

# 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"*

Website: WWW. K3IR.org

Email address: k3ir@arrl.net

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)

## October 2015

### President's Message

We are a group of Social Communicators

Nowhere in our modern society are better forged the bonds of civility like a multi station contest. In October we men and women of Pennsylvania cover the counties for the PA QSO party. This year like the past three SPARC operated from the club site in a multi-rig setup. At one point we had 6 rigs running in our new operating building.

We ran on as many as 4 bands at a time, and were able to double up on 20 and 40 meters. Accomplishing this feat took plenty of considerations for the others in the room. As many of you know our building is foil lined. This is great for keeping the RF outside the building out, but it also keeps the RF inside the building in. Often times we would stumble on third harmonics when a usable 15 meters would be wiped clean by 40M CW, or when 3 sets of ears would get blasted by the fourth banging out K3IR in Morse Code.

There were SSB, and CW ops working side by side. This too took some considerations. Keeping mic gains up and voices down ensured the audio in the room was within acceptable levels.

The bands did not always cooperate, the 10 and 15 meter bands were less than ideal, but we worked through the pain. We also worked through the laughter, enjoying the bonds, the

stories and ridicule what 12 hours in a shed can do to ones mental faculties.

Overall we accomplished several key goals. Did I mention two 40 meter rigs running at the same time. Took some communication, and it is definitely not a total isolation, but this is an important arrow in the quiver of communications at our humble site.

We reached new heights in the contest pulling in 1003 contacts and 194,780 points resetting the county low power record. It is those 39 sweet PSK contacts that really made the difference!

Most importantly we reached a clean sweep of all 67 counties thank you to an early morning text Scott sent to his buddy Pete who drove two hours to make the weekend of many contesters desperate for Bedford County.

Table of Contents	
President's Message	Page 1
Coming Events	Page 2
Editor's Notes	Page 2
Six Metre DX Report	Page 3
ARES/RACES Information	Page 9
SPARC Officers, Nets, Etc.	Page 9
Documenting Your Shack	Page 12
EIMAC Moonbounce Notes on Line	Page 13
Appendix Six Meter Large Charts	Page 14

Huge thank you to Jonathan Charles, Mike D, Dale Long, Scott Lithgow, Harry Bauder, and Jake Lauser for coming out and working to hang antennas, setup rigs, and make the Pizza run!.

It is the simple executions to challenging tasks that make complicated scenarios solvable. More important than the fact that we work together is how we work together. The more we get out of our shacks of solitude and into the shack of RF mayhem the better. Nowhere is there a better test of operator and human than in the Community Shack of a multi-rig operation

Your President

Kevin Lampo, K3LLC

P.S. We also had 2 chances to hear Fox 1A pass overhead. She is loud and running only 3 days post launch. Grab your handheld and start hacking up a tape measure, it is definitely a fun experience to hear voices from blue sky.

---

## Coming Events

**Thursday, 22 October 2015.** 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](#), Tenth and Manor Streets, Columbia about 5:00PM. Volunteers needed. SPARC membership is NOT a requirement. Contact Dave Payne, [N3LOM](#), for details. This is an HT simplex event. Program your HT for 147.470MHz FM simplex. You will need a flashlight and clipboard

**Tuesday 27 October 2015 7:00PM** at the SPARC Club site 1715 Breneman Road, Rapho Twp. Manheim P.O. 17545 for GPS) The meeting topic will be CW computer interfacing by Mike Daskalopoulos, KJ6MIC.

New building update from Tom Hartranft: One new door is installed in the new building. My

thanks go out to Larry, Peg, and my family for their help.

### 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](#), for more details. Everyone interested in Amateur Radio is invited to attend. See <http://guskeystone.com/> for restaurant details.

---

## Editor's Notes

Last month I mentioned the subject of information overload. This is clearly an information age with most people using computers and cell phones in their various forms to search for information on the Internet. For example, at the SPARC meeting at the F&M Grundy Observatory, the question of communications to the German telescope mount manufacturer who made the mount for the F&M classic refractor in the late 1800s came up.

How long did it take to get messages to Europe in the late 1800s? I thought that the first under sea cables to Europe were installed by that time so I asked Jerry Wilson to search the Internet for the answer. It didn't take Jerry long to get the answer. "The first communications occurred August 16, 1858, reducing the communication time between [North America](#) and [Europe](#) from ten days – the time it took to deliver a message by ship – to a matter of minutes." [See Wikipedia](#)

You can never have too many backups. My primary computer crashed with a loss of much of the information on the hard drive. Dave Nonnemacher salvaged as much as he could, but my email files were a total loss. Restoring my email contacts was a slow and painful job. There are still addresses to be found.

In the past, I made annual backups of data files to my standalone terabyte drive. In the future, it will be much more frequent. Email contacts are exported after every update.

Are there any Northeastern University grads out there interested in [WIKBN](#) support? Please contact me for more info. Many University Radio Clubs are struggling and need alumni support.

Millersville University is a notable exception as reported last month.

W3QDB	Lowell D. Pahl, 448 "C" Street, Carlisle, Pa.
W3QDC	Millersville State Teachers College Radio Association, Lynford H. Rowland Jr., Trustee, Millersville, Pa.
W3QDD	Chester C. Pearson, RFD, Darlington, Md.

1951 Callbook entry

Note that in 1951 Millersville was not yet a university.

F&M once had the call W3RDK. Does anyone have an early 1960s Callbook to check for the W3RDK listing? The license was reported by Elra Manning, W3IYF, who collected information on all the Radio Amateurs in Lancaster County circa 1960.

73,

George, W3FEY

---

## Six Metre DX Report

19 October 2015

### Opening Remarks

Hello again from the chilly and wet eastern USA. It's 2<sup>nd</sup> October as I begin to write this column, and I'm in the midst of picking apples and making cider. Hurricane Joaquin has turned northeast and will miss this area, but I suspect its remnants may impact the UK in a few days. My orchard hobby has not interfered

with any six metre operation; there has been virtually nothing in the way of propagation around here for the last month. Although there were some interesting trans-Atlantic openings in late July and even into August they seem like a dim memory.

In August, I had the opportunity to return to England for the UKSMG annual meeting and G3WOS BBQ. My wife and twin daughters had been in Spain the preceding week; we met at Heathrow on the Monday before the events. Normally I would call this a vacation, but there was very little time for relaxation. We tried to take in as many of the sights as we could in the week's time we had in England.

We spent two days exploring London. On Tuesday, after a ride into Piccadilly Circus on the tube, we took the obligatory double decker bus and river tour. We walked around the Houses of Parliament, and visited Westminster Abbey and other nearby sites. The next day we again used the tube to go to the British Museum. I could have spent several days in the Museum looking in all of the nooks and crannies, but had to accommodate the ladies.

On Thursday we rented a car and headed to Stonehenge, Avebury Circle and West Kennett Long Barrow. Driving on the wrong side of the road while sitting on the wrong side of a car with a gear shift on the wrong side with three commentators in the car made driving memorable. Friday was Dad's day and we headed to the Portsmouth Naval Yard. Seeing HMS Victory, the Mary Rose and HMS Warrior brought home how difficult and dangerous naval service really was. The remarkably well-preserved Warrior and Victory were outstanding examples of 18<sup>th</sup> and 19<sup>th</sup> century state of the art naval engineering. The nearby Spinnaker Tower and kept the ladies in check.

Friday evening I met many of the attendees at the Falcon in Farnborough. It was great to see

old friends and make new ones. We walked to a nearby Chinese restaurant where we enjoyed a fine meal. Saturday morning I dropped the ladies off at the train station so they could spend another day in London and then headed to home of Chris G3WOS for the AGM and BBQ. For me the highlight of the AGM was presentation of the Jersey trophy to Sergio Silvio, IK0FTA, representing the Italian DXpedition Group, for its service to six metres in mounting DXpeditions to rare locations. Sergio also received RSGB's Harold Rose Trophy for his effort with SixItalia and his services to six metres. Both awards are well deserved.



Sergio IK0FTA receiving the Jersey Trophy from Chris G4IFX.

As the attendee closest to Julio NP3CW, winner of the single operator category of the UKSMG Summer contest, I accepted the Richardson Cup on his behalf.



W3CMP receiving Richardson Cup on behalf of Julio NP3CW.

The BBQ followed immediately after the AGM. Jim Kennedy KH6/K6MIO, our solar expert and regular contributor to this column, updated us on Cycle 24 via Skype from Hawaii. Sergio IK0FTA and Paul ZS6NK made fine presentations on DXpeditions to 5Z and Z21. Bo OZ1DJJ recounted his six metre operation from Greenland. Justin G0KSC discussed 4<sup>th</sup> generation SDR variants, and Graham G3TCT described his experience with polarization diversity. We enjoyed a great BBQ meal courtesy of Chris and his family. The day was thoroughly enjoyable, and I recommend the BBQ to everyone.

Sunday we travelled to Bath and walked through the Roman baths and abbey. The sense of history was overwhelming. Monday we drove from Farnborough to Heathrow and headed home. The trip and travel was too short; I look forward to returning in two years.

In mid-September Dick K5AND and Jimmy W6JKV hosted their annual BBQ. This too is a “must do” for every serious six metre operator. Many hams whose names and calls are familiar attended; below are pictures of a few of them:



Ted HI3TEJ, Jack OA4TT/N6XQ and Rafa XE2OR.



Kennedy KH6/K6MIO, Arliss W7XU, Holly N0QJM and Johan ON4IQ.

In this issue there are a number of reports bearing witness to the declining solar conditions and lack of propagation. Despite the declining conditions, there have been some notable achievements. Both Larry Lambert N0LL and Lance Collister W7GJ recently worked grid 488 to earn the Fred Fish Memorial award; more details appear in the column. They join five other individuals as winners of the award. Lance has also reported on his V6M EME DXpedition, and a review of the summer time PJ5A DXpedition has been submitted by Terry K4RX and Dick K5AND. In the last column I mistakenly referred to HA5JI as HA5KI, and listed Gyuri’s grid

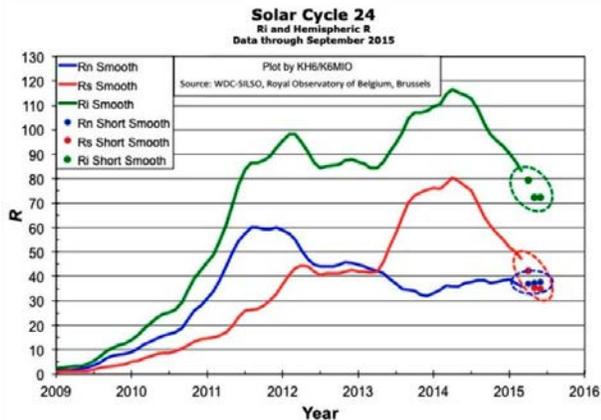
locator as JN79 instead of JN97. Sorry about that; I can only attribute the errors to tired eyes.

I want to recognize Trev G3ZYY and Kerry G8VR, who have agreed to sponsor memberships for PY2BN and CO8DM. Both stations expressed interest in the UKSMG but could not afford to join. What a great idea to increase interest in the UKSMG and activity on the band.

Despite the overall poor conditions, there is still life on the band. Enjoy.

### **October 2015 Solar Report to Six News KH6/K6MIO 10/01/15-Solar Cycle 24**

The current Cycle 24 continues to move downward as one would expect at this point. The trends shown in Figure 1 continue their individual patterns. The solar northern hemisphere continues its oddly constant values in the 35 to 38 range, using the Royal Observatory of Belgium’s Rn sunspot index. On the other hand, the southern solar hemisphere Rs index continues to decline, as expected – except for the fact that it is doing so more than two years “late”. This all leads to the current values of the total Solar index, Ri, now approaching 70, with ongoing decreases expected.



Solar sunspot activity for northern (Rn) and southern (Rs) solar hemispheres, and total index (Ri).

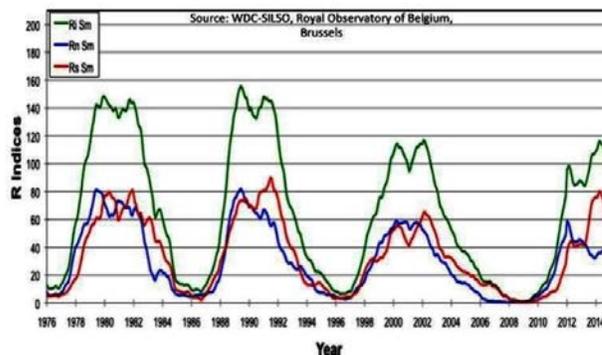
Historically, there is an increase in solar flare activity during this declining phase of the cycle, and this has been the case recently. These, and related outbursts, such as coronal mass ejections and magnetic storms, can lead to brief episodes of F region propagation, and of course, E region auroral propagation. On the downside, during some phases of these events, they can also produce significant damage to whatever propagation may have been present just before. The key is to be alert and take advantage of whatever “good” comes along.

### Solar Cycle 25

As noted here in some previous reports in the solar physics world, as early as 2006 there were predictions that Cycle 25 would be a very weak. Some of these predictions were based on observed weakening of the sunspot core magnetic fields. In general, the obvious phase shift between the northern and southern hemispheres, seen clearly in Figure 1, has caused the current Cycle 24 to be rather weak, if only because the two hemispheres didn't peak at the *same time*.

This phase issue is clearly a factor in the weakening of the cycle. Moreover, it is clear that the phase has been moving around from cycle to cycle. Figure 2 shows Cycle 24 and the three previous cycles back to 1976. All these cycles show some degree of phase shift

between the northern and southern solar hemispheres. What should be noted is the *progressive* shift that started about the beginning of 1999, in the rising phase of Cycle 23, and how that shift has continued to grow until the present.



Phase shift between northern and southern solar hemispheres sunspot activity during current and past three solar cycles.

(Full size charts at the end of this newsletter)

Late last year, a team based in the UK published a paper that proposes that the north-south phase shift is caused by the component of the solar magnetic field that is aligned with the Sun's poles.<sup>1</sup> They propose that the changes arise from a *two-layer* magnetic scheme in the solar interior. They suggest that a part of the polar field arises from a region deep in the Sun, and another part arises from a shell in the interior somewhat above the first region. They say that the phase shift arises because it is the lower and higher magnetic regions, which shift back and forth with respect to each other over time.

Using this hypothesis, they looked at the northern and southern polar fields of the Sun over Cycles 21-23 and derived certain measurable factors. Then they used a novel scheme to create a model that accurately reproduced the activity behavior of Cycles 21-23 (something called “hindcasting”). Then they used the same approach to forecast the current Cycle 24, and Cycles 25 and 26. They concluded that Cycle 25 and 26 would be very weak.

This forecast is generally consistent with many other workers' forecasts produced by other approaches. It will be interesting to see if the "two-layer" dynamo they suggest can be substantiated. There seems to be a general consensus that we may be looking forward to two or perhaps three cycles of depressed activity (Cycles 25-26 or 25-27). This would be equivalent to the so-called Dalton Minimum, which occurred between 1800 and about 1830. This was not a complete black out. There were clearly observable cycles, but the smoothed maxima were generally in the 50-75 range.

The general sense seems to be that it would not be something like the 80+ years of the Maunder Minimum, from about 1650 to 1730. During this historical period, there were some cycles with maxima at 10 or less.

#### **Impact on F Region Propagation**

On average, a Dalton-like cycle would have a negative impact on F region MUF, which would be felt even in the high and middle reaches of the HF spectrum. Of course, we all have had experience with low solar activity; it happens every cycle.

#### **Impact on Es**

The good news is that there is very strong evidence that indicates that none of this will have any observable effect on Es. Many solar cycles of professional Es observations show that, if anything, low solar activity actually makes a very slight improvement in Es. As we currently understand it, the mechanics of Es generation is significantly different than that of the F region, with little dependence on the state of solar activity.

There will be plenty of exciting Es opportunities.

73, Jim

<sup>1</sup> Shepherd, S., Zharkov, S, and Zharkova, V., 2014, *Prediction of Solar Activity from Solar*

*Background Magnetic Field Variations in Cycles 21-23, Astro. Phys, J, 795, 46.*

#### **North America**

K1TOL (Lefty reports from FN44VG)

Chris:

Ha! Six metres was a total fiasco all summer from here. Worked no new grids and no new DXCC.

Only redeeming features were the two KL7 openings via Auroral Es. Nobody else worked them, hmmm.

Not a single peep from deep South America or Africa since June.

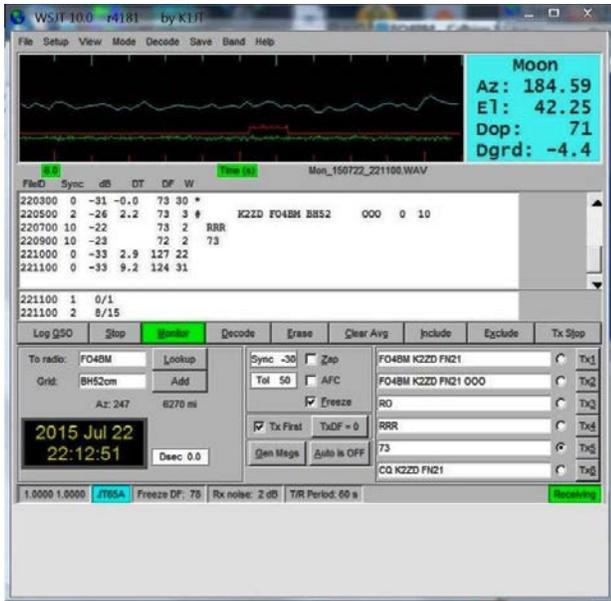
It has been the pits all year so far.

Lefty

K2ZD (Mario reports from FN21NR)

Hi Chris,

I completed a six metre JT65A EME QSO with FO4BM on 22<sup>nd</sup> July at 22.09z. Philippe was running a single seven element yagi and one kilowatt. This was my DXCC country number 190 on six metres. Attached is the screen shot of that QSO. This was the shortest period of time that Philippe has completed a six metre EME JT65A QSO.



Screen shot of QSO between K2ZD and FO4BM.

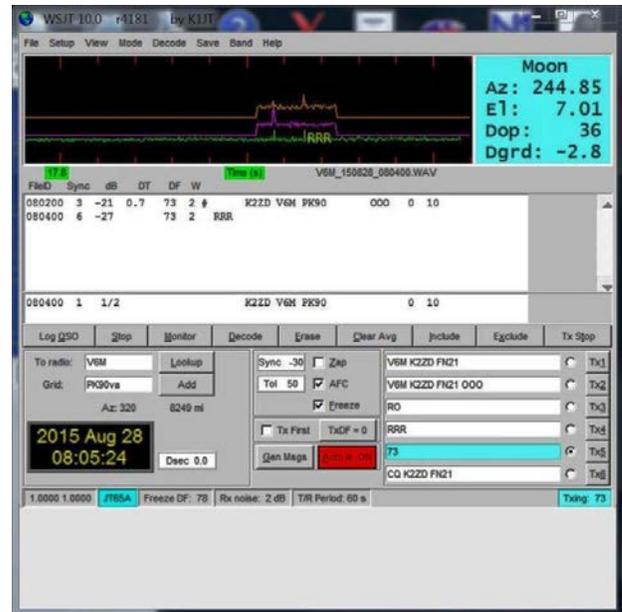
My station is 4 x 6M7JHV yagis in an H frame with full elevation, a Yaesu FTdx-5000MP and an Alpha 8406 amplifier.

73 and good DX,  
Mario K2ZD

On 28<sup>th</sup> August Mario added:

Hi Chris,

Hope all is well. On 28<sup>th</sup> August, 2015 at 08.04z I completed a 6M JT65A EME QSO with V6M on the island of Yap, the Federated States of Micronesia. Lance's best signal here was -21db. I have attached a screen shot of the QSO. This was my DXCC #191 on six metres.



Screen shot of V6M-K2ZD QSO.

Mario K2ZD

W7GJ (Lance reports from DN27UB)

Most of my activity at the end of June and early July was related to Es. I worked hundreds of stations from high elevations in rare grids DN34 and DN24. Full reports and photos are on my [website](#). In August, before I left for V6M, I worked VK4WTN and G5WQ on six metre EME. After I returned home in September, I worked UW1HM, DU1GM, UR5LAK, UX0FF and S59A.

Of course, in August I also operated as V6M and worked 42 stations in 20 DXCC on six metres despite a curtailed operation due to equipment failure.

The most exciting six metre EME contact I had in September was completing with KB3SII in FN67AA just as the full, eclipsed moon came over the mountain to my east. It was my birthday, too. KB3SII and K1WHS traveled up to FN67 northeastern main with a K3, 6M-1000 amp and 6M8GJ yagi to activate that rare grid on meteors and EME. That contact was the final grid I needed for the

[ARRL FFMA](#) award. So now during the summer, I can concentrate on either activating rare grids or rare DXCC.

73, Lance

### Parting Remarks

That's about all there is for now. I hope to hear from you all in 2016. There are still lots of apples to pick and cider to make. I will be keenly interested to learn what new toys members receive or get themselves for Christmas. In the meantime, keep your eye on the band.

I want to thank the following: DL8YH, DU1EV, DU7/PA0HIP, E51WL, EI7BMB, EI7IX, G3YPE, G8BCG, G8VR, G0JHC, GD0TEP, HA0DU, IK0FJA, K1TOL, K2ZD, K4RX, K5AND, K5QE, K6IJ, K6QXY, K7CW, NP3CW, NZ3M, PJ4NX, *SixItalia Weekly*, V51JJ, VK4CZ, VK4MA, VK8AW, W7GJ, YS1AG, ZD7VC, ZL3NW, ZL4AX, ZS6NK, *CQ Six50MHZ DX News*.

Some recent appearances in court before some less than interested judges has brought the following to mind: "All in all I'd rather have been a judge than a miner. And what's more, being a miner, as soon as you are too old and tired and sick and stupid to do the job properly, you have to go. Well, the very opposite applies with judges" - Peter Cook.

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 and ideas make it what it is. I welcome all reports.

73,  
Chris, 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.*

---

## 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

---

## 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.

---

### 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](#)

---

### Membership Info Update Request

Please send all changes of address, email, and ham status to me for the MDB to Gerry Wagner at 1309 Willow Creek Drive, Mount Joy, PA 17552 or [Gerry.Wagner@ComCast.Net](mailto:Gerry.Wagner@ComCast.Net), Cell=717-344-1427,

Home Phone=717-653-0659 (Fax Opt); Skype  
Thanks Gerry Wagner KB3SSZ

---

### 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 NET is for practicing Digital Communications

NCS: Dick Goodman WA3USG  
backup NCS: Jack Dellinger KC3JD or whoever starts the net.

HF NET is cancelled until time changes in the fall (Nov 1st)

The hiatus is complete. Regular weekly Digital nets are back in session

**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.

### Schedule Change

**Wednesday [Red Rose Repeater Association Net](#)** 9:00 PM on 147.015MHz. The Red Rose meeting has now shifted back to the 9PM or 2100 hours. Seems it fit with more people's schedule.

**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 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/>

---

## 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/>

---

## Documenting your Shack???

This is the first of what will be at least two articles on this subject.

Why the @\$%^ should I bother? You are saying “I know what I did when I put my equipment together!” Also, what you are asking me to do is a pain in the neck, and a tedious nuisance. Permit me to ask just one simple question. How many times have you put something important or valuable in totally safe and secure place only to forget where that place was within a day or two? Yeah, I do that too! Then I spend an inordinate amount of time searching for that secure and safe place. The same fate will inevitably befall your Ham Shack. You will do a very neat and orderly job of wiring and interconnection only to be overcome by a blank stare when you go to install something new or reconfigure your existing equipment. You will pick up a cable that is not connected to anything and look at it wondering what piece of equipment the other somewhat hidden end is connected to. Solving this situation is what this series of articles is all about.

There are many products on the market to help you with this process, but there is no amount of money and there are no programs that can substitute for good planning and thorough record keeping. You may well be tempted to adopt the attitude of building it first and then documenting what you did. Please believe me when I tell you this is the hardest way to put together a well-documented plant. You will spend an inordinate amount of time trying to go

back over what you did and committing it to paper as well as identifying and labeling cables you have installed.

The far better solution is to follow this process:  
Design it

Draw it (assigning cable numbers as you go through the drawing process).

Make the cables affixing the correct number to each end of the cable before you install it.

Test each cable before you install it.

Then assemble in accord with your design and drawing.

Finish up by updating your drawing to reflect the “As Built” installation. Yes, the best laid plans... do still result in some last minute changes, but these changes do NEED to be put onto your drawings.

Your Shack does NOT need to be on a single drawing! You can break it up into logical segments that make sense for your facility. An example might be a drawing of AC Power, another for DC Power, another for Audio, another for RF, and so on.

You may be inclined to say, “Well, I’ll just use colored tape to signify various cable functions”. That is seriously flawed since you will likely have multiple wires in each category. Say you use Green for Ground, Black for DC Negative, Red for DC Positive, White for AC, Red for RF, Yellow for Audio, and so on. Think about how many wires you can have in each category. A little scary, isn’t it?

In my next article we will address preventing the usual explosion at the pasta factory.  
Rich Kaelberer – AB3RK (CVE)

---

## Eimac Moonbounce Notes On Line

By Phil Karn, KA9Q

Way back in 1980 when I first got interested in amateur satellites and AMSAT, I wrote off to Eimac Corporation for their "Moonbounce Notes" collection.

While on a household paper eradication campaign I came across them and scanned them. I thought others might enjoy a look back at some bleeding-edge ham activities from the mid-late 1970s. It's particularly amusing to see how much effort was spent just tracking the moon with the technology then available.

<http://www.ka9q.net/moonbounce-notes>

This is a raw collection of pdf files, but the file names are pretty descriptive. Collect the entire set!

If anybody has any notes missing from my collection, please let me know.

Phil

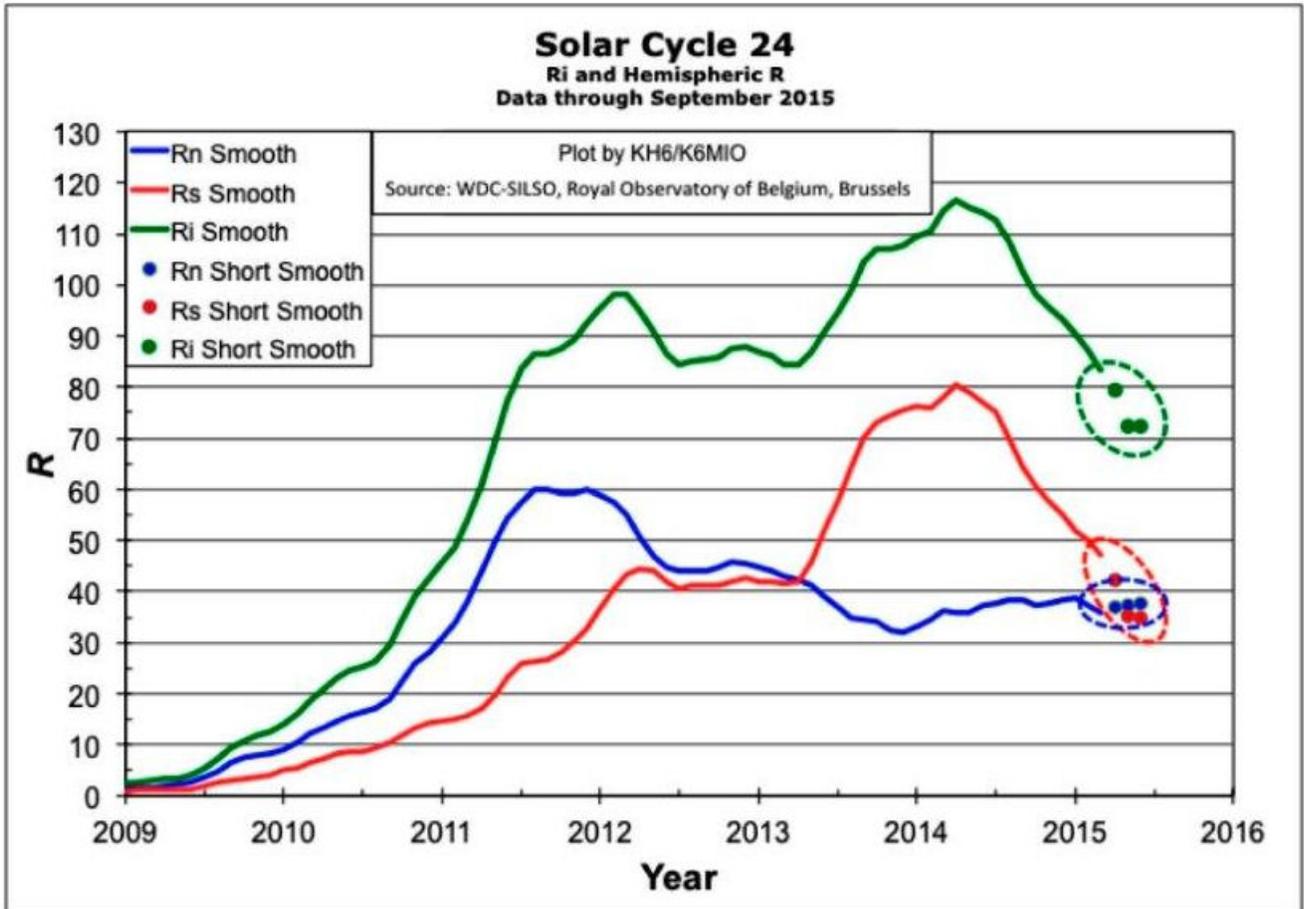
P.S. After I posted that set, I did a Google search and found PA3CSG's site here

<http://pa3csg.hoeplakee.nl/joomla25/index.php/old-stuff/71-the-eimac-eme-notes>

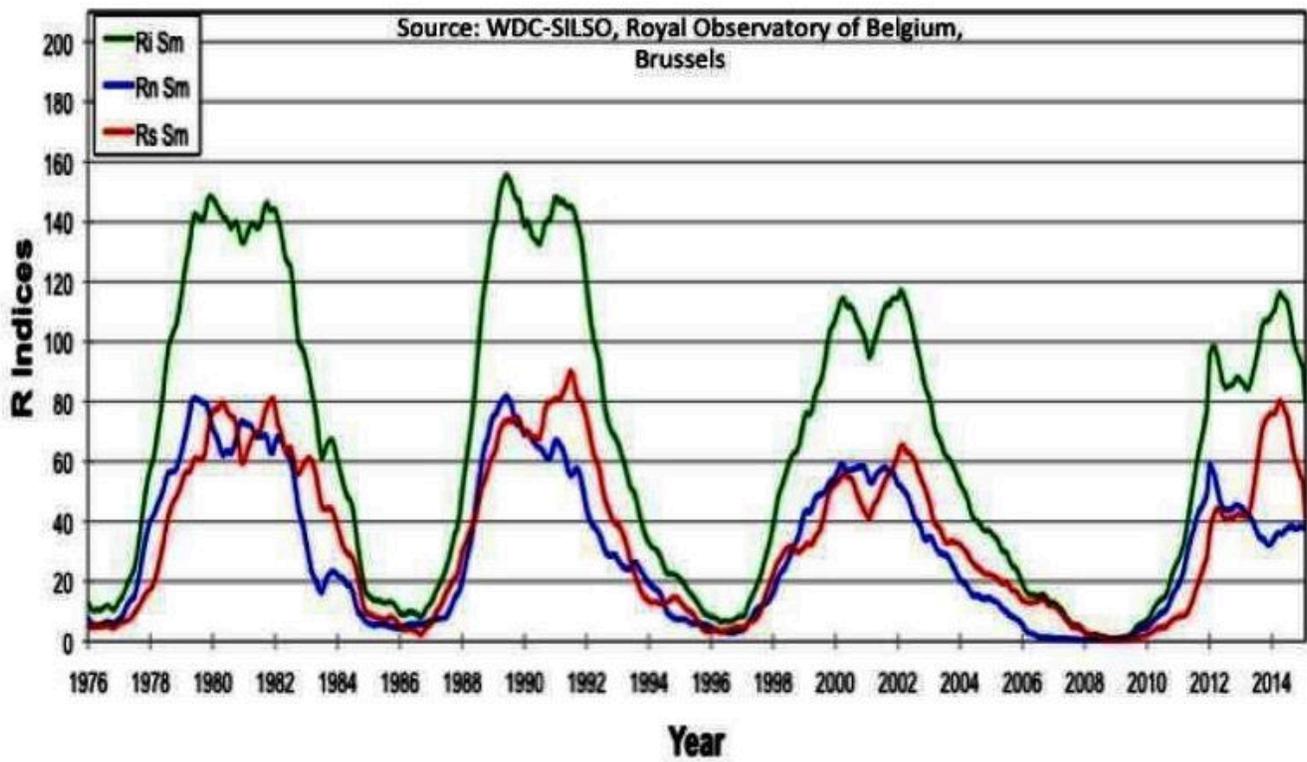
He had all the notes I did except for #36. Oh well. I will probably merge the better quality scans from our two collections.

---

Large size propagation charts for the Six Metre Report next page.



Solar sunspot activity for northern (Rn) and southern (Rs) solar hemispheres, and total index (Ri).



Phase shift between northern and southern solar hemispheres sunspot activity during current and past three solar cycles.