public received.

Word has been received that the Postmaster General in Australia has approved the start of a Civilian Defense Emergency Radio System. The system will start in New South Wales with the State War Effort Coordination Committee and will provide operators for 25 stations. These will be located in Sydney and outlying suburbs and will operate on frequencies in the 28 Mc band. The entire system will be manned by ham radio operators. After many years of effort, the Wireless Institute of Australia has demonstrated the value of the ham radio operator to the community. As of September last, almost 150 applications have been received. For the time being, the operations will be confined to Sydney and the suburbs but it is anticipated that every large town will have its own Civilian defense Radio system installation. Just how long this will

take is difficult to say. Those applicants who apply will be investigated by the Security service, and if accepted will be issued police passes, armbands and stickers for the windscreen of their cars. (Note: Australia is the only other country I have read that had a Civilian Defense radio service, I'm sure many other countries had systems but I have not found any information on them. It's also interesting that the Australian system would start in the south of Australia as almost all the cities that were bombed by the Japanese during WWII, such as Darwin and Broome, are in northern Australia.)

On the warfront, Feb 2nd in the Soviet Union, the Battle of Stalingrad comes to an end with the official surrender of the German 6th Army. The German public is informed of this disaster, marking the first time the Nazi government has acknowledged a failure in the war effort.

"Amateur Radio 70 Years Ago this Month" is a monthly feature during the 70th anniversary years of WWII. Past monthly posts can be found on my W.E.R.S Yahoo group at: [http://groups.yahoo.com/group/war\\_emergency\\_radio\\_service](http://groups.yahoo.com/group/war_emergency_radio_service)

**SPECIAL EVENT on Saturday, February 23, 2013: commemorating the 68th anniversary of the Battle for Iwo Jima, remembering our Marine and Navy veterans lost in Feb 1945**

**WOFSB AMATEUR RADIO SPECIAL EVENT STATION**

1. COMMEMORATING THE 68th ANNIVERSARY OF THE BATTLE FOR IWO JIMA AND THE 6,821 MARINE AND NAVY VETERANS KILLED IN ACTION FEB 1945
2. PAY SPECIAL TRIBUTE TO OUR 3,617 SUBMARINE BROTHERS KIA HELPING US WIN WWII
3. A SPECIAL THANKS TO THE SUBMARINE USS COBIA SS-245 FOR THE SINKING OF A JAPANESE TRANSPORT WITH A TANK BATTALION HEADING TO REINFORCE JAPANESE TROOPS ON IWO JIMA

**WE SUPPORT OUR TROOPS**

USS COBIA SS-245 WWII PHOTO

In memory of Tom McNally, K0EJN 1928-2016

FIRST FLAG RAISING IWO JIMA FEB 1945

WALL OF HONOR NATIONAL SUBMARINE MEMORIAL EAST GROTON CT

ARS WA3PZO DATE 02/23/13 UTC 16:55 BAND 20M MODE SSB RST 5/7

**WOFSB Certificate**

## The Start of SSB

(<http://www.ce-multiphase.com/history.html>)

In the 1940's the principal mode of voice communications, as used by amateur, commercial and military radio services, was Amplitude Modulation (AM).

At the conclusion of World War II, great numbers of servicemen who were exposed, for likely the first time, to two-way radio communications were bitten by the radio "bug" and flocked to the Amateur Radio Service. The large numbers of operators, coupled with the limited frequency resources available to amateurs, led to near intolerable levels of AM voice interference.

Many, in their backyard workshops, looked for ways to cram more voice signals into the fixed amount of spectrum (sounds familiar, doesn't it!). A few investigated single sideband, suppressed carrier technology and by 1951 several test stations were operational on the new mode.

Central Electronics is generally credited with giving the initial push that got amateur single-sideband off the workbench and into the ham shack. The Company's first commercial product, the Central Electronics 10A was formally released in September 1952. Central's 10-A took Don Norgaard's "Single Sideband Junior" exciter concept (originally featured in General Electric's Ham Notes) and made it into a viable system. The 10-A used the heterodyne scheme whereby the single-sideband signal was first generated at 9MHz and later mixed, using either crystals or an external VFO, to the desired output frequency.

Effectively, the 10-A used the heterodyne principle in a manner typical for high performance receivers of that time and was the first amateur transmitter to utilize a mixing scheme. The result was a stable, low cost single sideband exciter which was within the financial grasp of virtually any amateur.

Central's founder, Wes Schum, W9DYV, was a major influence in the single-sideband movement. His combination of excellent engineering skills, the ability to explain complex topics in easily

understood terms, his unstoppable spirit and light-hearted personality were then, and remain today, unmatched.

Central continued to manufacture a line of high quality products, which culminated with the Company's 100V and 200V transmitters. Designed by Schum and his lead engineer Joe Batchelor, these transmitters were decades ahead of their competitors.

Central became, in late 1958, a subsidiary of Zenith Electronics and continued transmitter production until 1962 when the Company was suddenly, and unexpectedly, deactivated.

For collectors, the 100V and 200V represents the highest standard of vacuum tube transmitters ever made. They offer, today, robust reliability, excellent audio quality and command a place in any serious radio equipment collection.

A total of fifteen hundred 100Vs and five hundred 200Vs were manufactured. Due to their limited product and relatively high price (\$800 in 1959) few were ever scrapped and most survive, today.

## Burlington County Award Open to All



The Jersey Devil Award Certificate is presented by the Burlington County Radio Club to any amateur for working five stations in the New Jersey Pinelands (the home of the Jersey Devil) including at least one member of the Burlington County Radio Club. QSO on any amateur band in any mode with any BCRC member or other station in the towns or zip codes in the Pinelands area will qualify as a Pinelands contact. Only one contact with each station will count toward the award, regardless of the band or mode of subsequent contacts. Short wave listeners meeting the requirements on a heard basis are also eligible and welcome to apply. <http://www.k2td-bcrc.org/>

## *K9YA Telegraph*

### **The Good News About Amateur Radio**

It's Free, It's Fun, It's All About Ham Radio

The *K9YA Telegraph* is a free, monthly, general interest amateur radio magazine read by hams in more than 100 countries.

The *K9YA Telegraph* contains the stories and features most wanted by our subscribers because it is written by our subscribers. An e-Zine—it is delivered monthly as a full-color PDF file.

If you're in the mood for Morse, hankering for history, gluttonous for gear, ravished for a review, needing nostalgia, or just plain famished for fun, you'll find it in the *K9YA Telegraph*.

Sample issues and subscription information can be found at [www.k9ya.org](http://www.k9ya.org).

### **On the Air!**

**Carl, N3ZZK**, worked 9U4U in Burundi. The DXpedition by Belgium ham radio operators made over 70,000 contacts.

**Bob, WA3PZO**, continues to rack up endorsements for the CQ WPX Award. This month he received endorsements for working 400 and 450 different prefixes on SSB and for working 160 North American prefixes. Bob says his next endorsement goals will be for 500 prefixes and 300 prefixes on 20 meters. Each contact is confirmed either by a traditional qsl card, Eqsl or LOTW.

Carl and Bob worked T46RRC on Santa Maria Island. This is a new Cuban prefix for both.

## **QSLs in 1 day**

Once you make the QSO and the bands die down, you still have to write out qsl cards and upload your log to EQSL or LOTW. Here's one solution to speed up the process.

**EAST FORK WORTH, Oregon; February 25, 2013** — Rural Macklinburg County ham radio operator Burt Groundsman has developed a unique method to speed up the QSL card process — the small, postcard "thank you" that radio operators send each other to confirm a contact.



"It occurred to me as I was filling cards out. Each QSL card required me to write in a different date, time, frequency and mode of operation. Now, I only make QSOs on one day

of the year at a specific time and frequency. I've had my QSL cards pre-printed with the date, time and frequency, so all I have to do is hand write the call sign in and I'm finished!"

The innovative idea has its drawbacks, though says Groundsman. Last year he inadvertently missed his scheduled time because he stepped out for a haircut.

"I realized while sitting in the barber's chair that I was supposed to be on 20 meter SSB. Unfortunately, I had to wait an entire year to try and make another contact."

While some may scoff at Groundsman's idea, he says it's got a huge upside.

"It only takes me about 4 seconds to do all of my QSL-ing for an entire year!" says the well-coiffed ham.

Interested in working Burt on the air? He's on 20 meter SSB, 14.240 MHz, December 13, at 10:30 UTC each year.



HOLMESBURG AMATEUR RADIO CLUB  
3341 Sheffield Ave., Philadelphia, PA 19136  
"Serving the Community Through Ham Radio"

**Club meeting: February 28**



## HOLMESBURG AMATEUR RADIO CLUB 2013 MEMBERSHIP FORM

HARC, 3341 Sheffield Ave, PHILADELPHIA, PA 19136  
<http://www.harcnet.org>  
WM3PEN/K3FI



All members in good standing are eligible to vote and hold a board office. Dues are \$20.00/year.  
Make checks payable to H.A.R.C. and mail to 3341 Sheffield Ave, Philadelphia, PA 19136. Membership year begins April 1.

NAME \_\_\_\_\_ CALL \_\_\_\_\_

ADDRESS \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Telephone # \_\_\_\_\_ Would you be willing to receive the newsletter via email? \_\_\_\_  
E-mail \_\_\_\_\_

Are you an ARRL member? YES NO Membership Expires (mm/yy) \_\_\_\_\_