

# QRZ NEWS

A MONTHLY PUBLICATION OF  
SOUTHERN PENNSYLVANIA AMATEUR RADIO CLUB, INC  
PO BOX 422- Mount Joy, PA 17552

(Founded June 1960)

AN AFFILIATED SPECIAL SERVICE CLUB OF THE ARRL, INC.

*"Public Service through Communication"*

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Repeaters: 145.230 - 449.975 - Packet 145.030 - ATV 923.250, FN10se

Club site 1715 Breneman Road, Rapho Twp. (Manheim P.O. 17545 NO DELIVERY)

## April 2015

### President's Message

Well they are falling all around. Once there were 9 now a scant 4 remain. I never knew Radioshack as the bastion of radio, I am not old like Ted. But like Ted, I appreciated their role in our collective interest. It was never the supply of choice but the choice of now. They may not have what you need but they had something that would work. As the great RS spread and meandered through the decades it somehow lost its way.

Gone were the Radio's that gave its name, too late for the Maker movement to save its crumbling infrastructure. As I walked into the Centerville store I was attacked by discount signs 10, 20, 50% off; banners of the all out push to gain enough cash to make it through another month.

As I pick through the drawers like the vulture I am, in came the most disheartening point of the whole experience. The clerk comes by to inform me the drawers would be for sale next month for \$200 per set of 7. The once mighty now selling the fixtures off the walls.

The whole experience reminds me that there are 5 clubs located in Lancaster. We all have our strengths and weaknesses, our focus and our issues. We all have the opportunity to thrive in this day and age but only with the support and efforts of a strong and willing membership.

Our new building is the next step in cementing SPARC as a club with lasting qualities. With it

we can continue to offer classes for the newly interested, host events above and beyond just Field Day and the PA QSO Party, hold kit building parties (think Tupperware with solder), experiment with many more facets of our hobby as a group, and develop as a community of radio operators.



So what does it take to begin this next step, it takes your support. For the donation of \$200 you too can help SPARC toward its' goal of setting in place its new operating home. For the cost of 7 drawers you too could contribute to

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SPARC's new building. Everyone who contributes at or above this level beginning now until the end of May will have their name added to the doorway as a supporter of SPARC's future.

We are close to our goal, we are near the point of putting this all in motion. Nothing would be finer than hosting the community on Field day with the beginnings of the new home for SPARC's operations.

Help as you can. Please send your contributions in the mail or deliver to your favorite club officer. We do need this facility to continue SPARC's into the foreseeable future. The old tin can has served her purpose but it is time to move into a building that better fits our needs and size.

Your President

Kevin Lampo  
K3LLC

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## Coming Events

**Tuesday, 28 April 2015, 7:00PM SPARC meeting at the Rapho Twp. Municipal Bldg., 971 N. Colebrook Rd., Rapho Twp. (Manheim P.O. 17545 for GPS).**

The topic for the April meeting is The shrinking of testing equipment. Presented by Rich Kaelberer and Mike Daskalopoulos.

A short business meeting will follow.

### Monthly Breakfast

**The second Saturday of every month at 0800 is a SPARC breakfast at Gus's Keystone Restaurant, 1050 W. Main St, Mt Joy, PA.** Contact [Gerry Wagner, KB3SSZ](mailto:Gerry.Wagner@KB3SSZ), for more details. Everyone interested in Amateur Radio

is invited to attend. See <http://guskeystone.com/> for restaurant details.

## Other Events

**Tuesday, 14 April 2015** The Dawn spacecraft goes into orbit around Ceres. Ceres is the largest object in the asteroid belt. See <http://dawnblog.jpl.nasa.gov/> for detailed progress reports and photos.

The Dawn spacecraft is now in orbit around Ceres, but not in a position to take new pictures. It will be early May before significant new pictures are available. See the link above for updates.

**Monday, 6 July 2015, 15:00EDT** Aphelion, the Earth's greatest distance from the Sun and the approximate peak of the Summer Es season. See QRZ News, March, 2009, page 6 for more information on why this is the peak.

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## Editor's Notes

A long time ago, paper recycling was a major income source for SPARC. We collected tons of prime quality recycle paper and delivered it to the Armstrong plant in Marietta. A loading dock accident not involving SPARC caused Armstrong to shut down all non commercial paper collectors at their plant. Dave Payne then started selling our recycle paper to a recycler in Columbia for less money and also less stringent quality requirements.

When the Chinese recycling market closed down the price fell close to zero and paper collection stopped. Later there was enough recovery in pricing, but not enough to pay the costs of much more than member collected paper. The Columbia recycler is phasing out their operation in Columbia and moving everything to West York. The increased cost of transportation will soon make that a loser.

Metal recycling is still a money maker so please keep bring in metal scrap for Dave.

Please keep articles for publication in this newsletter coming. SPARC membership is not a requirement to become a world known author. This newsletter goes to many Amateurs throughout the U.S. and Canada, plus a few in Europe.

73, George, W3FEY

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## Six Metre DX Report

7 April 2015

### Opening Remarks

Hello to everyone from the land of extended winter. Here in the eastern USA we have experienced one of the coldest months of February and March on record, and with the exception of a couple single hop E openings, and the 17<sup>th</sup> March Aurora, the propagation has generally matched the temperatures. Trees are still in dormancy and the ground is a mucky mess as it begins to thaw. March madness, the term used to describe the NCAA basketball tournament and preparation of income tax returns, can also be used to describe the general feeling about the quiet conditions. Hopefully the propagation will warm as the temperature does.

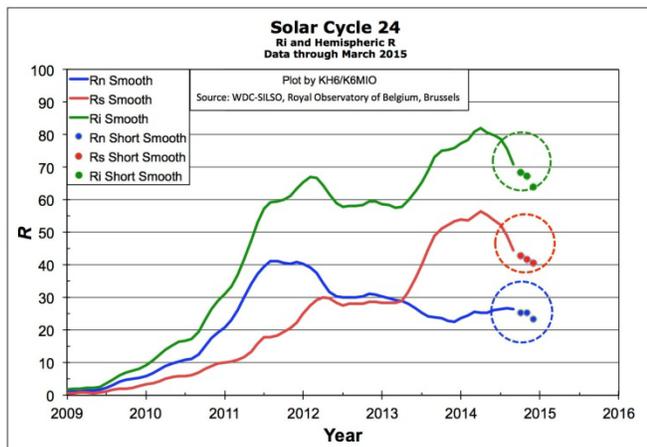
In other parts of the US and the world, however, there has been quite a bit of interesting propagation including F<sub>2</sub>, TEP, Aurora, auroral E, and just plain sporadic E. There also seems to have been an upsurge in the number of active stations from Africa; this has provided several new DXCC for many in continental Europe and a fortunate few in the UK.

Activity here has been confined to starting preparation for a DXpedition to PJ5 St. Eustatius, with K5AND and K4RX. Although the operation will be focused on 50MHz, we hope to have a couple of surprises. In anticipation of the DXpedition I am checking out my new Tajfun (Typhoon) 1000 50MHz amplifier that I purchased from VH electronics <http://www.italab.sk/index.php/en/ham-radio-hf-50-70mhz>. I hope to give the amplifier a good test at PJ5 and will report about its performance in an upcoming column. I want to thank Justin at InnovAntennas for his help in getting the unit here. While looking for a preamplifier to install in the amp, I did run across an interesting item from Australia. Mini-kits Australia makes a compact switching preamplifier for six metres (and other bands) with relays rated at 100 watts. It looks like it may be worthwhile addition to stations running 100 watt multimode rigs. Mini-kits makes some other neat items; the website is listed in the New Equipment section of the column. We are fortunate to have received many interesting reports from many of our regular contributors as well as some new ones, including 2W0TBP, G0CER, G4JBE, GM4UBJ, KG6DX, M1SLH and PJ4NX, and PY1RO. There are also great reports from the K1N Navassa and T30D Kiribati DXpeditions. These reports are the lifeblood of this column, and I thank you all for contributing.

As I am finishing the column, I see that EA8BPX has just worked V63DX, and EA8BLM has worked KG6DX. Both of these impressive contacts are in the area of 16,000 km and proof that the band can and will do strange things. VP8 has just come into the US for the second day in a row, so maybe Spring is here. Enjoy!

**April 2015 Solar Report to Six News**  
KH6/K6MIO  
04/06/15 Solar Cycle 24

As Figure 1 indicates, Cycle 24 is continuing its decline, with recent total smoothed Ri index values slipping into the sixties. The Sun's southern hemisphere (red line) continues to provide the larger amount of sunspot count, while the solar northern hemisphere (blue line) continues to slip away rather slowly at even lower values.

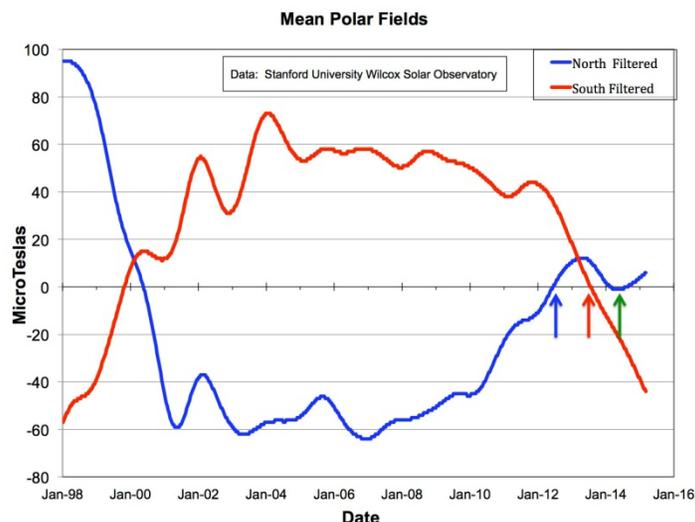


Overall Sunspot Activity Ri and indices of northern solar hemisphere Rn and southern solar hemisphere Rs.

In general, these trends are not unexpected. However, the behavior of the north has been rather odd ever since it reached its broad local maximum in the second half of 2011. One might have expected that the north would have declined more rapidly. By the same sort of logic, one might have expected the south to have risen rather more abruptly in 2012. Instead, both hemispheres continued for more than a year at about the same values, until they parted company in the second quarter of 2013.

Looking at the Sun from another perspective, Figure 2 shows the mean polar magnetic fields of the Sun since before the peak of Cycle 23. These are the fields separately projecting from the Sun's north and south poles. Since the overall long term solar field is primarily a dipole, the two poles have opposite polarities. If one looks at the period just before and after January 2000, one sees that the two

hemispheres passed through zero in opposite directions. This is normal behavior. The field direction reversal occurs within a few months of the peak of the associated hemisphere reaching its maximum.



Mean Polar Fields January 1998 to present.

It will be noted that in this cycle the north is peculiar in another way. Looking at the polar field from mid-2012 to the first quarter of 2014, one notices that the northern hemisphere polar field reversed nominally "on time" just after its sunspot maximum. The plot also shows that the southern hemisphere polar field passed through zero even closer to its sunspot maximum.

The Cycle 23 reversals around January 2000 show the "normal" behavior. While there are wiggles in the lines, they cross through zero rather cleanly and directly. For Cycle 24, the southern zero crossing was also quite decisive. But this was not the case in the north. Nearly two years after its first crossing, the northern field crossed back through zero and then back again (one going down and the other going back up). It is not clear what this signals, but it is yet another peculiarity of an already peculiar cycle. So far, the solar physics world still

seems to be very concerned that Cycle 25 will be unusually weak.

### **Recent Pacific Propagation**

Notwithstanding odd solar behaviors, the northern Spring TEP has been rather good, pretty much everywhere. The Europe-Africa, North-South America, and south and west Pacific-eastern Asia paths have been very active through this writing (early April). The KH6-South America path showed up fairly regularly starting in early February, with PY, OA, LU, CE, CX, HK, and others. By March, it was largely a nightly occurrence, with even an odd JA from time to time. By mid-February the south and southwest Pacific opened from time to time with FK8, ZL, VK3, VK4, VK8, and others. In addition, late March and early April have seen openings to JA, BA, BV, and DU. Of course the latter are not, strictly speaking, TEP, but rather propagation on only one side of the geomagnetic equator, propagating along the northern F-region equatorial anomaly lane.

Six meters is still the magic band.  
73, Jim KH6/K6MIO

### **DXpedition News**

8Q7 Maldives

Nobby G0VJG plans to be active activity as 8Q7CQ from the island of Meedhupparu, grid locator J65LK, a coral island on the east of the Northern Maalhosmadulu Atoll, Republic of Maldives from 5<sup>th</sup> -18th June 2015. There will be a big effort on six metre SSB, with a beacon running. There will also be SSB on the HF bands and some Digital modes. Nobby will be using FT897, 500 watt amplifier, butternut vertical and four element six metre yagi. QSL is via G4DFI.

FS St. Martin

John K9EL will once again be active as FS/K9EL from St. Martin Grid FK88 between 28<sup>th</sup> May and 16<sup>th</sup> June. Activity will probably

be on 160 to six metres. John will be running 500 watts into a three element yagi on six metres, dipoles for 10-30 metres and a vertical for 40-80 metres. John will operate on 60 metres if there is interest. Usually there are daily uploads to ClubLog and LoTW. QSL is via his home call sign or on ClubLog's OQRS. His operating frequencies, except during contests, will be announced in real time via Twitter at: <https://twitter.com/FSK9EL>.

HR Honduras

Gerard F2JD will again be active as HR5/F2JD from Copan, Honduras, between 20<sup>th</sup> February and 14<sup>th</sup> May 2015. He will active on all bands including six metres, on CW, SSB, and RTTY. QSL is via F6AJA and the logs will be posted at <http://LesNouvellesDX.fr/voirlogs.php>.

KH8 American Samoa

Masahiro JH3PRR will once again be active as KH8B from the Turtle & Shark Lodge in Pago Pago during the CQWW DX SSB Contest on 24<sup>th</sup> and 25<sup>th</sup> October and CQWW DX CW Contest on 28<sup>th</sup> and 29<sup>th</sup> November, 2015. He will probably operate as a Single-Op/All-Band/High-Power entry. His operation will take place between 21<sup>st</sup> and 26<sup>th</sup> October and 25<sup>th</sup> - 30<sup>th</sup> November 2015. If like last time, his equipment will be an Elecraft K3 and 2K-FA amplifier 1.5kW, 10-20 metre Hexbeam and 30-160 metre VDP. He will have a six metre beacon on the air. Outside of the contest, activity will be focused on Asia, Europe, and Africa. QSL is via JH3PRR or LoTW. LoTW is preferred. OQRS via ClubLog will also be available too. Contest log will be uploaded after a week. OQRS Bureau will be available for only four months and closed after that.

KH9 Wake Island

Mike AG6IP, ex-ZC4MIS, will be on Wake Island Grid RK39 between 4<sup>th</sup> and 19<sup>th</sup>

September, 2015. He plans to operate as K6W, a memorial station for the 70<sup>th</sup> anniversary of the end of the Battle of Wake Island on 80 to six metres SSB. QSL is via Michael Sangria AG6IP, 1738 Hicks Ave., Olivehurst, CA 95961, USA.

PJ5 St. Eustatius

Dick K5AND, Terry K4RX and Chris W3CMP will be active from St. Eustatius from 26<sup>th</sup> June to 6<sup>th</sup> July, 2015. A straight PJ5 call sign has been requested. Focus will be on six metres although the group will also be active on HF. The group is also bringing 70 MHz equipment. Because of the island topography there may be two six metre stations active; the primary station will look towards Europe and Africa and the secondary station towards North America, Central America and the Caribbean. Six meter and HF equipment includes Elecraft K3 transceivers and KPA 500 amplifiers. Antenna for six will be a seven element K5AND yagi for the primary station and a five element yagi for the secondary station. Equipment for 70MHz will include an IC-7100, amplifier and six or seven element yagi. More information will be made available on the website <http://dkhanson.com/pj5/>.

S7 Seychelles

Giovanni "John", IZ2DPX will be from the Seychelles between 9<sup>th</sup> and 23<sup>rd</sup> August 2015. He has applied for call S79DPX. Activity will be on 80metres through six metres and all modes. QSL via his home call sign. For more details and update, see <http://iz2dpx.jimdo.com>.

V6M Micronesia

Lance W7GJ is planning to travel to Micronesia for a dedicated six metre EME DXpedition, in celebration of his 50 years of VHF DXing. Lance plans to be QRV from 26<sup>th</sup> August to 3<sup>rd</sup> September. Grid is PK90VA. Undoubtedly Lance will have sufficient power and his 6M8GJ antenna. He will not have any internet or email communications from V6, but

has published a planned operating schedule on his web page. Full details are here: <http://www.bigskyspaces.com/w7gj/Micronesia2015.htm>

### Parting Remarks

That's all there is for now. I'm looking forward to reporting on a spectacular first half of the summer E season and a successful PJ5 DXpedition in a few months. For now it's time to finish the clean-up of the winter damage in the yard and orchard and to begin listening for the first hints of summer Es.

Thanks go to the following for their contributions: 2W0TBP, 9Y4D, CT1FJC, DL7VEE for the T30D report, DU7/PA0HIP, E51WL, EA3AKY, EA6VQ, EI3KD, G4FJK, G4IFX, G4JBE, G6TGO, G8BCG, G0CER, GM4UBJ, KH6/K6MIO, K1TOL, K5AND, K5ND, K5QE, KG6DX, K6IJ, K7CW, KA9FCD, K0GU, M1SLH, *MMM*onVHF, N2TU for the K1N report, N5JEH, N5RK, NZ3M, NØJK, PJ4NX, PY1RO, OA4TT, OZ6OM, *SixItalia Weekly*, SM7FJE, TI7/N5BEK, TJ3SN, VE3IKV, VK4MA, VK8AW, W5OZI W7GJ, XE2OR, YS1AG, ZL3NW, ZS6NK, *CQ Six 50MHZ DX News*, and everyone else who contributed to this column. If I forgot anyone, please excuse the omission.

Since here in the States we are approaching our 15<sup>th</sup> April deadline to file and pay our income taxes, I thought the following would be appropriate: "I am proud to be paying taxes in the United States. The only thing is – I could be just as proud for half the money."- Arthur Godfrey, entertainer.

If you have anything you would like to see in upcoming columns, or anything to submit, please contact me at [DXNEWS@UKSMG.org](mailto:DXNEWS@UKSMG.org), or [W3CMP@comcast.net](mailto:W3CMP@comcast.net). This is your column, and your comments, ideas, and reports are

welcome.

73, Chris Patterson W3CMP

*Ed Note: The report above is a small excerpt from Chris' "What's on Six" report for the UK Six Metre Group. See <http://www.uksmg.org/landing.php> for more information. Internet only membership in UKSMG is available worldwide for £10.00. Paypal works fine.*

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## ARES/RACES



As part of the SPARC commitment to emergency communications, the SPARC repeater system is maintained as available for linking with other area repeaters.

Lancaster County RACES VHF Net is held on the first Tuesday of the month at 2030 hours local time on the 145.310 MHz repeater in Rawlinsville.

The Lancaster County primary ARES/RACES repeater is on 145.310 MHz with minus offset and 118.8 PL.

Pennsylvania RACES HF Nets are held at 3993.5 kHz LSB on all Sundays except holidays.

The statewide net is on the first Sunday of the month at 0800 hours local time.

The Central Area (including Lancaster County) net is at 08:30 local time.

EPA NBEMS Net, Tuesday, 7:30pm local EST,  
3.5920mhz Mode: Olivia 8/500 1khz,  
Net Mgr: WA3WSJ@arrl.net

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## SPARC Nets

**SPARC holds nets every Tuesday at 2100**  
local time on 145.230 MHz minus offset and  
PL of 118.8. The **449.975MHz** repeater is  
linked to the 2m repeater for the net.

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### Club Officers

President Kevin Lampo – [K3LLC](#)  
Vice President Scott Lithgow – [KN3A](#)  
Secretary – Peg Hamm – [KB3SCA](#)  
Treasurer – David St. Pierre - [AB3VJ](#)  
Repeater Trustee - Dave Payne - [N3LOM](#)

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## 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>

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### 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.

**Morse Code Net** Tuesday, 2000 local time (8:00p). [SMRA](#) repeater 145.430- (67.0 Hz) with alternate frequency of 146.460+ (1,000 kHz offset, tone 67.0 Hz)

**Wednesday York County SSB Net** 7:45PM on 50.135MHz. Informal net getting started. Contact Steve Cruse, K3WHC, for more information.

Wednesday [Pottstown Area Amateur Radio Club](#) 8:30PM 50.130MHz Contact [Leonard, WV3P](#) for more information.

**Wednesday [Red Rose Repeater Association Net](#)** 8:30 PM on 147.015MHz. This is an experiment to see if net attendance improves by starting a half-hour earlier.

**Wednesday [OCWA 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, [KB3QAO](#)

For more information visit  
<http://www.n3tuq.com/repeater.aspx>

**NEW Times and days**

PACKRAT VHF/UHF 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  
Posted By: [egroups\\_n3sw](#) [egroups\\_n3sw](#)

Mon Aug 27, 2012 11:40 pm

<>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.

AA3RG Repeater. <http://www.aa3rg.org/>

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## 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/>

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## AUXILIARY COMMUNICATIONS HIGHLIGHTED AT PEMA CONFERENCE

In an effort to “spark” interest in the Pennsylvania Emergency Management Annual Conference I have elected to give our members this report on a most enjoyable and educational

experience. S.P.A.R.C was not well represented at the 2014 Pennsylvania Emergency Management Conference held at Seven Springs Pa.; however, Jerry Wilson and Phil Theis were among the hundreds of attendees who had an opportunity to network with Pennsylvania’s amateur and professional communications providers.

The forum which ran for 5 days was held at Seven Springs Pa. Despite the ski slopes not yet ready for use, the views of the property were breathtaking. For those who had time, there were summer outdoor activities that run when the snow is absent. Some of the slopes are converted to a slide. Nestled between farmland and standing pines, this is the largest skiing resort in Pennsylvania. After the three hour drive from Lancaster, participants were quite satisfied with the accommodations provided by PEMA.



Seven Springs Resort

I would imagine that some did not attend because of the presumed professional nature of the conference. Rest assured this conference was conducted in a professional manner; however, the amateur radio community was regarded as a full participant in the professional nature of emergency preparedness. The amateur community was treated with high

regard and relied upon to engage in many of the topics presented in the week. As a matter of fact many of the topics were spearheaded by amateurs.

The break-out sessions were centered around various topics to include, Social Media for Emergency Management, Mass Fatality Planning, Running Efficient NET Check-Ins, Rapid Needs Assessment, Amateur Radio Contesting, Amateur Radio use by the National Guard, FLDIGI Networks, Putting Together Effective Go Kits, High Speed Mobile Mesh Satellite Networks, Using Incident Command Forms during ARES/RACES/ACS activations, REACT and the 1977 Johnstown Flood, Issues in ACS/RACES, Recruitment & Retention, and Government & Non-Government Agencies Working Together, Norfolk Southern Railroad Challenges from Bakken Crude Oil, Hazardous Materials Response Teams (HMRT), Center for Domestic Preparedness (CDP) Program and Certification Updates, American Red Cross – Recovery Program, Pre-Disaster Recovery Planning, Pennsylvania Volunteer Organizations Active in Disasters (PaVOAD), Severe Weather and Flooding Preparedness, Missing and Exploited Children, West Virginia Chemical Spill, Vigilant Guard 2014 Update, Sandy Hook Incident, University of Pittsburgh Bomb Threats: Local-National Response Effort,

Public Switched Telephone Network (PSTN) 911 System. Non-English Speaking Populations in Disasters, Boston Marathon Bombing Incident, Severe Weather and Flooding Preparedness, Geologic Occurrences: Part I of II, Landslides and Sinkholes: Formation to Mitigation, Next Generation 9-1-1 GIS, PA Urban Search And Rescue Outdoor Training, Crime Scene & Mass Fatalities-Interagency Teamwork, Washington State

Mudslide Event, The Pennsylvania Helicopter Aquatic Rescue Team (PA-HART), Outdoor Event, Murrysville School Knife Incident Panel Discussion, Use of 3D Holographic Prints from 3D Models in Emergency Management Planning, Essentials of Community Cyber Security (ECCS) Part I of II, Homeland Security and Risk Vulnerability Assessment (RVAT), Using Technology to Support Disasters,

The theme of last year's conference was "*Building foundations and advancing partnerships for the future.*" Which is the focus of this article. The organizers of last year's conference accentuated their commitment to reach out to the amateur community to build this foundation. For those who have been involved in the past, the hospitality was equally appealing. There was no stone unturned in the preparation to this year's PEMA conference. From the accommodations to the exhibits, both indoor and outdoor, no person left Seven Springs without a greater knowledge of the services available, and technology advances.

It didn't matter if you were a newly licensed technician or a seasoned veteran of the airwaves, there was something there for you. Our hosts invited all that attended to peruse and take full advantage of the seminars spread over this property. It would be very difficult for anyone to leave the conference not to have educated themselves on a hearty dose of radio, emergency operations, or new technology. There was an exceptional effort made to make all that attended welcome to attend any session and to get involved in the discussions. Those of us who attended from the amateur community were treated to examples of some of the new digital radio gear. We also got a hands on demonstration of antennas, and microwave dishes for emergency communications.

Of special note was the care given to the coordination to many of the sessions by Susan Singer, (KB3KDC) the Auxiliary Communications Services (ACS) Program coordinator. Susan personally introduced many of the speakers and welcomed the audience to many of the sessions that involved amateurs. Her close attention to detail made sure that everyone's questions were answered, and that anyone who felt ill at ease was comforted with the knowledge that many of the sessions were geared for them. With the hustle and bustle of professional and volunteer fireman lugging their equipment around, and State Police, and National Guardsman, it would be easy to see how an amateur radio operator would feel intimidated. One of the goals of the conference was enhancement through technology. This combined with a movement towards interoperability was stressed by Singer. It was through her insistence that many of the demonstrators of new technology made an appearance. Susan has her General Amateur license and is working on her Extra.



Maureen Will

One of the most heartfelt sessions I attended was that of the communications supervisor from the Sandy Hook Emergency Dispatch Center. Her name was Maureen Will, and her story was compelling. This emotionally charged session, enhanced with a power-point

presentation left hardly a dry eye in the room as she described the days and months following this horrific shooting. Maureen had a personal relationship with many of the 20 students and 6 teachers who were killed that day. Her description of the Comm. room on that frightful morning will linger with those who attended for a long time.

As an attendee to many of the sessions, I felt comfortable questioning many of the presenters and they assured many of us that our particular talents were not overlooked in the grand scheme of things. We had a presentation from the California wildfire coordinator who detailed the idiosyncrasies involved with managing volunteers at a major fire scene. He did emphasize the invaluable resource that they were in providing emergency communications over a wide area. These volunteers freed up valuable resources to actually engage the fire.

One of the sessions I attended came with a certification presented by the Federal Emergency Management Agency (FEMA). This course was entitled "Social Media for Emergency Management" which included the creation of a Twitter Page, and a Face Book Page, (Something I said that I would never do). It was a good course and it came with a nice certificate and a class photo with the Pennsylvania director.

Search and rescue operations were performed in the parking areas and other outdoor venues. Here one could view the intense professionalism of the professionals who practiced their craft with precision. One felt a great deal of appreciation for the commitment Pennsylvania has invested in the safety of all of us.

I feel compelled to tell all of my amateur compatriots that if you have an interest in emergency communications, and want to get involved with your local ACS program, please seek out attendance to next year's conference. This was one of the most hospitable gestures I have seen state government sponsor. This melding of forces under one roof is a true testament to what government should be doing. None of this can be possible unless there is a true and genuine commitment by government to arm citizens with the knowledge necessary to fully participate in life saving operations. Pennsylvania should be commended for its outreach to the volunteer community. Here we can truly form partnerships that have a true meaning. Only through these training scenarios can we volunteers comprehend the magnitude of disaster training and emergency management. It is equally true that the professional emergency response community can appreciate the commitment of volunteers.

This years PEMA conference will be held August 27th. to September 2nd, 2015. One of the enjoyable things about last year's conference was this gesture of appreciation by the Commonwealth, in that all lodging and meals were provided free to the attendee. Additionally there were reams of printed material freely distributed to the ranks to be shared with your home clubs and organizations. S.P.A.R.C was treated with the delivery of a fine manual put together by the state. It not only gives a good explanation of the Auxiliary Communication Service (ACS), but of the various resources for the volunteers who serve it.

73, Jerry Wilson, KB3GNB

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## Digital Records Archiving

Seems that everyone is on a mission to digitize data for archival storage from the [Dead Sea Scrolls](#) to SPARC records. It is not difficult to understand why. Save space and reduce the possibility of loss of valuable information. Everyone knows the disaster caused by the burning of the Ancient Library of Alexandria.

Ref. Wikipedia "Possible occasions for the partial or complete destruction of the Library of Alexandria include a fire set by [Julius Caesar](#) in 48 BC, an attack by [Aurelian](#) in the AD 270s, and the decree of [Coptic Pope Theophilus](#) in AD 391." Why the fear of history?

The Library of Congress is a leader in setting standards for digital data preservation. You can download their recommended file formats from <http://www.loc.gov/preservation/resources/rfs/rfs20142015.pdf>

Long term storage of CDs and DVDs requires a heated and air conditioned environment. They don't tolerate high humidity well. Fortunately, thumb drive prices are falling fast. I recently purchased a high speed Lexar USB 3.0 128GB thumb drive on a Staples "Hot Deal" for about 50cents/GB. The regular price is \$125.

It works on my Windows XP computer without any problems. Probably isn't really making the speeds claimed, but it is the fastest thumb drive I have ever used.

San Disk is also selling Ultra USB 3.0 drives at competitive prices.

Caveat emptor: Shopping at Staples requires a watchful eye. The "Hot Deal" sign may remain when the special sale ends.

Does anybody know how long a thumb drive stored in a bank safe deposit box can be expected to retain data?

## Digital Access to a Sky Century @ Harvard

### *DASCH*

“There are over 500,000 glass photographic plates in the Harvard Plate stacks, exposed in both the northern and southern hemispheres between 1885 and 1993. This 100 year coverage is a unique resource for studying temporal variations in the universe.”

See <http://dasch.rc.fas.harvard.edu/status.php> for further information.

I didn't know photography was good enough in 1885 to produce such high resolution photographs. They should scan their 100,000<sup>th</sup> plate by the time you read this report.

Now I need to finish converting VHS tapes to DVD for Floyd Jury.

73, George W3FEY

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## WORLD TIME

Time-keeping is so critical to the functioning of modern societies that it is coordinated at an international level. The basis for scientific time is a continuous count of seconds based on atomic clocks around the world, known as the International Atomic Time (TAI). Other scientific time standards include Terrestrial Time and Barycentric Dynamical Time.

Coordinated Universal Time (UTC) is the basis for modern civil time. Since 1 January 1972, it has been defined to follow TAI with an exact offset of an integer number of seconds, changing only when a leap second is added to keep clock time synchronized with the rotation of the Earth. In TAI and UTC systems, the

duration of a second is constant, as it is defined by the unchanging transition period of the Caesium atom.

Greenwich Mean Time (GMT) is an older standard, adopted starting with British railways in 1847. Using telescopes instead of atomic clocks, GMT was calibrated to the mean solar time at the Royal Observatory, Greenwich in the UK. Universal Time (UT) is the modern term for the international telescope-based system, adopted to replace "Greenwich Mean Time" in 1928 by the International Astronomical Union. Observations at the Greenwich Observatory itself ceased in 1954, though the location is still used as the basis for the coordinate system. Because the rotational period of Earth is not perfectly constant, the duration of a second would vary if calibrated to a telescope based standard like GMT or UT—in which a second was defined as a fraction of a day or year. The terms "GMT" and "Greenwich Mean Time" are sometimes used informally to refer to UT or UTC.

The Global Positioning System also broadcasts a very precise time signal worldwide, along with instructions for converting GPS time to UTC.

Earth is split up into a number of time zones. Most time zones are exactly one hour apart, and by convention compute their local time as an offset from UTC or GMT. In many locations these offsets vary twice yearly due to daylight saving time transitions.

### **Sidereal Time**

Sidereal time is the measurement of time relative to a distant star (instead of solar time that is relative to the sun). It is used in astronomy to predict when a star will be overhead. Due to the orbit of the earth around the sun a sidereal day is 4 minutes (1/366th) less than a solar day.

## Chronology

Another form of time measurement consists of studying the past. Events in the past can be ordered in a sequence (creating a chronology), and can be put into chronological groups (periodization). One of the most important systems of periodization is the geologic time scale, which is a system of periodizing the events that shaped the Earth and its life.

Chronology, periodization, and interpretation of the past are together known as *the* study of history.

### Time-like Concepts: Terminology

The term "time" is generally used for many close but different concepts. Speaking exactly, one should distinguish at least between:

- instant as an object - one point on the time axes. Being an object, it has no value;
- time interval as an object - part of the time axes limited by two instants. Being an object, it has no value;

- date as a quantity characterizing time instant. Being a quantity, it has value, say, 2014-04-26T09:42:36,75 in the ISO standard form, or today, 9:42 a.m. in a colloquial form;

- duration as a one of quantities characterizing time interval. Being a quantity, it has value, say, 15 minutes. Other quantities describing a time interval are e.g. dates of its' begin and end.

From this point of view, the term "time" can be used either as a shorthand or in a general sense. Nevertheless, in an exact text as in definitions, proper terms should be chosen.

73, Bob Reiser, AA1M

Reprinted from the March 2015 issue of the [QUANNAPOWITT RADIO ASSOCIATION](#) news letter. To be continued.