President’s Message

My wife and I are spending most of September in China so I am writing this message a little early so as not to delay the publication of the SPARC newsletter.

Many of you know that my second career is in the Challenge Course Industry. This job, actually jobs – I work for several different organizations doing many different tasks, involves everything from simple games to activities called initiatives which require a group to solve a problem, to high adventures and zip lines.

On a recent Tuesday I was at a Camp near Quarryville helping participants get geared up for a trip down the zip line. To access the zip line at Black Rock you need to either climb a rock wall or a pole with large staples driven into it. I looked at a boy, probably 12 or 13, and noticed the right leg loop on his harness hanging loose. I thought he had failed to get his right leg into the leg loop so I went over to help him. After I had him remove the harness so we could get both legs through the proper parts of the harness I realized he had no right leg, not even a stub. So, I got him back into the harness, tightened the parts that had parts in them as tight as I could and sent him to the pole. Now you have to know, there was no sign of a wheelchair, crutches, or even a cane. He had come to the zip line from the main camp over not so stable terrain. So, this lad hopped over to the base of the pole, the belayer attached him to the safety rope, and he proceeded to climb the 35 feet to the zip line platform using his arms, left leg and right hip. Not only could he climb nearly as fast as I can, I really believe he could hop as fast as I could walk! It was really amazing see to what he could do, and see his positive attitude, in spite of a challenge that would keep others grounded.

So, this word to all you old guys out there, all you not so old guys, and all you YLs who have ever complained about your aches and pains, I don't want to hear it. (even though I must admit with embarrassment that I sometimes complain myself) All of you out there who complain about how lazy kids are today, I don't want to hear it. All of you who have ever said “life isn't fair” think about the hand this young man was dealt and look at how he chose to use that hand.

I knew the day was going to be rainy so I wore my “No Rain, No Rainbows” T-shirt. A lot of people commented on it. The point being that we should never let the weather ruin our day.
This kid was an inspiration to me. If he can do what he could do on one leg, and I might add, never complain, how much should we be able to do?

73, Harry WA3FFK

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**Coming Events**

**SPARC membership meeting 7:00Pm**
**Tuesday 23 September 2014** at the club site, 1751 Breneman Rd., Rapho Twp., (Manheim P.O. 17545 for GPS) The program for the evening will be an IRLP demo by Jim Hartranft, KB3ZGE.

**Thursday, 23 October 2014.** The Columbia Halloween Parade is an annual SPARC activity that is both a public service and a lot of fun.

Communicators rally at the Susquehanna Fire & Rescue Company No. 4, Tenth and Manor Streets, Columbia about 5:30PM. Volunteers needed. Contact Dave Payne, N3LOM, for details. This is an HT simplex event. You will need a flashlight.

**SPARC membership meeting 7:00Pm**
**Tuesday 28 October 2014** at the Grundy Astronomical Observatory at the Baker campus of Franklin & Marshall College.

Mr. Ed Cook will demonstrate the two instruments installed at the location. On the floor is the historic 11 inch Clark-Repsold refractor, installed in 1886, and a 16 inch Boller & Chivens reflector.

These telescopes operate from their enclosed laboratory which is equipped with a retractable roof. Here we will share the commonalities of our two avocations with discussions about moon bounce, solar propagation effects, and the artificial amateur radio satellites.

The telescopes at Grundy are capable of resolving all of our solar system planets, and the distant galaxies including nebula. Grundy is equipped with a classroom and lavatories.

Grundy is located behind the athletic fields at Harrisburg Pike and President Ave.

If you need to use your GPS to locate Grundy. Either of these addresses are adjacent to the driveway that leads to the entrance to the observatory:

815 Wilson Dr. Lancaster, Pa. 17603 or 1401 Clayton Rd. Lancaster Pa. 17603
Any problems contact Jerry Wilson, 717-672-6261

**Monthly Breakfast**
The second Saturday at 0800 of every month is a SPARC breakfast at Gus's Keystone Restaurant, 1050 W. Main St, Mt Joy, PA. Contact Gerry Wagner, KB3SSZ, for more details. Everyone interested in Amateur Radio is invited to attend. See http://guskeystone.com/ for restaurant details.

**Other Events**

**Saturday, 4 October 2014**
The Pennsylvania Amateur Radio Conference (PARC)
See the full details on page 10 of this newsletter.

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**Editor’s Notes**

Fall officially begins September 22, 2014 at 10:29PM eastern time. The Fall equinox is when the Sun stands directly over the equator on its way to the Southern Hemisphere. If you’re standing at the North Pole you’ll still see the Sun along the horizon, but not much longer.

The summer sporadic E season ended in August and the Fall tropospheric propagation
season is underway. VHF and UHF propagation out to almost 1000 miles can be very good. Sometimes the higher bands can be better than lower. If 2m is enhanced, check 432 and 1296. You may get a surprise.

Keep those articles for publication coming. This newsletter is only as good as the submitted material.

73, George, W3FEY

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**Six Meter DX Report**

10 September 2014

Six meters has entered into the Fall TEP season. Although there are not the almost daily openings that characterize the summer E season, there is still considerable action if you are at the radio at the right time. Most of the TEP openings occur from 22:00z--01:00z. They are characterized by deep QSB. From here they generally run roughly north-south to fairly well defined areas of South America. I've attached screen shots of the ON4KST maps for August 31, September 7 and September 8 to show what areas of South America where the openings to the US occur.
I’ve missed most of the openings but did work PY1RO on August 31st. The TEP openings sometimes also extend into the South Pacific but the lack of land and six meter operators limits the contacts there. In recent years the North and South Cook islands (E51) have been active and worked about an hour or two after the South American stations. I’ve heard that Warwick E51WL in the North Cook Islands suffered damage to his station in a recent storm and is temporarily QRT. If that is correct that will really curtail contacts with that DXCC.

As we approach the Fall equinox there is always the possibility of a TEP-F2 link to ZL or VK. It happens just often enough to make it worthwhile to keep the radio tuned to 50.110MHz.

There was a report of a large solar flare today so that may spice things up for a few days. Keep listening.

73, Chris W3CMP

Ed Note: Larger versions of the ON4KST maps are located at the end of this newsletter.
Nearby Nets of Local Interest

If you need information on access tones etc, the referenced web sites below will usually provide the information needed. For more information, see http://arcc-inc.org/arc-fdbas.html

Monday Ephrata Area Repeater Society Net
9:00 PM on 145.450MHz.

Monday Keystone VHF Club
Combined Club & ARES/RACES Net 8:30PM on 146.970MHz.

Monday South Mountain Radio Amateurs
SMRA Club Net 9:00PM on 145.430MHz
SSB net 9:00PM on 146.210MHz. May be slightly delayed by SMRA club net.

Tuesday Digital Net 8:00 PM on the York 146.970MHz Repeater -- This is a busy digital data training net for beginners and advanced users. The primary mode used is MT63-2k. Other experimental modes are also used.

Wednesday Red Rose Repeater Association Net 9:00 PM on 147.015MHz

Wednesday QCWA Net 9:00PM on 146.97MHz.

Thursday Lancaster Radio Transmitting Society Net 9:00 PM on 145.390MHz

Friday Lebanon County Digital Roundup Net 8:PM on the EARS 145.450MHz (tone 100.0Hz) repeater.

I cover all types of digital/data modes, training on computer/radio interfacing and message handling.

The primary focus is with Fldigi and Flmsg and lots of SSTV, using MMSSTV. The nets are always very informal and have sometimes lasted for 2 or more hours to cover all the evening’s interest.

73,
Bob Sanborn/AB3GF

Sunday Info Net
On the N3TUQ 900MHz repeater: 8:30PM Output: 927.5875MHz Input: 902.5875MHz (-25MHz) PL 114.8Hz.

The N3TUQ 900MHz repeater is located on the LVSRA tower on Cornwall Mountain.

Net control: Bob Howard, KB3QAQ
For more information visit http://www.n3tuq.com/repeater.aspx

PACKRAT MONDAY NIGHT NETS
Visit the Mt Airy VHF Radio Club at: http://packratvhf.com/airtimes.htm for the latest information on VHF/UHF nets.

NTS Eastern Area Phone net
3.917 at 4:00 PM daily for traffic going to EPA, MDC, WPA and Maryland. We have a callup, pass any traffic, after that a round of comments. Traffic manager is WA3QPX. Net could use more checkins from EPA as we normally only get one checkin from EPA and sometimes none. This is where the Fone traffic for EPA net normally comes from. Any questions I will be on 3.917 at 4:00 PM.
73, Paul, WA3QPX

Two EPA Nets Now Accessible via Echolink
The EPA AA3RG and Echolink Traffic Net (EAETN) has been accessible since its inception via Echolink at node AA3RG-R (#149493). See the group Calendar for more information. [Thursday 8:00PM]

Now the Capital Area Traffic Net (CATN) is also accessible via Echolink at node N3TWT-R (#743026). See the group Calendar for more information. All (licensed hams) are welcome to join in on these nets.

73 -Scott N3SW EPA STM-

AA3C note: To visit our group on the web, go to NTS-EPA Group web site: http://groups.yahoo.com/group/nts-epa/

Both nets will utilize the 146.640(tx-) MHz. Transmit access tone: 82.5 Hz.

QRZ News Publication

QRZ News is published monthly. The deadline for submission of items for publication is 11 days before the regular membership meeting on the fourth Tuesday of each month. If material is not copy and paste ready for publication, more lead time is required.

We operate on an exchange basis with other not for profit publications. Articles printed in QRZ News may be reprinted in a not for profit publication provided proper credit is given. QRZ News is archived at http://www.k3ir.org/

Hiram Percy Maxim was an American radio pioneer, inventor, and founder of the American Radio Relay League (ARRL).

U.S. Patents granted to Hiram Percy Maxim.

594,805 - Motor vehicle.
757,941 - Vehicle running gear.
772,571 - Electric motor vehicle.
845,106 - Motor road vehicle.
916,885 Firearms Silencers.
Issued 3/30/1909.

Note that there were no radio or wireless patents issued to Hiram Percy Maxim.

Silencer to AutoMuffler.

H.P. Maxim was awarded the US Patent #916,885 - Firearm Silencer – Issued on 3/30/1909.

Invented and developed by Hiram Percy Maxim, the Maxim Silencer was the first commercially manufactured firearm sound suppressor.

In Hiram’s lab notebooks, it is said, the first idea was recorded that if the Maxim Silencer quiets down a gun blast noise, might a scaled up silencer quiet down the noise from an auto engines exhaust pipe. He made one, in ~1910, and it worked. Hiram then found that the first muffler was patented in USA in May 11th 1897 by M.O. & M. T. Reeves. U.S. Patent name "Exhaust muffler for engines".

"Some times good ideas come too late," Hiram Percy was reported to have said. His less than successful automobile engine design, he described, that he was staggered at the amount of time required to build one small engine, "which shook and trembled and rattled and clattered, spat oil, fire, smoke, and the smell, and to a person who disliked machinery naturally, and who had been
brought up to the fine elegance and perfection of fine horse carriages, it was revolting." complained Hiram.

There was a false story that Hiram Percy Maxim invented the Maxim Machine gun, it was all a mistaken identity since Hiram Percy Maxim's father, Sir Hiram Stevens Maxim was the patented inventor of the Maxim Machine gun. Just in time for World War One. Our Hiram Percy Maxim was a MIT mechanical engineering graduate, class of 1886, of the Massachusetts Inst. of Technology (then a two-year course).

Hiram (W1AW) was the nephew of Hudson Maxim, an inventor of explosives and ballistic propellants; stands to reason he would try that for a while. Beginning in 1892 our Hiram worked at the American Projectile Company of Lynn, Massachusetts.

Hiram Percy Maxim - Circa 1914

Sir Hiram Stevens Maxim's 1895 Machine Gun as described in text of this Linked URL. Sold before WW1.

The British, American and German military bought large numbers of Maxim Machine Guns and they all were used in the trench warfare of WW1.

Shown at right is the water cooled model. This is the model the U.S. Army used in WW1. 1914-1919.
Hiram's Other Accomplishments

<>H.P. Maxim founded the Amateur Cinema League in New York in 1926; he was elected president. The Amateur Cinema League published a monthly journal, Movie Makers.

<>H.P. Maxim wrote an amusing account of his youth in the book "A Genius in the Family": Sir Hiram Stevens Maxim Through a Small Son's Eyes. This book was adapted to the movie screen as "So Goes My Love". [Publisher-New York: Harper, 1936.]


<>H.P. Maxim also wrote the book "Life's Place in the Cosmos", an overview of contemporary science that surmised life existed outside of earth. [Publisher-New York: D. Appleton, 1933]

<>H.P. Maxim also wrote the book "A Virgin Paradise", later made into a movie.

[AA3C's research:]
Hiram Percy Maxim was returning to his home in Hartford, Connecticut, in February, 1936, from a trip to California to visit the Lick Observatory. He fell ill and was taken from the train to a hospital in La Junta, Colorado, where he died the following day, February 17, 1936. Hiram P. Maxim was buried in the Rose Hill Cemetery in Hagerstown, Maryland, in the Hamilton family plot belonging to his wife's family.

Frank Drake is now 84 (in 2014), born 1930. Frank was only 6 years old in 1936 when Hiram Percy Maxim died. Frank Drake didn't start work in Radio Astronomy until about 1959. Upon finishing graduate school in 1958 Drake got a position in late 1958 at the newly founded National Radio Astronomy Observatory (NRAO) in Green Bank, West Virginia. It was here in 1960 that the first SETI search took place. Named Project Ozma by Drake, the search was a two week observation of the stars Tau Ceti and Epsilon Eridani.

The story that Hiram Percy Maxim died on the return trip from the Lick Observatory and a meeting to consult with Dr. Frank Drake, was completely bogus. Frank Drake was in first grade in 1936. Their paths could not have crossed in any way.

H.P. Maxim's book "Life's Place in the Cosmos" (published in 1933), surmising life existed outside of earth, may have been the reason for the visit to and any possible meeting at the campus of the Lick Observatory on Mt. Hamilton, CA.

Present at the Creation
"ARRL Founding President Hiram Percy Maxim was in his 40s (1909) when he became fascinated with radio through his 11-year-old son. Neither of them could have known that it would lead to the formation of the organization we still have today."
Quote from: David Sumner, K1ZZ -- ARRL Chief Executive Officer.
Think back to 1950 when electronic computers were powered by thousands of electron tubes. The air conditioning load to keep them operating was huge. The transistor had only recently been invented and large scale integration was in the distant future.

A computer must have memory to store its start up instructions, programs, and data in process. This was a big problem in the late forties and fifties. The process to get a computer started was not fun for a long time after that.

RCA Labs in Princeton made developmental memory tubes which they called Selectrons. Production tubes were made in Lancaster, PA.

Selectron Ser. No. U83 W3OLV collection

This is a sample of a 256bit Selectron made in Lancaster, PA. Tubes with up to 4096 bits of storage were made.
Floyd also has lab sample tube 155 which does not have a printed label.

For more information on the Selectron see the web site of tube collector Charles Osborne. [http://www.rcaselectron.com/index1.html](http://www.rcaselectron.com/index1.html).

Happy Gigabyte RAM to you. Computers have come a long way since 1943 when [ENIAC](http://en.wikipedia.org/wiki/ENIAC) was designed at the University of Pennsylvania’s Moore School of Engineering to do ballistic calculations. The [UofP Radio Club](http://www.upennradio.org) was founded in 1909. Were any hams on the ENIAC team?

George, W3FEY
Photos by W3FEY

Pennsylvania Amateur Radio Conference (PARC)
September Newsletter #1

As our conference of 4 October 14 draws closer, we want to tell you that we will devote 5 minutes to meeting the candidates, in attendance, for ARRL Offices to be elected this Fall. We will pose the same 1-2 questions to each candidate.
We will have talk-in available that morning from 1045-1155 on the 145.43 repeater with 67 Hz tone.

We learned there are better directions from I-81. Go North on Allen Road to Newville RD, RT 641. Turn right and go 1.2 miles and pass a large cemetery on your left. Turn left on Mc Clures Gap RD and go 3.2 miles and Whispering Pines will be on your left.

Don't forget the idea we mentioned about giving “PARC Scholarships” to deserving hams. What a terrific idea…being a really super Elmer and brightening the day of perhaps some news hams or veterans that have earned special merit. If this appeals to you, please EMAIL: W3HMS@aol.com.

SMRA of Carlisle, PA will host this conference at the Whispering Pines Banquet Hall, just north of Carlisle, PA from 1200-1600 on Saturday, 4 Oct 2014. Directions can be found at; http://www.whisperingpinesbanquethall.com/ Registration and payment can be by PayPal or credit card. Save your ticket to present at the door. Register at http://n3twt.org/events/parc. The fee includes soft drinks, and cookies available throughout the event. DRESS: business-casual dress is highly recommended. Glenn, K3SWZ, will be available to check QSL cards.

The fee schedule on the date is as follows:
15 Sep.............$15
30 Sep.............$17
Door on 4 Oct .....$19

**Agenda:** Building High Quality VHF and UHF Antennas, Live demo of the latest HF Flex Radio software defined (SDR) transceiver, Working the World on the low power HF WSJT-X data mode, Photo visit to an outstanding contest station and Automating Your HF/VHF Station logging and control of radios.

**All:** Please pass the word on this conference. For logistics questions, please contact Don Evans, KB3VAX, at EMAIL:kb3vax@yahoo.com

73, KB3VAX and W3HMS, 9 Sep 14 (#5)
ON4KST Six Meter Propagation chart for Sep. 8, 2014