

WASHRAG









Next Monthly Meeting: March 13 th, 2014

The next meeting of the Wireless Association of South Hills, Inc. will be on **Thursday, March 13th 2014**, at the Crossroads Ministries Church, 88 Walter Long Road off Route 88, Finleyville PA, starting at 7:00 PM.

Pizza Night, *WASH*Fest 2014, the Arduino & Raspberry Pi Workshop(s), and other plans for the rest of the year will be amongst the topics. See you there!

Cover Photos: Two views of **WASHFest 2014** from early on Sunday Morning. If you weren't able to be there, this gives you an idea of how jam-packed the Castle Shannon VFD Memorial Hall was!

Photos courtesy of and © Copyright 2014 Ron Notarius W3WN. 6 More Pages of photos inside this issue!

WASH 2014 OFFICERS

EXECUTIVE COMMITTEE:

Quartermaster

President Carol Danko KB3GMN VP / Secretary Ben Williams KB3ERQ VP / Treasurer Mark Stabryla N3RDV

AND WE COULDN'T DO IT WITHOUT:

N3SH Trustee Larry Comden K3VX
WA3SH Trustee Rich Danko N3SBF
NP2SH Trustee Paul Jordan NP2JF
N3SH WA3SH NP2SH/B QSL Manager Ron Notarius W3WN
NP2SH 2009 QSL Manager Carl Schroeder K9CS
VE Team Liaison Ron Notarius W3WN
Webmaster Sean Sleeman N3NWR
Asst. Webmaster Ben Williams KB3ERQ

WASH FM Net Manager Sean Sleeman N3NWR
WASHFest 2015 Committee Carol Danko KB3GMN, Chairman

Harold Rosenberger K3HCR

Bill Hill W3WH, Co-Chair
Activities & Operating Events
Ways & Means
WASH 2M Contest Chair
Field Day 2014 Coordinators

Bill Hill W3WH, Co-Chair
Rick Bell KB3IAC

Ran Notarius W3WN
Larry Comden K3VX
Rick Bell KB3IAC

CLUB-AFFILIATED REPEATERS, BEACONS, & DIGIPEATERS:

Mt. Lebanon N3SH/R 146.955 MHz (-) PL 131.8 North Side N3SH/R 442.550 MHz (+) PL 131.8 443.650 MHz (+) N3FB / R Canonsburg PL 131.8 St. Johns, VI NP2SH/B 28.276 MHz Propagation Beacon 144.390 MHz APRS Digipeater Canonsburg

N3SH / WASH WASHNet, the weekly on-air net of WASH, meets every Sunday Night, 9:00 PM ET, on the 146.955 & 443.650 repeaters.

All radio amateurs, WASH members or not, are welcome to join in!

THE LEGAL STUFF

"The WASHRag™" (formerly "The Mariner ™") is the Official Newsletter of the Wireless Association of South Hills, Inc. (WASH)

Published Monthly with occasional Special Editions as warranted.

This issue is © Copyright 2014 by the WIRELESS ASSOCIATION OF SOUTH HILLS, INC.

Editor & Publisher: Ron Notarius W3WN

Permission is granted to other Amateur Radio publications to reprint articles in this issue, provided the original author and "*The WASH*RagTM" are given credit. Comments, articles, and requests for copies of or information about "*The WASH*RagTM" should be mailed to the editor:

Ron Notarius W3WN 3395 Rosewood Drive Castle Shannon, PA 15234-2546

e-mail: newsletter at n3sh dot org or w3wn at arrl dot net

"The WASHRag", "The Mariner", SHARCfest, South Hills Hamfest, WASHfest, WASHfest 2014, N3SH Net, WA3SH Net and WASHNet are
™ trademarks of the Wireless Association of South Hills, Inc.

The Wireless Association of South Hills, Inc. was founded on August 23rd, 1993, as the original South Hills Amateur Radio Club, and operated under that name through 1998. WASH was also known briefly in late 1998 as the N3SH AMATEUR RADIO Club. It is not in any way affiliated with the "South Hills Amateur Radio Club, Inc." and is not responsible for that group, it's members, or it's actions in any way, shape, or form.

As always, special thanks to the owners of both the N3SH-W3SRL Repeater System and the N3FB/R Repeater System for permitting the **Wireless Association of South Hills, Inc.** and it's members to use their repeaters for club purposes.

WASH Amateur Radio Club News Briefs

Next WASH VE Test April 17th

The Next WASH VE exam sessions will be Thursday, April 17th, 2014, 7:00 PM, at WPXI TV, 4145 Evergreen Road, Pittsburgh, PA. Talk-in on the 146.955 MHz and 443.650 MHz repeaters. All examiners are ARRL VEC affiliated.

Due to space limitations, pre-registration is required. Walk-ins will be accommodated only if space and time are available. if you plan on attending the test session, please contact VE Team Liason Ron Notarius W3WN:

Telephone (412) 572-6723 or E-Mail: w3wn at n3sh dot org

Please bring the following to your test session:

Picture ID or other suitable identification (2 forms of ID required) Pen / Pencil / Calculator

Original FCC license plus a copy of license (if upgrading)

Original CSCE plus a copy of CSCE (if upgrading)

Check or Cash in the amount of \$15.00 (payable to: ARRL VEC)

Thursday, July 17th, 2014 Future test dates:

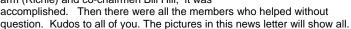
Thursday, October 16th, 2014

WPXI TV 11, 6:00 to 8:00 PM Location:

Carol's Comments

the tables were sold and the patrons were in abundance!

If you remember correctly the net question on first Sunday January was, did you make any New Year resolutions and my response to that was to make this years **WASHFest** the best. And with my right arm (Richie) and co-chairmen Bill Hill, it was



Next year is our 20th ANNUAL HAMFEST . I will certainly make another similar New Years resolution to have another successful WASHFest.

And with the help of our members we can not fail.

Our next project will be ARRL Field Day, June 28th an 29th. Last year was a lot of fun, so reserve the week end.

Looking forward to seeing everyone at the meeting. Don't forget that is also PIZZA NITE. Happy St. Patty's Day.

— 73. Carol Danko KB3GMN

Steve Ford WB8IMY Editor in Chief of QST, has announced that in keeping with the annual there are at least three April 2014 issue of QST. "Some are We'll be curious to see

how many spot

the jokes.

April QST is

currently out

in Digital form

and should be

arriving in

mailboxes

shortly.

 \leq

Taking a page from Pirates Spring Training, we had a "split squad for the WASH Breakfast Gang on February 22"d. Meeting as usual at Suzie B's, Route 910 at the intersection of Route 519 at US 19 in Canonsburg, were K3SGT & Barb, N3FB, KB3GMU, and N3IDH. Staying close to home, & around the corner from the CSVFD Memorial Hall, were W3WH, K3VX, KB3GMN, N3SBF, N3NWR & W3WN. Subjects of the morning covered antenna repairs, morning coffee, Route 19 in Peters Township as a newer Route 51 ("the only thing it doesn't have is Levitski Brothers!"), yet ANOTHER "Polar Vortex", the CQ 160 SSB contest, and recent DXpeditions to 8P... along with last minute musings about WASHFest, of course. And that's just what we have notes on!

We shall meet again at full strength on March 29th. So, please join us at Suzie B's, Route 910 at the intersection of Route 519 at 19, Canonsburg. Our "usual" tables will be reserved, but please let Jim WB4GCS know ahead of time, so that he can make sure Suzy saves us enough seats! We'll try to squeeze everyone in, but you never know! See you there!

What can we say about WASHFest 2014? Unbelievable? Mark N3RDV will have the final figures at the March Meeting, but it sure looks like we have had our largest total attendance ever. Over 200 attendees walked in the door just in the first hour! It just doesn't seem fair that so much fun gets packed into so little time... and before you know it, it's over, and we have another year before another. Blink and you miss it! Our thanks to all of our attendees, all of our vendors, everyone in the club who worked the day of the event to help out, and especially: Carol KB3GMN, Bill W3WH, Rick KB3IAC, who worked so hard all year to put the event together. They make it look easy and seamless... but it's not. Make sure you thank them... and we'll pick up the post-mortem at the March Meeting.

Don't forget that the March Meeting is our traditional post-hamfest celebratory Pizza Night. Please let Carol KB3GMN know if you are planning to come, so that we are sure that we have enough. We don't want anyone to miss out!

Moving on... If you would like to participate in the Arduino / Raspberry Pi project, it's not too late. Rick KB3IAC has already ordered parts for the initial group, but more can be had. Come to the meeting anyway, there's still room for many more!,

A reminder that if you're part of the annual Dayton Hamvention trip to the University of Dayton, Greg NB3C is collecting funds now. If you haven't already squared up with him, please drop him an email ASAP.

We have a lot of events coming up in the next few months. Some of them are Public Service events... St. Patrick's Day Parade, City of Pittsburgh Marathon, Pittsburgh Vintage Grand Prix... plus all sorts of walk-a-thons and similar events. Upcoming local hamfests... Two Rivers ARC (Page 18), Breezeshooter's, North Hills ARC, Somerset Co ARC. Dayton Hamvention, of course. Contests for those interested. Breezeshooter's Groundwave, CQ WPX, state QSO Parties, IARU, ARRL VHF. Plus club events... VE Exams (thanks again to WPXI TV for letting us use their facilities!), the club picnic at Breezeshooter's, Field Day, and not that far off, Pa QSO. Some of these are individual events, some involve collective efforts.

Whether you do so on your own, with your friends, or as part of the club effort... don't miss out. Not everything is for everyone, but there is something for everyone.

Get involved. Lend a hand. Learn something; teach something. And

WASHNet 2014 NCS Schedule

03/02/2014 Sean N3NWR 05/11/2014 Fred KB3DCO 03/09/2014 Carol KB3GMN 05/18/2014 Glen KE7FD 03/16/2014 Fred KB3DCO 05/25/2014 Larry K3VX 03/23/2014 Glen KE7FD 06/01/2014 Bob AB3ED 03/30/2014 Larry K3VX 06/08/2014 Harold K3HCR 04/06/2014 Harold K3HCR 06/15/2014 Sean N3NWR 04/13/2014 Bob AB3ED 06/22/2014 Carol KB3GMN 04/20/2014 Rick KB3IAC 06/29/2014 Fred KB3DCO 04/27/2014 Sean N3NWR 07/06/2014 Glen KE7FD 05/04/2014 Carol KB3GMN 07/13/2014 Larry K3VX

most importantly: Join in & have fun. That's why we're here... right?

Join WASH or Renew your Membership for 2014 Today! Membership Application on Page 19!

Minutes, February 13th Meeting

Ron Notarius W3WN, Acting Secretary, WASH

(Meeting held at King's Family Restaurant, 155 McMurray Road, Upper St. Clair on due to weather issues that closed the church for the night)

Carol KB3GMN called the meeting to order at 19:15 hours. There were 18 members and guests in attendance.

A moment of silence was observed for recent silent keys & other deserving persons.

Motion to waive reading of the minutes based on the minutes printed in the newsletter by Randy N2QIV, second by Bill W3WH, passed unanimously.

Committee reports:

Treasurer (N3RDV): A balance on he bank account was read & accepted.

Secretary (KB3ERQ): No report

VE (W3WN): We will have a test session at **WASHFest**. 6 VE's have volunteered. We have 2 or 3 people interested, but no firm confirmations.

Repeaters (N3FB): Repeating

Repeater Committee (KB3IAC): Cable change for the 146.955 machine is outstanding. 442.55 machine has some issues to deal with. 443.65 site still needs some work once the weather improves.

WASHNet (KE7FD): We are still doing the digital net on Wednesdays. We may move the digital net to Sunday evenings, after the voice FM net concludes.

Contests(K3VX): ARRL DX Contest CW & Phone, Breezeshooter's Groundwave contests coming up. See the newsletter calendar.

Field Day (K3VX): Larry has reserved the same grove in South Park we used for the club picnic last summer. Access should be easier. Some questions about whether the grove had power, Larry will check.

WASHFest 2014 (KB3GMN, W3WH): Carol went over last minute items:

- Members, please wear a name-tag.
- There will be check-ins at talk-in with a check-in prize
- Bill W3WH will be our announcer again
- We should have access to the hall for Saturday setup. Some of us will meet for breakfast at 8:30 at the Trolley Barn prior to setup.
- Please arrive on Sunday at 5:30
- We are only a few tables shy of another sell-out as of tonight.
- Door prizes every half hour starting early; you MUST buy an admission ticket to be eligible for a door prize
- Only members who are working the event get "free" admission.
 Members not working must pay admission
- Those working the door must be strict about no admittance to the public before 8:00 AM, to give the vendors enough time to set up
- There will be 6 dozen assorted doughnuts and 1 dozen bagels available to all during vendor setup.

Public Service (N3RDV): Mike King is asking for volunteers for the St. Patrick'[s Day parade on March 15th.

Ways & Means (KB3GMN): Not tonight

President's Report (KB3GMN): The 2013 Kilowatt Award is being awarded to Sean N3NWR, for his work on the club web site, club net, and the new email group. (Award could not be presented as Sean could not make it, it will be presented soon, probably during *WASH*Fest setup.)

Good of the order: Gary KB3YCX (who is on the tech committee for WPA ARES) mentioned that Harry W3YJ would be interested in talking about broadband HAMNET (formerly HSMM-Mesh)[*] at a future club meeting.

Motion to Adjourn by Rick KB3IAC, second by Eric K3SGT and carried.

Meeting adjourned at 19:50 hours.

After a short break, the evening's presentation by Rick KB3IAC, on the start of the club Arduino / Raspberry Pi project, commenced.

[*] "HAMNET (formerly called HSMM-Mesh) is a high speed, self discovering, self configuring, fault tolerant, wireless computer network that can run for days from a fully charged car battery, or indefinitely with the addition of a modest solar array or other supplemental power source. The focus is on emergency communications."

More information on HAMNET at http://www.broadband-hamnet.org

WASH Spotlight: KW Award



During the setup for **WASH**Fest 2014, Carol KB3GMN was finally able to present Sean N3NWR with the 2014 Kilowatt Award, recognizing all of his accomplishments on behalf of the club last year. Photo courtesy of and © Copyright 2014 Ron Notarius W3WN

Every month we're going to feature a *WASH* club member, something about them, something they're involved in or a club-related activity that we're involved in, in the *WASH Spotlight*. Submissions for the Spotlight should be sent to Ron W3WN at newsletter at n3sh dot org

Monthly WASH Breakfast

Please join us for the next *WASH* Breakfast! We usually get together on the LAST Saturday of every month for a chance to informally sit down, shoot the breeze, compare notes, drink lots of coffee, and just have a good time!

Join us this month at *Suzy B's*, Route 910 at the intersection of Route 519 at US 19, 1 mile North of Dowtown Canonsburg. .Start time is about 8 AM until ???? Monitor 146.955 & 443.650 for talk-in or any last minute changes. All are welcome, *WASH* members or not, amateurs or not!

Wireless Association of South Hills Membership

Wifeless Hassociation of boath lims Membership

AB3ED AB3PJ AC4KU KØLIN K3AIR K3GW K3HCR K3SGT K3VX KA3ANU KB3RXY KB3DCO KB3ERQ KB3GMN KB3GMP KB3GMP KB3GMU KB3IAC KB3IVX KB3PSB	KB3YCX KB3YKL KC3BQI KC4WTT KE7FD KJ3D N2QIV N3DFK N3FB N3IDH N3NWR N3OVO N3RHT N3SBF W3RWS W3VFA W3WH W3WH W3WN	Darryn Sleeman	WASH FL KA3UPY/M W4ZE WASH GA K3OL KB3IJX WASH ID N3ZNI WASH NE NØPEU WASH OR NØVLR NØVLR NØWPV KB3NVL KB3NVM	WASH OH N8DPW WASH SC N3RNX WASH TN KE3XB N3YPB WASH TX K3LGM Jane Wagner WASH VI NP2JF	Silent Keys AB3KA K3EED K3LIE KA3NMG KB3ENX KB3FNM KB3FQT N3FZ N3HKQ N3KEH N3OBD N3SKR N3SRC N3ZEL N3XFE W3ZLK
			dD aa.		

Through March 2ND, 2014
List complied by
Mark Stabryla N3RDV, Vice President/Treasurer

2014 WASH Upcoming Events Calendar

Meeting Topics & Other Significant Club Events — Subject to Change

March 13 th	WASH Meeting	@ Crossroad Ministries Church
March 15 th	Breezeshooter's Groundwave SSB	http://www.breezeshooters.net
March 29 th — 30 th	CQ WPX Contest SSB	http://www.cqwpx.com
April 10 th	WASH Meeting	@ Crossroad Ministries Church
April 17 th	WASH VEC Exams	@ WPXI TV, Evergreen Road, Pgh
April 20 th	WPRC Meeting, Warren PA	http://www.wprcinfo.org
April 27 th	Two Rivers ARC Hamfest	http://www.trarc.net/trarc-hamfest
May 8 th	WASH Meeting	@ Crossroad Ministries Church
May 16 th —18 th	Dayton Hamvention	http://www.hamvention.org
June 1 st	Breezeshooter's Hamfest	http://www.breezeshooters.net
June 1 st	WASH Picnic @ Breezeshooters	http://www.n3sh.org
June 12 th	WASH Meeting	@ Crossroad Ministries Church
June 14 th	ARRL WPA EMCOMM Conference	http://wpaares.org
June 14 th —16 th	ARRL June VHF Contest	http://www.arrl.org
June 28 th - 29 th	ARRL Field Day	http://www.arrl.org
July 19 th — 20 th	Pittsburgh Vintage Grand Prix	http://www.pvgp.org

CAMPBELL (CA), February 26th, 2014 — A man who intentionally rammed his car into a home shortly after 3 p.m. today may face charges of attempted homicide, according to police.

The crash happened at Westmont Avenue and San Tomas Aquino Road, where police said 27-year-old Campbell resident Anthony McSherry Jr. accelerated the Acura TL sedan into a stranger's house at the end of a T-intersection with the intention of harming his girlfriend, a 6-year-old girl and a 7-year-old boy. The occupants of the car were taken to a hospital to be checked for minor injuries and have been released. The driver was then booked into Santa Clara County Jail on suspicion of attempted homicide

and driving while intoxicated, as investigators believe he was under the influence of a controlled substance."

"Over the years there have been several accidents out there because drivers go through the intersection thinking the road keeps going," said Campbell police Sgt. Gary Berg. "The homeowner put up steel pillars, and this car hit one of them and knocked it down."



The car then went through a fence and the backyard before smashing into the house.

"(McSherry) basically told his girlfriend before the crash something to the effect that he was going to intentionally cause an accident to harm them," Berg said.

— Eric Kurhi, Mercury News.

The homeowner was Kevin G. Smith KK6VF. The car hit and destroyed his 55 foot crank-up tower, which, fortunately, was not extended at the time of the accident.

HF-VHF Smartuner

Erecting the 30 Foot Vertical Antenna (Redux) Jim Sanford WB4GCS

Over a year ago, I wrote about the vertical antenna, to be used to test the Remote-Over-Ethernet IC-706. Well, the antenna got erected, with the help of several WASH members, and then efforts moved on to building the box and controls to manage the SGC-231 SmartTuner for installation at

Alas, while those efforts were in progress, an extended period of rain followed by heavy winds lowered the antenna when one of the guy anchors was ripped out of the ground. While disappointing, when I connected the dots with all the large uprooted (not snapped off) trees I noticed about the same time, I couldn't be too angry. We had a lot of rain, followed by a LOT of wind! So, the antenna sat on the ground and under the snow, while the tuner box was built. Fortunately, damage to the antenna was minimal, and easily corrected.

There were explicit requirements in mind while designing the "tuner box":

- Although the IC-706 can and has powered the tuner, I wanted to minimize the load on the Icom, since it is feeding a long cable
- The above requires separate power to the tuner and ancillaries
- The box will be capable of remotely (using the WebSwitch, previously described) selecting either of two antennas
- Both antennas will be grounded when not in use
- The tuner base and output connection will be grounded when not in use
- There will be some amount of diagnostic information available at the box to reduce trips back & forth to the radio cabinet or computer These requirements led to the design shown in the photo above (Figure 1).

The SmartTuner is obvious, and its output is at the top right, going to the upper relay, K2. This relay switches the tuner output from ground when de-energized to an antenna "bus". The next two relays, coming down the right hand side of the tuner are K3 and K4. These relays switch the two antennas between a separate antenna ground and the antenna bus.

The two antennas are, an 18-foot vertical with four 6-foot elevated radials; this is the default. The alternate antenna is a 30-foot shunt-fed grounded-base vertical. This arrangement makes the most likely-to-be-struck-by-lightning antenna farthest from the tuner, as will be seen below.

The control board, in the lower right, does several things. First, it provides a connection point for the various control and power connections, at the screw terminal strip on the right. Second, it provides diagnostics, via the three LED displays, and finally, it controls the other relays.

- When Power is applied to the unit (fused at 5Amps when the radio cabinet power is on), the PWR LED illuminates.
- When the IC-706 is turned on, energizing its tuner output line, that provides an ENABLE signal, which energizes the second LED and a transistor on the control board, Q1. This line fused at 0.5Amps.
- The transistor Q1 picks up relay K1, which provides power to the SGC tuner and energizes relay K2, switching the SmartTuner output from its ground to the antenna bus.
- K1 also energizes relay K3, (through K5) connecting the "default" antenna to the antenna bus. The SmartTuner now has a path from its output to the default antenna.
- When the ALT ANT line (downstream of the power fuse) is asserted by the WebSwitch with 12 volts, it picks up K5, which drops K3 and picks up K4, connecting the alternate antenna to the antenna bus. The default antenna is disconnected and the alternate antenna connected. You'll note that the connecting wiring is either braid or as heavy as possible to minimize stray inductance and maximize current-carrying capability in a lightning strike.

A few comments on lightning. A lightning strike results in instantaneous currents on the order of tens of thousands of amps, with resulting damaging voltages. All grounds in this system go to the same ground rod, the same ground potential. The antennas have their own ground, so that the voltage induced across milli-ohms of resistance and inductance by tens of thousands of amps is isolated to the antennas. The tuner output is isolated by relay K2, and grounded separately to the same ground point. It will not see the same current, so will see much less voltage than the antennas. The tuner base (common) shares the ground with the output, so the potential difference between the two is minimized in a lightning event - or at least, that's the theory. You'll see later that the tuner input has a lightning arrestor on it, tied to the same tuner ground. So, hopefully, the base, input and output of the tuner will all be at the same potential during a lightning event, despite inductive coupling from the parallel ground braids and capacitive coupling in relay K2. Time will tell. The completed box is shown in the photo right (Figure 2).

At the far left is the connector for power and control. This is an Amphenol military style connector, and not cheap, but provides plenty of current-carrying capability and is weather proof. I will use these in future outdoor applications. Next is the RF input, and you can see the lightning arrestor. To its right is the ground connection and lead for the tuner base and output, connected below to the ground from the RF input arrestor. Finally, on the far right, is the connector and cable which connect the antennas to ground.

Now that it is done, there are some things that I'd do differently next time. First, I realized late in the game that the functionality of Q1 and K1 could have been kept in the radio box, freeing up a conductor in the cable to the tuner box. In the original design, I wanted 12volts available at the tuner box for "other things".

Now, I don't know what those other things are/were.

More important, if I were doing this over again, I'd have done K1, and K5 with larger octal-base plugin relays, as in industrial control systems. I used the Omron relays to keep it small, but now realize that the surface mount socket is easier/faster to wire to, and relay replacement is much simpler. I would put Q1 and the LEDs on a much smaller board, probably mounted to the side. There's certainly enough room in the box.

MOST important, if I were doing this over again, I'd have K2 and an antenna selection relay in the tuner box, and put the antenna-grounding relays in separate boxes close to the antennas. This would allow a shorter path to ground from the antennas for lightning, and a greater series inductance between the lightningstruck antenna and the tuner box.

Finally, I'd have liked to use ceramic RF relays for K2, K3 and K4. Alas, they were not to be found, at any rational price - and the "available" ones weren't that great. As it was, I used heavy-duty power-switching relays, capable of controlling hundreds of Amps at 60 Hz. In doing this again, I might prevail on friends in the broadcast industry to see what they could recommend or scrounge.



Erecting the 30 Foot Vertical Antenna (Redux) Continued from Page 6

All that aside, lets talk about results. After construction, control and relay functions were tested with a battery and clip leads – SAT. Then the antenna box was connected with temporary cable mimicking the installed control cable, and tested with the Icom and the WebSwitch – SAT. Next up – move the box outside, connect it up, and put an antenna on it. The antenna was a random length of wire, mostly on the ground, but partly in a tree. The first QSO was responding to a CQ on 40 meters from a guy in London. A few hours later, I had a QSO with a gent in Stuttgart. Guess it works.

On Saturday, 8 March 2014, Frank N3FB, Bill W3WH, Rick KB3IAC, and Glen,KE7FD came over and helped erect, repair, and erect the 30-foot vertical. Their assistance is greatly appreciated. We also used multiple devices to measure the feed point impedance of the 30-foot vertical with zero, four, and eight radials. The results of these measurements are still being analyzed, and will be presented at a later date.

I have intentionally described functionality and not presented schematics, since any other similar installation would differ in many details. If anyone wants to see the schematics, please contact me, and I can scan and email the hand-drawn diagrams. In the near future, I will enter into TurboCAD and be able to provide "nicer" drawings.

The antenna box was installed and connected to the antennas and ground on Sunday, 9 March (Right — Figure 3). After the installation, I have discovered one other thing I would and will change – you'll note several ground clamps on the ground rod. It is now time to find a copper plate and bolt all the ground connections to it.

Let the testing begin.





Photos Courtesy of & © Copyright 2014: Figures 1—3: Jim Sanford WB4GCS Antenna Assembly Glen Roberts KE7FD



Berkeley County (SC) ARES

Pete Cole N3RNX/4

With the interesting weather we've been having this winter I thought you might enjoy a little "southern perspective" on what we're doing in South Carolina.

After moving south I wanted to keep active in Ham Radio and joined the Berkeley County ARES

A great bunch of folks dedicated to providing service when it's needed. Berkeley County is the largest in South Carolina, about 90 square miles, with a population of 177,000. Line of site we are 27 miles from the coast.

Nice when you want to go to the beach....about 40 minutes.

Our ARES group's main concerns are hurricanes, earthquakes, and of late, ice storms. The last major storm was hurricane "Hugo" in 1989. It was a direct hit on Charleston and did extensive damage to this entire area.

The last large earthquake was a 7.1 in 1886.

We are in an active zone and get little shakers pretty regular.

Winter problems are usually ice related. Because of the storm we just had they estimate 77,000 still without power as I write this. We were lucky... no problems.

Our group meets monthly at the County EOC located in the Sheriff's main headquarters in Moncks Corner. I've included photos of the center taken at our last meeting. We maintain a radio room in the center to communicate locally and to the State EOC in Columbia.

Equipment includes radios for all amateur bands, VHF Fire and Police, UHF Public Safety, VHF Marine band, Aircraft band, and the statewide Palmetto 800 MHz Public Safety system.

Our main repeater is 147.15 with a back up at the EOC. The entire state is covered by the SCHEARTS linked system. The "South Carolina Healthcare Emergency Amateur Radio Team" It can be configured over the air to connect desired areas of the state.

During normal times we are active with public education events such as hurricane preparedness week and field day each summer.

Our web site is....http://www.kg4rul.com/w4brk/BerkARES.htm

SCHEARTS http://scheart.us/irlp_web/main/

Hope you enjoyed the info.....gets me out of the house for awhile.

Thanks "you-all"

EOC









ARES Meeting

The operators of the DBØQI Munich Amateur TV Repeaters have been ordered by the Federal (FRG) Network Agency to take their two 23 cm band ATV repeaters off the air. One repeater was for Digital ATV, one for Analog ATV. The operators complied with the order on 4 March.

The 23 cm band is allocated to Amateur Radio operators in the FRG on a secondary basis.

The order was made to provide trouble-free and save operation to the Primary user, the German Aerospace Center (DLR) in Oberpfaffenhofen , near Munich. DLR operates from there a control center for the Galileo satellite

navigation (GPS) system. The two ATV repeaters affected operated near the E6 channel on 1278.6 MHz.

10 GHz channels and other repeater systems operated by DBØQI were not affected by this step.

More information is available at their web site at db0qi.de

The New York Times recently printed an article about Galileo and some of the problems that the system was having. The article can be found at http://www.nytimes.com/2013/02/07/world/europe/europes-galileo-qps-plan-limps-to-crossroads.html?pagewanted=all& r=1&

An overview of Galileo from the European Space Agency (ESA) can be found at http://www.unoosa.org/pdf/sap/2006/china/presentations/04-01.pdf

Thanks to the Southgate ARC and Andrew R. Mill Sr. KD2WA for providing some of the links to the above information





Wade Brenda Saves Broken TV From The Landfill Wade Staggs KJ4WS

To the right are pictures from Brenda's new TV set.

A BIG thanks to Bob KJ4QCN and his wife for helping us and keeping the broken TV out of the land fill. We love the TV mounted on the living room wall. Brenda and Wade have been fighting over the remote like cats and dogs but things will settle down eventually and Wade's bruises will go away soon. Wade will come to like watching QVC with Brenda and learn to do without the Cartoon channel.

Troubleshooting began with gentle taps on all four sides with a rubber mallet which is what Wade learnt from working at Carl's TV shop. No luck; it's still broke. Next he tried plugging in the power cord; then hooking up the cable. Still no workie!

Extreme measures were called for and he got Brenda to take the back off the TV to look for burnt parts. Everything looked OK and no visible smoke. Wade tested for voltage by having Brenda touch the circuits here and there with her finger to see if she got shocked. Ouch! Another bruise on Wade's head! There were voltages running around the circuit boards.

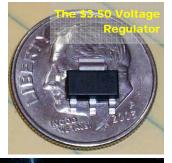
When Wade came to (dizzy and with a headache) Mrs. Brenda pulled the power plug on the TV and told Wade to start replacing parts until he finds the one that is broke. After a few hundred parts he cam across the little voltage regulator that was defective. Brenda told Wade to check it earlier but he just wouldn't listen.

\$3.50 later, which he got from Brenda's purse along with a bloody nose, a new voltage regulator was at hand and the TV was alive and working great.

Brenda had to do the job soldering in the new chip because Wade wasn't seeing to well with his bruised left eye.

Photos courtesy of and © Copyright 2014 Wade Staggs KJ4WS

Right: Brenda's favorite channel (and now Wade's too)





CQ Communications President Richard Ross K2MGA has announced the appointment of <u>David Chartock</u> to head the company's advertising department, effective immediately. Chartock, who is not a ham, arrives "as the magazine charts new ground as a part-print, part-digital 'hybrid' publication covering the entire communications hobby," the CQ announcement said.

As Editorial Director Rich Moseson W2VU explained, "The main print and digital edition of *CQ* continues to focus on Amateur Radio, while the online-only *CQ Plus* supplement to the digital edition of *CQ* covers the full spectrum of hobby radio communications, from shortwave listening and scanning to broadcast band DXing and more."

Chartock succeeds Jon Kummer WA2OJK, who became *CQ*'s advertising chief last fall. Kummer, who left in mid-February, faced a similar recalibration as the publisher of *Antique Radio Classified*.

CQ announced recently that it's still experiencing delays with its January and February print editions, but that mail delivery of both issues was scheduled for mid-March. CQ has told its advertisers that a combined March/April issue of the magazine will follow "shortly thereafter," before it resumes single-issue publication. Online editions of the January and February issues of CQ are available for downloading and viewing.

In CQ's February "Zero Bias" editorial, Moseson cited CQ readership numbers that were "not keeping pace" with growth in the number of ham radio licensees, and "the glacial pace of the overall economic recovery" among the reasons behind the CQ magazine's delivery difficulties.

Word of the publications realignment came in December. Effective with the February 2014 issue of CQ, content from CQ's three sister publications — <u>Popular Communications</u>, <u>CQ VHF</u> and <u>WorldRadio Online</u> — has been incorporated into CQ Plus. The print editions of <u>Popular Communications</u> and CQ VHF have been phased out, and <u>WorldRadio Online</u> no longer exists as a separate online publication.

Radio Scouting Statistics

Jim Wilson K5ND, K2BSA Amateur Radio Associaton http://www.k2bsa.net

We've gathered a few pertinent numbers around Radio Scouting ---

- Radio Merit Badges earned in 2013 = 7,208
- Amateur Radio Operator Rating Strips sold in the past 12 months = 6,833
- Morse Code Interpreter Strips sold in the past 12 months = 1,208

The number of Radio Merit Badges earned represents a new record. The previous record was 7,190 in 2009.

Great work by all the Radio Merit Badge Counselors and their efforts at introducing the fun, technology, and magic of amateur radio to Scouts! Thank you.



Is this For Real? Or is this an Elaborate Hoax?

Steve Mathias VK3YW has listed for sale a most unique amplifier... if this isn't an elaborate hoax. He alleges to be selling the only existing Yaesu VL-2000 HF amplifier, with VP-2000 power supply.

Allegedly, Yaesu commissioned Tokyo High Power to design & construct this amplifier. After they announced it, and exhibited several pre-production units that were seen at hamfests & demos around the world, Yaesu determined that the costs were too high, and cancelled the project. Allegedly, 5 production amps had been built & were to be destroyed... but one survived under mysterious circumstances. And it is that lone amplifier that he now claims is in his possession, and is now for sale.

Minimum offer on the amplifier? \$50,000, which includes insured freight to anywhere in the world.

If you're seriously interested, contact VK3YW at steven.mathias@hotmail.com



WASHFest 2014 Main Prize Winners









Black Box: Nancy Brett KD8QNY (no photo available)

KA3KSP photo courtesy of © Copyright6 2014 Bob Timmons AB3ED. All other photos courtesy of and © Copyright 2014 Ron Notarius W3WN





The ARRL Centennial QSO Party is a year-long operating event that celebrates hams making contacts. In the end you will have accumulated points, worked new stations and made new friends all over the world. W1AW will be on the air from every state and most territories, and it will be easy to work WAS working only W1AW portable operations. This is the first ARRL-sponsored operating event where every member is worth at least one point, so work as many points as you can during 2014! Earn awards based upon points, working all states or working W1AW portable in every state and territory. This is an on-the-air

Complete rules available at http://www.arrl.org/centennial-qso-party

event like no other.

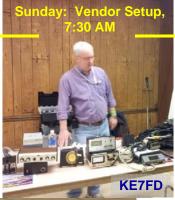
Scenes from a Hamfest

Photos courtesy of and © Copyright 2014 Sean Sleeman N3NWR

















Scenes from a Hamfest

Photos courtesy of and © Copyright 2014 Bob Timmons AB3ED



Scenes from a Hamfest

Photos courtesy of and © Copyright 2014 Ron Notarius W3WN



Scenes from a Hamfest

Photos courtesy of and © Copyright 2014 Ron Notarius W3WN



Scenes from a Hamfest

Photos courtesy of and © Copyright 2014 Ron Notarius W3WN



ARRL To File "Friend Of The Court" Brief in OH Antenna Case

Courtesy of the American Radio Relay League www.arrl.org

Newington, CT, February 26th, 2014 — The ARRL plans to file a "friend of the court" or amicus curiae brief on behalf of an Ohio radio amateur who has been at loggerheads with his community since 2009 in efforts to erect a modest antenna support structure. The Village of Swanton, Ohio, turned down the application of ARRL Life Member Gary Wodtke, WW8N for an antenna variance to put up a 60 foot tower. Wodtke appealed, however, and in January the Fulton County Common Pleas Court issued a final judgment in his favor, ruling that federal and state law preempted Swanton's antenna ordinance.

Now, Swanton is appealing that order to the Ohio Sixth District Court of Appeals, asserting, in part, that Ohio's PRB-1 antenna law is unconstitutional, because it conflicts with the state's "Home Rule" statute, which gives communities broad and preemptive regulatory powers. Like the federal law, Ohio's PRB-1 statute calls on towns to "reasonably accommodate amateur station communications and shall constitute the minimum practicable regulation necessary." Ohio Section State Government Liaison Nick Pittner, K8NAP, believes the state appeals court's decision in Wodtke v. Village of Swanton could set legal precedent for similar antenna-related cases down the road. An attorney, Pittner was instrumental in getting Ohio's PRB-1 law enacted.

"Appellate decisions are generally final, unless further review is granted by the Ohio Supreme Court," Pittner said in a statement. "While a court of appeals decision represents the law only in that appellate district, it carries significant precedential value in other Ohio courts and may also be cited in similar cases in other states."

In addition to the state's antenna regulation pre-emption law, the application and authority of the federal PRB-1 statute, embraced in Section 97.15(b) of the FCC's Amateur Service rules, will be at issue in the appeal. This case will mark the first time a state PRB-1 law has been challenged in an appeal.

Assisting in the case is telecommunications attorney and antenna rights advocate and expert Fred Hopengarten K1VR, the author of *Antenna Zoning for the Radio Amateur*, published by the ARRL and now in its second edition.

The Village of Swanton's ordinance established a fixed antenna height of 20 feet above the residential roofline. Wodtke wants to install a 60 foot antenna support structure on his 0.2 acre residential lot; the village allows greater height where the lot is at least 5 acres. While the appeal is pending, both parties have agreed that Wodtke be permitted to install a 40 foot antenna support structure, which complies with Swanton's current ordinance.

DARC Questions BPL/PLT Tests

Courtesy of the American Radio Relay League www.arrl.org

While complaints of BPL interference have become rare in the US, the Deutscher Amateur Radio Club (DARC), Germany's national Amateur Radio society, continues to battle the issue. The DARC recently raised questions regarding the measurement protocol that federal authorities used to test devices used for power line telecommunication (PLT), as BPL is known in



Deutscher Amateur-Radio-Club e.V.
Burdesverband für Amateurfunk in Deutschland

Europe. The DARC Scientific Research Associate Thilo Kootz DL9KCE said it appears the Federal Network Agency conducted some of its PLT emission measurements while the devices were in stand-by mode, with no data being transferred.

"The agency concluded that the device met all standard requirements," Kootz said, "but our preliminary findings showed that emissions from a similar unit were approximately 100 times above the limit." The DARC had to use the Freedom of Information Act to obtain a copy of the measurement protocols the federal agency employed, he said, which leave several questions unanswered. Kootz called it "a questionable procedure" to measure the PLT device while it was at idle.

"A lawnmower that's not running does not violate the noise ordinance," he said. "Such a measurement technique offers carte blanche for thousands of other devices that should not be permitted to come to market."

The DARC said radio amateurs have had negative experiences with PLT devices, the use of which, it said, can cause massive interference to radio reception and affect other wireless services as well.

DX News Briefs

4S7DRG, 4S7FRG & 4S7LXG will be QRV from Sri Lanka 10 – 23 March. Activity will be on 160 – 6 meters, with one station exclusively dedicated to PSK31, RTTY & SSTV. More information at http://www.dl7df.com/4s7/index.php. QSL via DL7DF – DL7DF

YS1/NP3J will be QRV through December. QSL via EA5GL - JA6WFM

7P8PB is EI7CC, 14 march - 3 April. QSL via EI7CC - EI7CC

HH2/N5JC & HH2/N5JR will be QRV 24 March – 1 April. Activity will be on 160-6, with a focus on the WARC bands, CW & RTTY. During the CQ WPX SSB contest, they will be QRV as 4V1JR. QSL 4V1JR via W3HNK, HH2/N5JC via N5JC, HH2/N5JR via N5JR – N5JR

JH1AJT will be QRV as **XZ1Z** 15 – 21 March, in his spare time, as part of his work for the Foundation for Global Children http://www.fgc.or.jp/english/. He will focus on the high bands. QSL via JH1AJT – DX World

Look for ${\tt VU4K}$ from AS-001 Andaman Islands 23 – 30 March, HF, SSB & RTTY. QSL via W4VKU – W4VKU

D44TEG will be QRV from Santiago Island AF-005, 29 March – 5 April, 20 – 10, CW PSK & RTTY. QSL via HB9EBT – HB9EBT

6W/F4GPK will be QRV 4 - 15 April, 160 - 10. QSL via F4GPK - F4GPK

CEØY/CE1WFN will be QRV from Easter Island 5 – 17 April. QSL via CE1WFN – CE1WFN

Look for **KH8/DL2AWG**, **KH8/DL6JGN** & **KH8/PA3EWP** from Ofu Island OC-077, 9 – 20 April. QRV on 40 – 10, RTTY CW & SSB. More information at http://www.ofu2014.de/ QSL via DL2AWG – DL2AWG

DF8AN will be on a "tour" of the Caribbean 15 – 29 April, 160 -6, mainly CW. He will be operating as **V26MN** 15 – 16 April, **VP2MMN** 16 – 24 April, and **V4/DF8AN** 24 – 29 April. QSL all via DF8AN – DF8AN

A "suitcase" mini-DXPedition to NA-033 San Andres Island will be QRV as $5J\emptyset X$, 2 – 14 April. They will operate "holiday style" CW SSB & PSK on 80-10 meters. QSL via N7QT – N7UN

The "Black Mamba Contest & DXpedition Team" will be QRV as **7QAA** (no second number, that's not a typo) in November & December 2014, including the CQ WW CW contest. More information to be forthcoming at http://www.malawidx.org/ -- DX World

A group of Japanese operators have announced plans to be QRV as VK9C from Cocos-Keeling, 29 July – 2 August; and VK9X Christmas Island 2 – 8 August. Activity will be on 160 – 6, CW SSB FM RTTY & PSK31. More information at http://vk9.nobody.jp/index.html QSL via JF3PLF – DX World

QSL Routes

3DAØET via N7RO - JA1HGY 5JØR via EA5RM – EA5RM 5JØX via N7QT - N7QT 702A via UA3DX - JA1HGY 8P5A via NN1N - NN1N 9H3XW via G3XW - G3XW 9J2T via I2YSB - I2YSB A22LL via ZS1LL - ZS1LL A35JP via JAØRQV - JAØRQV C6ANA via N5NHJ-W1NA CN2AA VIA UA2FM - CN2AA CR9X via OH2BH - W4DN CYØP via VE1RGB - JA1HGY ED6A via DJ2MX - JA1HGY FJ/DK7LX via DK7LX - JA1HGY FW5JJ via F5RXL - LU2DKN J34J via JA1HGY – JA1HGY J79TA via SMØT -- SMØDZB

K9W via AA4NN-LU2DKN KP1/W5IJU via N2ZN - N2ZN LZ7I via LX2A - LX2A P4ØP VIA W5AJ - V26P PJ7AA via AA9A - AA9A T33A via N7CQQ - LU2DKN T6T via RW6HS - KU4BP UG6GAW via EK6GC - DF2RG VK9X/K7CO via K7CO - K7CO VKØTH via WL7E - UA6JD VP2MXT via G3TXF - G3TXF VP5H via WØCG -- WØCG VP6T via G3TXF - G3TXF VP9/G7VJR via MØOXO - G7VJR WP2Z via KU9C - WP2XX XU7ACQ via KFØRQ -- KFØRQ Z81X via OH2BH - W4DN ZD8D via DJ9KH - DJ9KH

Thanks to the NJDXA *DX News & DX Chat* Reflectors, the *DX-QSL* Reflector, *425 DX News*, *OPDX News*, *DX World.Net, ICPO Bulletin*, & *ARRL DX Bulletin* for our *DX News* information. Thanks also to Bill Moore NC1L / ARRL DXCC Desk, & Bernie McClenny W3UR / *The Daily DX* for confirmations & additional information.



WASH Classifieds

Information shown here is as supplied to the *WASH*Rag. Condition as stated, and all sales should be considered "as-is" unless otherwise noted. All subject to prior sale or withdrawal from sale at the owner's discretion. All responsibility for this information lies with the source and not the *WASH*Rag or the WIRELESS ASSOCIATION OF SOUTH HILLS, INC.

HAM RADIO INSURANCE ASSOCIATES, INC. P.O. Box 201 Canonsburg, PA 15317-0201 Toll-Free 1-800-545-8881



Fax: (412) 746-5944

bill.hill@hamradioinsurance.com

"All-Risk" Amateur Radio Equipment Insurance Plan for:
Radio Equipment Computer Equipment
Antennas Rotors & Towers Computer Media & Software
Cellular Telephones

Mechanical Breakdown & Electrical Damage Coverage

Antenna Zoning or PRB-1 Issues?

Contact: Michael S. Lazaroff K3AIR, Esquire

Murrin, Taylor, Flach, Gallagher & May 110 East Diamond Street, Butler PA 16001

Phone: 724-282-3141 <u>mlazaroff@murrinlaw.com</u>

The **WASHRag** Masthead is courtesy of Jeff Murray K1NSS creator of DASHToons & Dash the Dog Faced Ham!!

Find the online cartoons and stories of Dash the Dogfaced Ham & more at www.dashtoons.com!

Shop for Dash items at his online store on Café Press, www.cafepress.com/shopdash





Has Roadway found the tower yet?



< FCC News

Courtesy of the American Radio Relay League

Newington, CT, March 6th, 2014 — The FCC has issued a <u>Citation</u> to a New Jersey Citizens Band radio shop for marketing unauthorized RF devices to consumers, in violation of the Communications Act of 1934 and FCC Part 2 rules. The <u>Citation</u> to Thomas Wilson, doing business as <u>Redman CB Stop</u>, in Absecon, New Jersey, was issued March 5th.

"Redman CB Stop should take immediate steps to discontinue the marketing of unauthorized radio frequency devices, and to avoid any recurrence of the misconduct described herein," the FCC said in the *Citation*.

Last October an agent from the FCC Enforcement Bureau's Philadelphia office browsed the website of the online retailer of CB and Amateur Radio gear. The agent "observed for sale 16 makes and models of non-certified RF power amplifiers" capable of operation on both the 11 meter Citizens Band and the 10 meter ham band. The FCC said examples of the non-certified offerings included "the Fatboy 900 Mobile Amplifier" and the "Zombie Products 500 Watt ERP Linear Amplifier." Neither of those devices and others that the FCC alleges the retailer was marketing, may be offered for sale prior to FCC certification. FCC rules require external RF amplifiers operating below 144 MHz and marketed in the US to first receive Commission a grant of certification before they may be marketed. In addition, the FCC rules prohibit marketing or selling external RF amplifiers capable of amplification between 26 MHz and 28 MHz — the 11 meter Citizens Band.

The FCC gave Redman CB Stop 30 days to respond to the *Citation*. The FCC said it will use "all relevant material information before it," including information the retailer may disclose, to determine what, if any, enforcement action may be necessary "to ensure your compliance with the Communications Act and the Commission's rules."

The FCC has issued a *Notice of Apparent Liability for Forfeiture* (<u>NAL</u>) to James R. Winstead KD5OZY of Coleman, Texas, after determining that Winstead "apparently willfully violated" FCC rules by interfering with Amateur Radio communications. The Commission proposed a \$7000 fine. The action was in response to complaints from other radio amateurs of intentional interference on 7.195 MHz.

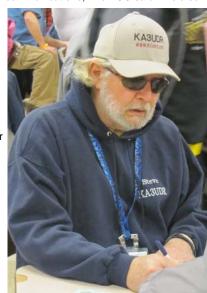
According to the *NAL*, released February 19th, an agent from the Commission's Dallas Office on January 21st used direction-finding techniques to positively identify the source of the interfering transmissions as Winstead's address. After monitoring the transmissions from the station for about a half-hour, the agent heard Winstead, an Amateur Extra class licensee, "replay multiple times short sentences or conversations that had just been transmitted, and occasionally speak the word 'George."

"Mr Winstead replayed recorded conversations so frequently that other licensees were unable to complete their conversations," the *NAL* stated. The agent estimated that Winstead disrupted approximately 20 minutes of conversation over a 30 minute period by making up to 15 minutes of short transmissions. The agent subsequently inspected Winstead's station, observing that his radio equipment was tuned to 7.195 Mhz.

"During the inspection, Mr Winstead showed the agent how he recorded and retransmitted other amateur licensees' communications," the FCC said. "He also

admitted that he intentionally interfered with amateur communications on 7.195 MHz and had an ongoing disagreement with another amateur licensee named George."

The FCC said the evidence in the case was sufficient to establish that Winstead had violated Section 333 of the Communications Act of 1934 and Section 97.101(d) of the FCC Amateur Service rules. Both sections prohibit willful and malicious interference to radio communications. Citing its Forfeiture Policy Statement and Section 1.80 of the rules, the FCC determined that Winstead was liable for a \$7000 forfeiture. "We caution Mr Winstead, however, that future violations of this kind may result in significantly higher forfeitures," the FCC stressed. Winstead has 30 days to pay or contest the fine.





42nd Annual Two Rivers ARC Hamfest

Sunday, April 27th, 2014 8 AM — 2 PM

Boston Spectrum, 6001 Smithfield Street, Boston PA 15135 Admission \$5.00

Mobile Check-In on WA3PBD/R 146.730 & 146.52 MHz Simplex

Amateur Testing Available — veteam@trarc.com or 412-203-2015

1st Prize: Yaesu FT-857D HF / 6 M / 2 M / 70 cm Transceiver 2nd Prize: Yaesu FT-9000R 2 M / 70 cm Transceiver

2nd Prize: Yaesu FT-9000R 2 M / 70 cm Transceiver 3rd Prize: MFJ-259C HV/VHF Antenna Analyzer

Computer Prize, 11:00 AM Prize, Other Prizes To Be Announced

For more information, Contact the Two Rivers ARC, PO Box 225, Greenock PA 15047-0225 http://www.trarc.net

UoSAT OSCAR-11 Celebrates 30 years in orbit

AMSAT-UK courtesy of Southgate Amateur Radio News

UoSAT-OSCAR-11 has now been in orbit for 30 years and remarkably its signal on 145.826 MHz FM (AFSK 1200 bps ASCII) is still being received.

OSCAR-11, also known as UOSAT-2, was designed and built by a team of engineers at the University of Surrey in Guildford, Surrey, UK as the successor to OSCAR-9 / UOSAT-1. It was launched from the Western Test Range at Vandenberg Air Base, in Lompoc, California along with LANDSAT-5 on a Delta 3920 rocket on March 1, 1984.

OSCAR-11 was the most rapidly designed OSCAR, going from inception to launch in only five months. It was also the first amateur satellite to carry a digital

communications package into Earth orbit, and the first to be controlled by a CPU running software written in the high-level programming language "Forth".

OSCAR-11 carries beacons in three amateur radio bands.

- The 145.826 MHz beacon transmits FM Audio Frequency Shift Keying (AFSK) 1200 bps ASCII data. It the early years it also transmitted a voice message from the DigiTalker experiment.
- The 435.025 MHz beacon transmitted either 1200 bps FM AFSK or 4800 bps PSK data. This
 beacon was used to downlink information from the Digital Store and Readout (DSR)
 Experiment, which includes CCD Earth image data, results from the Particle Wave
 Experiment, and engineering data from the RCA COSMAC 1802 CPU.
- The 2401.5 MHz beacon transmitted FM and PSK signals. Antenna polarization for all three beacon transmitters is left-hand circular (LHCP). Only the 145.826 MHz beacon is now operational.

Addition OSCAR-11 information: http://www.g3cwv.co.uk/oscar11.htm

HRD Software, LLC announced on March 1st that they have acquired the rights to the SAM Callbook CD and database from VIS. This Callbook CD began in the early 90's from RT Systems and was purchased by VIS. VIS transferred the rights of the Callbook CD to HRD at the Orlando Hamcation.

HRD will honor the current subscriber base and continue to send out the monthly CDs starting in March. They will also be developing a Windows interface for the Callbook. Windows 32, 64 bit and Windows RT versions are planned.

More information about the SAM Callbook CD will be on the HRD Website in late March.

— Richard Ruhl W4PC http://www.hrdsoftwarellc.com











☐ Elsewhere \$62

 $\hfill \Box$ Other (including Blind, Life, QST by First Class Postage — please contact ARRL for rate

Dues subject to change without notice

WIRELESS ASSOCIATION OF SOUTH HILLS, INC. Membership Application/Renewal for 2014



	the following type		•	☐ Membership Renewal
(check quarter ————) (check one j)	□ 1st Qtr Jan-Mar	☐ 2nd Qtr Apr-Jun	☐ 3rd Qtr Jul-Sept	☐ 4th Qtr Oct-Dec
☐ (F1) Full Membership:	\$20.00	\$15.00	\$10.00	\$5.00
☐ (F2) Full Membership < 18 or > 65 yrs of age:	\$10.00	\$7.50	\$5.00	\$2.50
☐ (A1) Associate Membership:	\$10.00	\$7.50	\$5.00	\$2.50
(FM1) Family Membership (\$3.00 x No. of household fa	amily members): \$	5		<u></u>
Name(s):	_			
me:	<u> </u>	Call Sign:		
dress:	_	License Class:		
y, State:	_	Expires On:		
me Phone:	_	Work Phone:		
nail Address:	_	Birthday:		
w Members Only: I do NOT want to be added to the Club E-Mail Reflector		ARRL Member?	☐ Yes ☐ No Family	ARRL Member? ☐ Yes ☐ No
I do NOT want to be added to the Electronic Newsletter Mailing [If you have an Email address, you Will be added to both lists UNLESS you che		Date:		
In you have an Email address, you will be added to both lists of LEGO you die	oose to Opt-Outj	Amount Enclosed	I: \$	
gnature:	_			
application so that his			N3RDV, VP/Treasure cKnight Drive	er
application so that his information is up to date		1120 M		
	Membe	dio Relay ship thro	League or ugh the	Sesociation .
Join the Ameri Renew Your WIRELESS ASSO Members of the WIRELESS ASSOCIATION membership in the American Radio Relay L Benefits for you: Joining and participating	Member OCIATION I OF SOUTH HILLS league, the Nation g in everything the	dio Relay rship thro OF SOUTH can start a new men nal Organization of F	League or ugh the HILLS, INC.	existing gh the club.
Join the Ameri Renew Your WIRELESS ASSO Members of the WIRELESS ASSOCIATION membership in the American Radio Relay L Benefits for you: Joining and participating	Member OCIATION OF SOUTH HILLS League, the Nation g in everything the e club: A few more	dio Relay reship thro OF SOUTH can start a new men nal Organization of Fe e League has to offer re shekels for our col	League or ugh the HILLS, INC. abership or renew an adio Amateurs, through the rincluding a QST suffers.	existing gh the club. oscription.
Join the American Renew Your WIRELESS ASSOCIATION membership in the American Radio Relay Laberefits for you: Joining and participating Benefits for the Just fill out the form below, include a check wireless c/o Markets Services (1988).	Member OCIATION I OF SOUTH HILLS deague, the Nation g in everything the club: A few more k or money order treasurer or r	dio Relay Reship thro South Can start a new men nal Organization of Re League has to offer the shekels for our color made out to WASH mail to: F South HILLS, INC. DV, VP/Treasurer th Drive	League or ugh the HILLS, INC. abership or renew an adio Amateurs, through the rincluding a QST suffers.	existing gh the club. oscription.
Join the Ameri Renew Your WIRELESS ASSOCIATION membership in the American Radio Relay L Benefits for you: Joining and participating Benefits for the Just fill out the form below, include a chec	Member CLATION I OF SOUTH HILLS League, the Nation go in everything the e club: A few more treasurer or rest Association of ark Stabryla N3RL 1120 McKnigli	Machel Park, and the park of the park, and the park of	League or ugh the HILLS, INC. abership or renew an eadio Amateurs, through fers. ARRL, and return all	existing gh the club. oscription.
Join the Ameri Renew Your WIRELESS ASSO Members of the WIRELESS ASSOCIATION membership in the American Radio Relay L Benefits for you: Joining and participating Benefits for the Just fill out the form below, include a chec WIRELES C/O Ma	Member OCIATION I OF SOUTH HILLS League, the Nation of in everything the e club: A few money order treasurer or r S ASSOCIATION OF ark Stabryla N3RL 1120 McKnigl Bethel Park, PA	dio Relay Reship thro South Can start a new men nal Organization of Fe e League has to offe re shekels for our cofe mail to: FOUTH HILLS, INC. DV, VP/Treasurer nt Drive 15102-2456 Call Sign:	League or ugh the HILLS, INC. sheership or renew an ladio Amateurs, through fers. ARRL, and return all	existing gh the club. oscription.
Join the Ameri Renew Your WIRELESS ASSO Members of the WIRELESS ASSOCIATION membership in the American Radio Relay L Benefits for you: Joining and participating Benefits for the Just fill out the form below, include a chec WIRELES C/O Ma Name: Address:	Member CLATION I OF SOUTH HILLS League, the Nation of the everything the club: A few more order treasurer or rest Association of the Stabryla N3RL 1120 McKnight Bethel Park, PA	dio Relay Reship thro of South can start a new men nal Organization of Re e League has to offer re shekels for our col made out to WASH nail to: F SOUTH HILLS, INC. DV, VP/Treasurer th Drive 15102-2456 Call Sign: Date of Birth:	League or ugh the HILLS, INC. abership or renew an radio Amateurs, through the rest. ARRL, and return all	existing gh the club. pscription.
Join the American Renew Your WIRELESS ASSOCIATION Members of the WIRELESS ASSOCIATION Membership in the American Radio Relay Lengths for you: Joining and participating Benefits for the Just fill out the form below, include a check wireless of Markets. WIRELES COMMERCESS ASSOCIATION MEMbership in the American Radio Relay Lengths for the Just fill out the form below, include a check wireless of Markets and Marke	Member CLATION I OF SOUTH HILLS League, the Nation of the everything the club: A few more order treasurer or rest Association of the Stabryla N3RL 1120 McKnight Bethel Park, PA	dio Relay Reship thro of South can start a new men nal Organization of Re e League has to offer re shekels for our col made out to WASH nail to: F SOUTH HILLS, INC. DV, VP/Treasurer th Drive 15102-2456 Call Sign: Date of Birth:	League or ugh the HILLS, INC. abership or renew an radio Amateurs, through the rest. ARRL, and return all	existing gh the club. oscription.
Join the Ameri Renew Your WIRELESS ASSO Members of the WIRELESS ASSOCIATION membership in the American Radio Relay L Benefits for you: Joining and participating Benefits for the Just fill out the form below, include a chec WIRELES C/O Ma E Name: Address: City, State, ZIP:	Member CLATION I OF SOUTH HILLS League, the Nation of the everything the club: A few more order treasurer or rest Association of the Stabryla N3RL 1120 McKnight Bethel Park, PA	dio Relay Research Park, and the start a new men and Organization of Figure 2 to 10	League or ugh the HILLS, INC. The sheet of the HILLS, INC. The sheet of the	existing gh the club. oscription.

Name & Call Sign: _

Name & Call Sign: ___

Remember: March Meeting is



our annual post-hamfest Pizza Night!

The WASHRag

Wireless Association of South Hills, Inc. Ron Notarius W3WN, Editor 3395 Rosewood Drive Castle Shannon, PA 15234-2546



NP2SH/B www.n3sh.org www.washarc.org

