

QRZ NEWS

A MONTHLY PUBLICATION OF
SOUTHERN PENNSYLVANIA AMATEUR RADIO CLUB, INC
PO BOX 1033 - LANCASTER, PA 17608-1033

(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

June 2010

President's Message

Harry Bauder is on an assignment in Internet neverland and unable to deliver his usual inspiration.

The June meeting will be almost entirely about Field Day. We need to make final plans and assignments to get things ready Saturday.

My daughter has volunteered to help with the food again this year. She needs to know how many people are going to show up so we do not over or under facilitate.

The work party last Saturday was not well attended. Personally, I sprained an ankle and was unable to attend. Important work was accomplished by those present.

There are members who live with antenna restrictions or in poor VHF/UHF locations who would like to operate from the site. The May talk on 6m operation by W3CMP inspired several members to give 6m a try.

Most modern HF transceivers include 6m coverage. When Es gets really good, almost any antenna you can load will make some contacts for you. A 6m dipole is not much of a project to build so why not? A TV rotator is sufficient for a 6m dipole.

We want to renew the 6m halo antenna at the top of the big tower so it can be used from the operating building. I want to help with the project, but only from the ground. My tower climbing is very limited.

Erecting a mast for a rotatable 2m antenna is also being discussed. If all the work is left to the same few people, the projects will be long in coming to fruition. Your ideas and help are requested. Members are welcome to attend the Board of Directors meeting on the second Tuesday of the month to discuss these topics.

73, George W3FEY

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**MINUTES OF THE May 2010
MEETING OF THE
SOUTHERN PENNSYLVANIA
AMATEUR RADIO CLUB
(SPARC)**

Held Tuesday, May 25, 2010 at 7 PM at the
Rapho Township Municipal Building

The following members and guests were
present:

Dave Payne, N3LOM
Paul Herr, KD8WY
George Gadbois, W3FEY
Jerry Wilson, KB3GNB
Ted Freedman, K3KSA
Dave Sarraf, N3NDJ
Chris Patterson, W3CMP
Dick Hess, KB3LOJ
Steve Hass, KB3SJU
Mike Warner, N3XPD
Jim Silvius, KW3E
Brian Miller, AB3HN
Gerry Wagner, KB3SSJ
Mike Zelinsky, WB3CUC
Dan Millgan, KA3KHR

The meeting was called to order at 7:05 PM
by George Gadbois, with a round robin
introduction by name and call.

The meeting began with a technical session
conducted by Chris Patterson. Chris is an
avid 2- and 6- meter DXer. He discussed
several recent DXpeditions, the 6- meter
beacon project, and propagation in general.
It was an informative and useful talk, with
many questions from the audience and
answers from Chris. He directed us to the
ON4SKT chat page for more detailed info,
including beacon maps and sporadic-E
openings. He plans to return in a few
months with pictures from his recent
DXpeditions. *Ed Note Scheduled for July*

The technical session was followed by a
short business meeting. Topics included

- The minutes from the prior membership meeting were read, including details of the proposed amendments to the club Bylaws. On a motion by Mike Warner and a second by Gerry Wagner, the minutes were approved as read.
- Ted presented the Treasurer's report, which was current as of 30 April 2010. On a motion by Paul Herr and a second by Dave Sarraf it was approved as read pending review by the audit committee.
- Paper pickup was discussed. Dave is still hauling paper and getting an acceptable price. Members can drop what they collect either at Dave's house or at the collection box at the repeater site.
- George discussed the reason for the amendments to the bylaws. He explained that the only real change is to remove the requirement to meet on a particular day. We still will continue to have monthly membership meetings and monthly BOD meetings. He further added that BOD meetings are open for attendance by all SPARC members; they just cannot vote at BOD meetings. On a motion by Dave Payne and a second by Dan Milligan, the amendments were approved following their second reading.

New Business

- Steve Hass noted that he received a notice from the ARRL regarding changing reporting requirements for 501(c)(3) entities. Ted stated that this has been done; Dave had the receipt for that filing in the minutes.
- Paul Herr stated that the Amateur Radio working group was meeting in the fire training center in York and needed a local representative to take his place.

- The data link between Lancaster Regional and Carlisle was discussed.

On a motion by Dick Hess and a second by Paul Herr the meeting was adjourned.

Respectfully submitted,
Dave Sarraf, N3NDJ
SPARC Secretary

A Day in the Field

The following Field Day needs will be discussed at the March club meeting. If you can help anywhere, but cannot attend the meeting, please contact Jon directly.

- A. Logistics; food, awnings/tents, outhouse supplies
- B. Equipment/Antennas; power, radios, antennas, masts, cables/connectors, logging computers and interfaces
- C. Operations; operator schedule, modes, satellite tracking schedule
- D. Publicity; photographic documentation, writer for the newsletter, contact media, provide greeting/explanations for newcomers

Jon Rudy – K3QF
SPARC Field Day Coordinator

Recycle Program

Recycling is not restricted to club members. Help SPARC and help a green initiative. Aluminum cans are easy to collect and they bring a good price. Recycled paper prices are up a little.

Recycling is an important part of the income required to keep the club

operational. All recycling revenue is now being applied directly to the SPARC site mortgage.

Please take recyclables to Dave Payne's mini recycling center at 1373 Malleable Rd, Columbia or to a SPARC club meeting.

The SPARC heavy duty pickup truck previously used for transporting recycled paper is now for sale. If you know anyone who might be interested, contact Dave Payne, N3LOM.

Coming Events

Tuesday 22 June 2010 7:PM SPARC membership meeting at the Rapho Twp. Municipal Building, 971 N. Colebrook Rd., Rapho Twp.

Jon Rudy will finalize Field Day plans for the weekend. Everyone interested in Field Day is invited to attend.

Saturday/Sunday, 26-27 June 2010 ARRL Field Day

See Jon Rudy's Field Day column for details

Tuesday, 6 July 2010 1100UTC Earth at aphelion, 94,508,351 miles from the Sun. Approximate peak of the Summer Es season.

Saturday/Sunday, 24-25 July 2010 MS BIKE – Lancaster contact Dick, WA3USG@verizon.net for details.

Monday-Sunday 20-26 September 2010 Wide Vigilance III drill. No details

available at this time. Expect the early part to be table top exercises with any Amateur participation probably on Saturday.

Sat Sept 25**Mid-Atlantic States VHF Conference**

CALL FOR SPEAKERS, PAPERS, ABSTRACTS, send to:
pdrexler<at>hotmail.com

NEW LOCATION: Quality Inn Conference Center--969 Bethlehem Pike--
Montgomeryville, PA One Day Conference for experts and beginners alike hosted by the Mt Airy VHF RC Club.

Full info at: <http://packratvhf.com/> web-based registration open soon. One price \$70 early-bird includes CD, light breakfast, lunch, snack & buffet dinner. Raffles and Door Prizes--Indoor selling and outdoor tailgating VHF gear testing--Friday Night Hospitality Room--FREE BEGINNERS SESSION (must register)

Editor's Notes

The editorial comments are mostly in the substitute president's column. I am limping around with a sprained ankle and unable to do much for a few days.

My plans to put up stacked M² loops for 144 and 432 MHz bogged down with drilling holes for cables in my brick wall. I hope to complete the installation for the CQ WW VHF Contest July 17-18.

73, George, W3FEY

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. Presently being held on the 145.310 MHz repeater.

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

Combined York County Amateur and ARES/RACES NET convenes at 8:30 PM (2030) Mondays on 146.97.

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.

SPARC Nets

SPARC holds nets on the 2nd, 3rd, 4th, and 5th Tuesday (every Tuesday except the first) at 2100 local time on 145.230 MHz minus offset and a PL of 118.8. The 449.975MHz repeater is linked to the 2m repeater for the net.

Club Officers

President Harry Bauder – [WA3FFK](#)
Vice-President: George Gadbois – [W3FEY](#)
Secretary - Dave Sarraf. - [N3NDJ](#)
Treasurer - Ted Freedman - [K3KSA](#)
Repeater Trustee - Dave Payne - [N3LOM](#)
Past President - [Mike Warner](#) – [N3XPD](#)
Board of Directors - Jim Silvius – [KW3E](#)

Nearby Nets of Local Interest

York County Sponsored Nets:

Combined York County Amateur and ARES/RACES NET convenes at 8:30 PM (2030) Monday on 146.97.

Tuesday Nets (Note new schedule for Technical Net)

Elmer/DIGITAL NET -- Tuesday, 8 PM on the York 146.97 Repeater --
The first 15 minutes or so will be open to questions. DIGITAL Communications testing will continue after that.

Friday Digital Net

Friday evenings starting at 8 PM on the 146.610 (PL:131.8 Hz) EARS repeater on Ephrata Mountain.

This is an excellent Digital net called by Bob, AB3GF. Check in is by digital, BPSK125. It is an informal, well run net with plenty of Digital transmissions along with discussion by voice.

NTS-EPA

AA3RG and Echolink Traffic Net" (EAETN) meets every Thursday at 8:00pm on AA3RG-R 146.640(-) Tone 82.5 both Echo Link and 2m radio check ins welcome. No previous experience needed. Just perfect for new hams on 2m or EL on AA3RG-R CONFERENCE.

Please join in and let others know about it as well.

73 -Scott N3SW EPA STM

Delaware Co. Mobile Sixers Net Schedule
Sunday 2000 50.550 MHz USB

PACKRAT MONDAY NIGHT NETS

Visit the Mt Airy VHF Radio Club at: www.packratvhf.com for the latest information on VHF/UHF nets.

2M Northeast SSB Net Mon – Fri, 0700 check on 144.200MHz for possible DX openings. 0730 – 0830 net on 144.176MHz. This is a very long running net that runs from NJ up the coast to RI and beyond.

QRZ News Publication

QRZ News is published monthly on the second Tuesday of each month, two weeks before the monthly meeting. Deadline for article submission is the second Monday of each month. If a large amount of editing is required, earlier submission is requested.

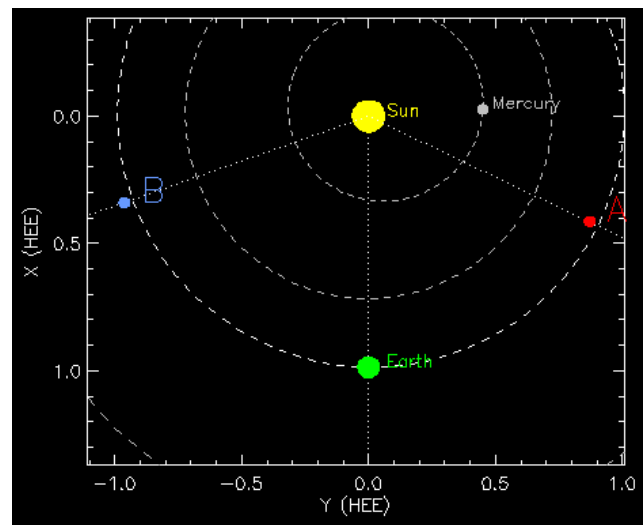
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QRZ News is archived at http://www.k3ir.org/QRZ_News.html. Documents are in PDF format.

Dave Payne, N3LOM, recently found a paper copy of the first quarter 1999 issue of QRZ News. This is the oldest copy of QRZ News in the archive. The next oldest copies are from 2001.

The Stereo Mission

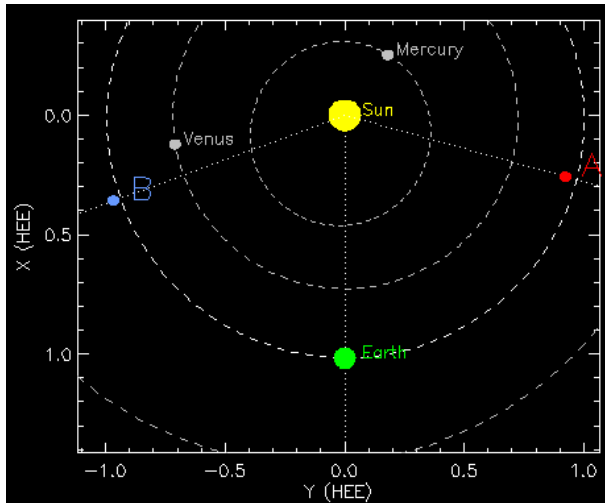
The stereo mission is a pair of space probes monitoring the Sun from positions ahead and behind the Earth in its' orbit around the Sun. These probes are proceeding to move apart, eventually providing for a complete view of the Sun. No sunspot shall pass unseen!



Probe positions A & B as of 2 Feb 2010

The scale of the graph rulings is in A.U. (Astronomical Units) which is the mean distance from the Earth to the Sun.

Mercury takes 88 days to orbit the Sun.



Probe positions A & B as of 21 June 2010

Venus is very bright and visible very soon after sunset in the west. Venus takes 225 days to orbit the Sun.

See <http://stereo.gsfc.nasa.gov/> for more information.

George, W3FEY

K3UIG de K3ITG

By James L. Ibaugh, AA3C, ex-K3ITG

Can a ham ever get away from his radios? - ED

It was mid June, 1962 and I was loading up my 1958 Ford 4 door Fairlane to the roof for my trip to Washington, D.C., where I was entering [George Washington University](#) for the [Summer GWU Session](#). I didn't have room for my National HRO-60 -Heathkit DX100B/SB-10 rig, so I had to settle for a stack of 3 inexpensive Benton

Harbor Lunch Boxes: HW-19 "Tener" 10 Meter, HW-29A "Sixer" 6 Meter and HW-30 "Twoer" 2 Meter Transceivers. I mounted the HW-30 on top, HW-29A in the middle and the HW-19 on the bottom. I removed the carrying handles from the HW-29A and the HW-19 boxes.



I bolted all three cases together in a stack that fit just perfectly on the car's transmission hump.

Then I made a set of "L" brackets to hold the stack firmly in place during high speed mobilizing. The top handle was strong enough to lift the stack out of the brackets for very quick removal.

The power plugs were wired in common to a shielded cable leading to a heavy duty double vibrator HV power supply located in the trunk. I had been warned not to leave any two-way radio in the car while parked along the public street, so I designed it for very quick disconnect and removal. I had four antennas, a 5/8th wave 2 meter trunk lid

lip mount, a 10 foot stainless steel CB whip with large spring base on left rear bumper, which I cut down to give me 1.1:1 SWR@ 28.650 Mc. On the other end of the bumper, I mounted another CB whip inductively tuned up to 5/8th wave @ 50.150 Mc. Slightly off center on the bumper was mounted a custom bumper mount and telescoping mast with a MoPar Saturn 6m three ring halo horizontal polarized mobile antenna. There were a few very quirky operating characteristics. All three HW's could receive at the same time. But if I transmitted on one HW, I had to turn the other HW's off, or nasty noises would emanate from the two non-transmitting HW's and be picked up by the microphone in use. Heath HW's were Xtal controlled and I had three Xtals for each HW, which were chosen for the W.D.C. Metro area as suggested by locals on previous visits to GWU.

I was living six blocks from Capitol Hill on East Capitol Street in the heart of W.D.C. From my third floor room of the very tall Monet House, still on Capitol Hill, VHF coverage of the city and out into the suburbs better than I expected. I was allowed to hang some whip antennas out the windows since my room was in the rear. The first call, “CQ CQ CQ from K3ITG portable3 K3ITG/3 K anyone”, yielded a contact with a W4?? call, old timer in Alexandria, Virginia. That's almost 20 miles distance on 5 watts AM simplex on a quarter wave vertical antenna!

I quickly learned how to use the metro bus system since parking around GWU was prohibitively expensive. Summer classes went well enough but I needed to get a job to augment tuition and living costs. I took the [United States Department of Justice Entrance Examination](#) and three weeks later I received an offer of a direct appointment to the [Federal Bureau of Investigation](#). I

accepted! After nine months of [FBI School and Training](#) I was assigned to the Technical Section of the [FBI's Identification Division](#) as a Finger Print Analyst. I made arrangements to transfer from GWU's day classes to night classes at GWU-FBI's Extension Campus in the building where I worked which was very convenient. It was a heavy schedule, FBI day work and GWU night classes. I still managed to get in some hamming. One evening I was driving across town and got stuck in a traffic jam. Not moving at all, I called CQ and made contact with “K3UIG” who gave his name as Barry and said he worked here in Wash. D.C. We exchanged signal reports, 59+ both ways. Barry said he was trying out a Heathkit HW-30 which he just finished assembling. I told him I was using the same model HW-30.

He went on to tell me that building radio kits was his hobby and he did it for relaxation. We ended the first of many short QSO's which we had over the next year. In another QSO with a W4???, I was asked if I knew who K3UIG was, he heard our QSO the previous day. I said I didn't own a callbook and that he said his name was Barry. The W4??? informed me that I was talking to U.S. Senator Barry Goldwater, K7UGA.

K3UIG was his station call for his QTH here in W.D.C. I had many more QSO's with K3UIG and I called him Barry. That's not the end of my story. Several years later I took advantage of a unique FBI program. I applied for a transfer to the military through their “Extended Military Leave Program”. The FBI granted me up to seven years military leave to serve in my choice of a uniform branch of the U.S. Military. The FBI retained my name on their rolls as inactive and would reinstate me to the FBI at the end of my honorable military service, if I wanted reinstatement.

I enlisted as an ordinary airman in the regular U.S. Air Force and went through basic training in Texas. While there, my records from FBI and GWU were reviewed including both my FCC amateur radio and commercial licenses were taken into consideration. I was posted to a training squadron and entered the USAF [AIR UNIVERSITY](#) extension. While at the 774th I joined the squadron MARS group. Upon graduation and with new sergeant stripes, I was sent to the 682nd Radar Squadron at Almaden AFS, California. My primary duty as GATR Radio Technician left just enough time to fulfill my secondary job as NCOIC of 682nd MARS station and Auxiliary Amateur Radio Station.

My next and last USAF assignment was in the Alaskan Air Command on Fire Island Air Force Station. I was the GATR-Tx NCOIC and the MARS NCOIC of AK1AP". Also I was the NCOIC of AFRN Fire Island, 640KC! While on duty at "AK1AP" one Saturday afternoon, my usual day for a phone patch to my family and my betrothed red head, the future Mrs. K3ITG (XYL); the bands were not in good shape from Alaska to Hill AFB MARS. After dozens of unanswered calls to Hill AFB in Utah another MARS AF gateway station "AFA7UGA" offered to patch me into Utah.* I recognized the distinctive voice of "K3UIG" even through the side band distortion and QSB. On the next transmission I mentioned my home call "K3ITG". Barry came back to me and said "Hello Jim, I thought your voice sounded familiar. What are you doing up in AK land Jim? AFA7UGA"



**Senator Barry Goldwater Major General,
United States Air Force R.**

He died on May 29, 1998, at the age of 89 in Paradise Valley, Arizona, of stroke complications. K7UGA would have been 100 years old in 2009. *Barry patched me through to Shari and I talked for 30 minutes, with K7UGA at the TR switch.

73's de AA3C - Jim, ex-K3ITG, ex-AK1LE
AA3C@ARRL.NET
AA3C@AMSAT.ORG

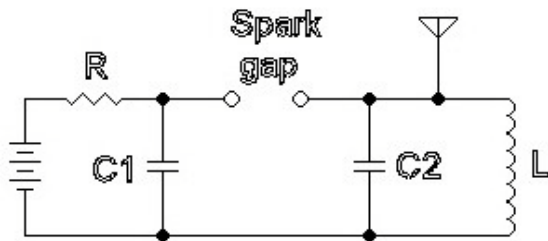


History Revisited

The May issue of QRZ peaked my attention with the mention of Old radio.

Several years ago I built a spark transmitter using an ignition transformer from an oil furnace a coil a capacitor and a rotary spark gap. Probably the hardest item to home brew were the capacitors. I tried many combinations of foil and insulators and finally settled on using glass as the dielectric. Keeping the spark from breaking things down was pretty hard to accomplish.

For C_2 I used pieces cut about 3x5 inches and alternate aluminum foil between glass plates,, one pc of glass,one foil,, one glass etc. I have around 8 pieces of glass, I had to keep the foil at least a quarter inch from the edge of the glass.



The coil and cap combination ended up resonant in 80 meters. My rotary spark gap should have many more studs or run at a faster speed, as the tone it makes isn't all that different than a plain spark gap. It is made from a piece of pipe with the studs mounted through the pipe and half go to one side of the spark and the remaining to the other side. When the rotor passes the aligned gap the adjusted space allows it to spark. Back in the days hams built rotary gaps to give their signal a unique sound to differ from background static.



OK so how does all this actually work? The coil and cap form a tuned circuit and the sparking adds energy to the tuned circuit, makes it oscillate. It first charges the capacitor which discharges through the coil, which creates an EMF, which is stored in the coil, which discharges back to the cap?

This repeats over and over and generates an RF signal in the process. This all happens very fast. In an ideal tuned spark rig the sparking will occur at the same time/place on the RF cycle, which produces the best kind of narrow RF. The function of the tuned rotary gap would be to spark at the same place each time and then force the ionized spark to extinguish by moving the gap away from its sparking point. This allows for the RF cycle to complete and doesn't allow that energy to disappear back through left over spark. You don't want a continuous spark but just one at the correct point on the RF cycle.

It's interesting to note that the first experimentation of RF waves was done at Microwave frequencies and in fact a simple gap placed inside and near the end of a closed 10-gig wave-guide will generate RF at microwave frequencies, Hmm would that jam police radar, could but I would probably knock the whole mess into my lap and generate my own Jamming.

Over all it was fun to put this together. I also notice the change that happens to the sparking when it's applied to the coil/cap.

The spark goes from a mild mannered thing trying to ignite the furnace to a loud growl thing that is generating RF.

During the 100-year celebration of Marconi's signal crossing the Atlantic, a Canadian put a small spark rig on the air and I was able to copy him sending M A R before the signal faded. Pretty much operated on 80 top to bottom. I have a wave file of that signal if anyone wants a copy I can send it.

[Google keystone vhf club](#) and in the web page to the left hand side click on Club videos ,, under 2010 click on spark transmitter to see the action

Bob, K3DJC



Red Lion Beacons

I was able to enlarge the Tower picture a bit with my scanner. I have marked the beacon box and some of the Ham antennas.

Our agreement with the tower owner is to not have any MW antennas above the catwalk around the building on top. The large round radome on top has a rotatable MW dish inside. It is used for remote mobile feeds. We estimated the camera was approx 2 miles away. That was the closest we could get on that side of the tower.

73, Charlie Heisler
K3VDB

See the April 2010 issue of QRZ News for details on the updated W3HMS beacons.