



WASHRAGTM



VOLUME 20 Issue 10
OCTOBER 2018

Wireless Association of South Hills



N3SH WA3SH NP2SH/B

www.n3sh.org www.washarc.org



WASHRAG™



VOLUME 20 Issue 10

OCTOBER 2018

Next Monthly Meeting: Thursday, October 4th, 2018

The next meeting of the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.** will be on **Thursday, October 4th 2018**, in the Conference Room at the **St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park, by South Hills Village & Village Square** (map on the back page). The room is available at 6:30 PM. The meeting will be starting at 7:00 PM.

Subjects for the meeting include nominations for 2019 Officers, the 2018 Pennsylvania QSO Party, and other upcoming plans for 2018.

See you there!

Cover Photo: K3CMU & KE7FD working on K3CMU's GAP Vertical on September 15th

Cover Photo is courtesy of & © Copyright 2018 Curtis Turner KB3CMT

WASH 2018 OFFICERS

EXECUTIVE COMMITTEE:

President	Glen Roberts KE7FD
VP / Secretary	Harold Rosenberger K3HCR
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
Quartermaster	Harold Rosenberger K3HCR
WASH FM Net Manager	Chuck Bihun KC3ELA
WASHfest 2019 Committee	Carol Danko KB3GMN, Chairman
	Bill Hill W3WH, Co-Chair
Activities & Operating Events	Rick Bell KB3IAC
Ways & Means	Carol Danko KB3GMN
WASH 2M Contest Chair	Chuck Bihun KC3ELA
Field Day 2018 Coordinators	Rick Bell KB3IAC
	Bill Hill W3WH

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
Canonsburg	N3FB / R	443.650 MHz (+)	PL 131.8
St. Johns, VI	NP2SH / B	28.276 MHz	Propagation Beacon
Canonsburg	N3SH	144.390 MHz	APRS Digipeater

N3SH / WA3SH WASHNet, the weekly on-air net of WASH, meets every **Monday** Night, 8:00 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)**, a 501.C.3 not for profit organization.

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Editor & Publisher: Ron Notarius W3WN

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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 & operators of both the N3SH/R Repeaters 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 October 18th

The Next WASH VE exam sessions will be **Thursday, October 18th, 2018, 7:00 PM**, at the **WPXI Community Room**, 4145 Evergreen Road, Pittsburgh, PA 15214. Talk-in on the 146.955 MHz and 443.650 MHz repeaters. All examiners are ARRL VEC affiliated.

Pre-registration is not required. Walk-ins welcome!

But if you plan on attending the test session, please contact VE Team Liason Ron Notarius W3WN:

Telephone (412) 572-6723 or E-Mail: w3wn@n3sh.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)

Future test dates: February 24th, 2019
Remainder of 2019 TBA

Glen's Musings



So, another summer slips behind earlier dusk, and cooling nights. By the time you read this comment, **WASH** will be taking nominations for at least president. We encourage timid members to toss their hat in the ring.

It's been a privilege to serve as club president these past two years (two terms), and get to know each of you better than I might otherwise have done. **WASH**: A truly genuine great group of people all in one place.

— 73, Glen Roberts KE7FD
President, Wireless Association of South Hills, Inc.
N3SH / WA3SH / NP2SH/b

The ARRL Foundation is now accepting scholarship applications from eligible radio amateurs planning to pursue post-secondary education in the 2019-2020 academic year. Applications must be received by January 31st, 2019. Applicants for all scholarships must be active radio amateurs and must complete and submit the online application.

In addition to completing the online application, applicants must submit a PDF of their academic transcript from their most recently completed school year (emailed to foundation@arrl.org).

Awards winners typically are notified in mid-May by USPS mail and email.

On September 29th, the **WASH Breakfast Gang** met at our new/old haunt, **Vinnies**, 950 South Central Avenue (Route 910). This month's group included WB4GCS, KB3DCO, N3FB, KB3GMU, W3WH and W3WN. Morning topics included permanently moving to a Florida condo, thinking about retirement, working "the Game", SWL cards, losing the 160 meter "anchor" tree, what happened to the State Police at breakfast?, the Washington DC cesspool, credit where credit is due to Duquesne Light, "The dog ate my radio!", food and menus at Pa QSO Past & present, missing Suzy B – but "She was ready to retire", foster dogs, building a driveway like a highway, concrete vs. asphalt... and a whole lot more.

Our next gathering of the Gang will be on Saturday, October 27th, but... we're going to look into a new location. Vinnie's doesn't seem to have anywhere near the breakfast crowd that Suzy B's had, and it makes one wonder how long it will last. So, we are tentatively going to meet in October at the **Eat N Park**, on US 19 in McMurray (the "new" restaurant that was recently built), officially starting at **8:00 AM**. We are trying to reserve the small dining room for our get-together; more on that will be on the club e-mail reflector as the details are ironed out. So **please** let Jim WB4GCS know ahead of time if you are planning on coming. See you there?

Pa QSO Party 2018: The new organizers of the 2018 Pennsylvania QSO Party have updated the rules for this year. The updates can be found at <http://www.pagso.org/pa-qso-party-rules.html>. There are no significant changes this year, mainly some "clarification and clean-up work", according to Goody K3NG (the Pa QSO Party Association PR Dude – that's his signature!). If you have any questions, email him at anthony.good@gmail.com. The info@pagso.org email address will soon be active, but it's not there yet.

And as he has done for many years, Bud Trench AA3B is tracking the announced Operating Plans for fixed stations, portables, mobiles, and rovers. If you want your operation to be listed, email Bud at aa3b.bud@gmail.com, let him know what call(s) you'll be using and which county(s) you'll be operating from.

There are quite a few folks from the club who will again be operating in Pa QSO, either on their own or as part of a group. It is ALWAYS a lot of fun! So if you're interested, speak up, and we'll find a spot for you, somewhere! (Don't worry about experience or license class; how else can you get the experience if you don't operate?) More on Pa QSO at the meeting.

2019 Officer Elections: Nominations for 2019 Club Officers first take place at the October meeting. This year, we will be electing our Club President for a one year term, and Club Vice President/Secretary for a 2 year term. (VP/Treasurer is in 'odd' years, VP/Secretary is in 'even' years). Give it some thought, as it may be time for some fresh faces to step up and take on some of these positions. (Besides, if you don't come to the meeting, YOU might get nominated!)

Nominations will reopen at the November meeting, followed by elections.

If you are interested in a **WASH 2019 Pocket Planner**, give it some thought and cast your vote at the October 4th meeting. Glen KE7FD advises us that the cost for 50 pieces this year is \$1560, give or take a few bucks.

Doesn't it seem a little, ah, odd to have an Amateur Radio club meeting on National CB Day? (10/4!)

Curtis Turner KC3LVD has **updated his call**, to KB3CMT — congrats! (That is because those are your initials, not because you're a fan of Country Music Television, right? Just had to ask)



Join WASH or Renew your Membership Today! Membership Application on Page 13

Minutes, September 6th Meeting

Harold Rosenberger K3HCR, Vice President/Secretary, WASH

Glen KE7FD called the meeting to order at 19:03 hours. There were 19 members & 1 guest present.

The Pledge of Allegiance was recited, followed by a moment of silence was observed for recent Silent Keys & others deserving, and then introductions.

Motion to waive reading of the minutes based on the minutes printed in the newsletter by Rich N3SBF, second by Carol KB3GMN, passed unanimously.

Committee reports:

Treasurer (N3RDV): Read. Motion to accept by Bill W3WH, second by Carol KB3GMN and passed unanimously.

Secretary (KB3ERQ): No report.

VE (W3WN): Next exam session will be October 18th, followed by WASHFest 2019. Thanks as always to N3FB & WPXI for providing us with a testing site.

Repeaters (N3FB): Repeating!

WASHNet (KC3ELA): Reports from the net of good turnout, lots of comments, all appears to be going well.

N3SH.ORG (N3NWR): No report.

Contests (K3VX): Reminder that Pa QSO is the 2nd weekend in October. We have a group from the club going to Prince Gallitzin State Park in Cambria County; Carol & Richie will be operating from Clarion again; N3ZK, N3FB and N0VLR are going to Warren.

Bill & Larry & several other operators are going to VP9 Bermuda for the ARRL 160 contest, tentative call VP9I.

Reminder that the "Route 66 On The Air" special event starts next week.

Public Service (AB3ED): NU3Q is looking for help for the City of Pittsburgh Great Race on September 29th. The Tour de Cure Bike Race is on September 15th; more information available from AB3ED

Ways & Means (KB3GMN): Voluntary membership contributions underway and will be accepted after the meeting.

Newsletter (W3WN): Out. Thanks to all of the contributors!

President (KE7FD): None.

Old Business: Generator: Further discussion on purchase of a generator vs. renting, and how & when we would use a generator, along with some maintenance issues.

New Business: Request from Frank N3FB for the club to permit him and Paul N0VLR to borrow the Tower Trailer for use at the N3ZK Pa QSO Party operation this year. Concerns were raised regarding proper use, liability concerns, and precedents. During the discussion, it was revealed that we currently lack a spare tire for the trailer!

Motion to let Frank & Paul borrow the Tower Trailer for the Pa QSO Weekend, pending final details including proof of liability insurance, by Ron W3WN, second by Bill W3WH. Vote taken by count of hands; passed unanimously, with Frank N3FB and Lori KB3GMU abstaining.

Good of the Order: None.

Motion to Adjourn by Carol KB3GMN, second by Bill W3WH, and carried unanimously.

Meeting adjourned at 20:05



WASH Spotlight: Halloween

No, this picture is probably not what you think... but is just in time for Halloween,,,

Seems that a local Amateur is in the process of building a deck, and decided to place a Halloween decoration in a "shallow grave" under the deck structure...

50 or 60 years from now, someone is due for a big surprise!

Now we're not going to say who this was, but suffice to say he doesn't need to worry about legal representation...

Photo courtesy of and © Copyright 2018 [redacted]



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](mailto:newsletter@n3sh.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 **Vinne's**, Route 910 at the intersection of Route 519 at US 19, 1 mile North of Downtown Canonsburg. Start time is about 8 AM until ????. Monitor 146.955 & 443.659 for talk-in or any last minute changes. All are welcome, **WASH** members or not, amateurs or not!

Wireless Association of South Hills Membership

AA3GM
AA3XY
AB3ED
AB3NM
AE3DL
K3CMU
K3HCR
K3JDS
K3SGT
K3VX
K3WJL
KA3VXM
KB3BYA
KB3CMT
KB3DCO
KB3ERQ
KB3GMN
KB3GMU
KB3IAC
KB3IVX

KB3JHR
KB3ORO
KB3SQZ
KB3YCX
KC3ELA
KC3GMM
KC3KMY
KC3LVD
KC4WTT
KE7FD
N0VLR
N1NCZ
N2QIV
N3BPB
N3DFK
N3FB
N3KFD
N3RDG
N3RDV
N3SBF

N7TDX
NU3Q
NY9H
W3BBX
W3WH
W3WN
WA3JFL
WA3PYU
WA3VSS
WB3CAI
WB4GCS
WO3Z
Barbara
Udren

WASH FL
KA3UPY/M
W4ZE
WASH NE
N0PEU
WASH OR
N0WPV
KB3NVL
KB3NVM
WASH OH
N8DPW

WASH TN
K3OL
KE3XB
N3YPB
WASH TX
NB3C
K3LGM
KB3IJX
Jane Wagner
WASH VI
NP2JF

Silent Keys

AB3KA
K3EED
K3LIE
KA3NMG
KB3ENX
KB3FNM
KB3FQT
KB3JHQ
N3CZZ
N3FZ
N3HKQ
N3KEH
N3OBD
N3RNX
N3SKR
N3SRC
N3ZEL
N3XFE
W3ZLK
WA3JPP

If your call should be listed here & isn't, please contact Mark N3RDV

Through September 30th, 2018
List compiled by
Mark Stabryla N3RDV, Vice President/Treasurer

2018 /19 WASH Upcoming Events Calendar

Club Meetings & Other Significant Events — Subject to Change

October 4 th	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park
October 6 th & 7 th	53 rd California QSO Party	http://www.cqp.org
October 13 th & 14 th	62 nd Pennsylvania QSO Party	http://www.paqso.org
October 18 th	WASH VE Exams	WPXI Community Room, 4145 Evergreen Road, Pittsburgh
October 27 th & 28 th	CQ World Wide DX Contest SSB	https://www.cqww.com
November 1 st	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park
November 3 rd - 5 th	ARRL Sweepstakes CW	http://www.arrl.org/sweepstakes
November 4 th	WACOM Hamfest	Printscape Arena, 114 Southpointe Blvd., Canonsburg PA New Location
November 17 th - 19 th	ARRL Sweepstakes SSB	http://www.arrl.org/sweepstakes
November 24 th - 25 th	CQ World Wide DX Contest CW	https://www.cqww.com
November 30 th — December 2 nd	ARRL 160 Meter Contest	http://www.arrl.org
December 8 th - 9 th	ARRL 10 Meter Contest	http://www.arrl.org
December 29 th - 30 th	Stew Perry Topband Challenge	https://www.kkn.net/stew/
January 1 st	Straight Key Night	http://www.arrl.org

Scouting organizations are still [registering](#) to participate in the 2018 Jamboree on the Air ([JOTA](#)) over the October 19th – 21st weekend. With about 1 month to go, JOTA Coordinator Jim Wilson, K5ND told ARRL that registration is “probably on target” at this point. US registrations stood at 235 as of the end of last week. Right after JOTA 2017, 489 US locations had signed up, although that included both Jamboree on the Air and Jamboree on the Internet (JOTI) participants, which, Wilson said, the Boy Scouts of America (BSA) have “remained steadfast” in considering separate events, although, he noted, this is not the case at the world level.

“We’ve put in place a number of aids to help people improve their on-the-air experience, which will be challenging without sunspots,” Wilson pointed out. “We’ve provided a [video](#) of how to work HF for JOTA. We’ve also provided a [quick reference card](#) to help Scouts during the QSO.” [Recommended JOTA frequencies](#) are listed on the K2BSA website. “Operators should note that these frequencies are starting points to find QSOs,” Wilson added. “They can also turn the dial to find other stations on the air. It’s not like a repeater.” A [list of Girl Scout activities](#) supported by JOTA-JOTI has also been posted.

Held each year on the third full weekend in October, JOTA is the world’s largest Scouting event. JOTA uses Amateur Radio to link Scouts and hams around the world. Scouts of any age and gender can participate, from Cub Scouts to Boy Scouts and Venturers. Radio amateurs at the local level are encouraged to work with a scout council or unit to set up a JOTA station or arrange to have Scouts visit their shacks. “You can also participate just by making QSOs with the many JOTA stations that will be on the air,” Wilson said.



"Seen" at the September Meeting

Photos Courtesy of and © Copyright 2018 Ron Notarius W3WN



N3SBF, WA3PYU, KA3VXM, KB3GMU



K3HCR, KB3DCO



KB3GMU, N3FB



KB3BYA, AA3XY



KB3CMT, KB3BYA



KE7FD, N3RDV, K3HCR



KB3DCO, WA3PYU, KA3VXM, KB3GMU, N3RDG

Pittsburgh Antique Radio Society Going Strong

Don Merz N3RHT, President, PARS

Mt. Lebanon, PA, September 6th, 2018 --The **WASHRag** was kind enough to let me use this space to promote PARS--the Pittsburgh Antique Radio Society. You have seen us at **WASHfest** where we always have a recruiting table and at many of the other local hamfests. So maybe we are in the back of your mind. But I wanted to give you some more info in case this is a branch of the radio hobby that you'd like to explore.

PARS was formed almost exactly 30 years ago. At the the time some prominent people were involved like Richard Brewster and former Pittsburgh radio personality Bill Beal. One of the original goals was to save the Conrad Garage from which Frank Conrad made the first scheduled radio broadcasts. Conrad worked for Westinghouse and his garage ham station evolved into KDKA. At that time PARS met under Westinghouse sponsorship on Westinghouse property.

Sadly, after an initial flurry of interest, the Conrad property was sold, and Westinghouse also sold the property PARS was using so the whole thing fell apart--a great opportunity lost. The garage itself has been dismantled and is in storage. But no one has stepped up to lead an effort to get a communication museum going in the city that gave birth to broadcasting. It's a real crime. It annoys me that Baltimore has a Communications museum and even Huntington, West Va has one. But not Pittsburgh. That is how short sighted our leaders have been.

Anyway, I digress. Though the initial preservation efforts of PARS fell short, PARS itself has remained strong and grown. Membership hovers between 125-160 consistently. We publish a genuine printed newsletter 4 times a year and we meet 8 times a year including the Tri-State Radio Fest (TSRF) which we have sponsored for 15 years--easily the largest vintage electronics event in the region.

Two of our annual meetings are clinics where 4-5 teams set up portable test benches and anyone can bring in their antique radio to be tested and repaired for FREE. Two of our other meetings are auctions--the aforementioned TSRF and our Fall Auction which is coming up here on September 22. Then we have an annual picnic at North Park and an annual Holiday Luncheon for our long-suffering families.

The club is populated by a really deep range of talent. Some of the best old radio guys in the USA are members of PARS and show up at our clinics--like Ron Blobner, who used to be in business fixing radios with Ed DeHart of NHARC, Joe Patrick who retired from his radio repair business a few years ago, and Don Polito, the "tube guy" that you see at all the local hamfests. These guys and a few others are top talents. If they can't fix it, it can't be fixed.

About a third of our membership are licensed hams including me N3RHT and vice President Ron Blobner NJ3R, Brian Roberts and many more--all familiar faces from **WASHfest** and the other hamfests. The rest of the guys collect radios for every conceivable purpose. Some guys love to restore them. Others just like to look at them and don't care if they work. We have radio collectors, test gear lovers, tube audio guys--the works.

PARS meetings are always listed on our web site at pittantiqueradios.org. Most meetings are at the Brentwood Presbyterian Church at 3725 Brownsville Road. Annual membership is \$20 and includes four 20-page printed newsletters mailed to you each year. Every meeting features a free flea market where any member can bring in any vintage electronics and set it on a table for sale. Meetings start at 10 and go to 2PM or so. But doors open at 9 for the flea marketers. Each meeting features a contest with a theme like "Novelty Radios" or "Philco" or "Anything Made by "Hallicrafters" and so forth. A Subway sandwich lunch can be purchased for \$6 at 11:30. Most meetings get 35-50 attendees. TSRF gets about 450 attendees from all over, fills 70 tables and has a lengthy auction.

Our next meeting is October 13th in Brentwood. It is one of our free clinics, and the contest is 'Radios with Names starting with the letter "D"'.

Come by and check us out! You can always contact me anytime about PARS at 412-735-4959 or n3rht@yahoo.com. I also maintain memberships in **WASH**, Skyview, NHARC and WACOM just to stay in touch with the local ham community.

All the best to you!

On September 15th, several WASH members travelled to Dan K3CMU's home to give him a hand putting up his new GAP antenna. Our cover shows the installation in progress.

The left photo shows Glen KE7FD checking out the antenna settings wiht an antenna analyzer.

The right photo shows the completed antenna.

Thanks to all who lent a hand!

**Photos courtesy of and © Copyright 2018 Curtis Turner
KC3LVD KB3CMT**

Eighty Four, PA, September 25th, 2018 — Some time ago, we had a discussion about coaxial connector waterproofing techniques. I shared my algorithm of multiple layers of tape over coax seal over multiple layers of tape.

Over the weekend, I had the occasion to disconnect an antenna from an antenna combiner. the connectors were treated with the above algorithm.

The combiner has been in the air over 20 years. The antenna and it's connector have been in the air over 5 years.

Both connectors looked brand new!

— 73, Jim Sanford WB4GCS



W6CBA Continues to Bust Stereotypes

David Whiting, Orange County Register/SCNG

Photos by Mark Rightmire, Orange County Register/SCNG

Fullerton, CA, September 20th, 2018 -- Walk into Vi Barrett's living room and you walk into an era when FBI guys were called "G-men," women were "dolls" and a "dame with good gams" might be favored over other "skirts." At least that's the stereotype. Fortunately, Barrett was around in the 1940s to set people straight and continues to explode stereotypes today.

But these days, it's more about blowing up perceptions over age – she's 89 – than busting gender barriers. On a desk in a corner of her living room in Fullerton, there is a contraption the size of a fist made of chrome and two tiny Lucite paddles. Barrett reaches out and with her thumb and forefinger and bats the little paddles back and forth. Instantly, the unmistakable dit-dit-dit-dah-dah-dah of Morse code fills the room.

Next to the ultra-modern chrome gizmo, Barrett picks up a little brass, steel and wood machine called a "straight key" that her father gave her more than 70 years ago. Barrett, you see, is a long-time expert in Morse code, can still tap 15 words a minute. And when you discover her background, it all makes sense.

As a teenager in Los Angeles, Barrett fell in love with ham radio and became one of the few women to enter what was then considered a man's world of electronics.

Electric Avenue

When her uncle first showed off his ham radio, Barrett was a 14-year-old Girl Scout and music major growing up in South Central. Back then, she didn't give a whit about the dials, knobs and meters that attracted some guys to ham radio. What Barrett saw was a way to communicate with the world. "I thought it was so exciting to be able to talk to someone in a different city or a different state," Barrett recalls, her eyes dancing at the memory. "Right away, I started saving my babysitting money. I wanted to buy a receiver so bad."

Barrett heard about amateur radio's annual event where hams gather, set up antennas and invite the public. In 1946, Dad agreed to take her to Baldwin Hills where ham operators carried their rigs.

"Are you a ham?" one gentleman asked.

"No," Barrett confessed.

"Would you like to be?"

"Oh, would I!"

At that moment, Barrett found her first mentor. Then she found another. And another. The teenager studied theory, how to operate a receiver, how to use a transmitter. She mastered Morse code. In 1947, she sat next to the ham radio operator who patched Thor Heyerdahl's location aboard the Kon-Tiki to Washington, DC. The following year, at age 17, she made her way to the Federal Building in downtown Los Angeles and took her ham test. She was the only female in the room.

A few hours later, she also was the only female to walk out with a ham radio license, call letters "W6CBA." A few days later, Dad climbed onto the roof and set up an antenna. Barrett's first call went to Colorado Springs. As far as Barrett was concerned, it felt like reaching Antarctica.



Inside the FBI

Wrapping up her senior year in high school, Barrett took a ham radio class. Soon, the instructor asked Barrett to teach Morse code she was so good. After high school, Barrett heard the FBI was hiring and convinced her mother to take her back to the Federal Building. She was hired for the clerical pool and sat before a big Underwood typewriter.

But that was only the beginning of what became a meteoric rise with the FBI. Word got out that the young typist was a speedster with Morse code, that she had a ham radio license and was fast and efficient with radio voice communication. Soon, she was called to the office of the big boss, the agent in charge.

Unsure what the meeting was about, Barrett stood her full 5-foot-1 height and waited for the chief to talk. "Would you," he asked, "like to try the radio?" Barrett knew the offer meant she would become one of the first female FBI dispatchers in history. She remembers, "Those were wonderful words for me. 'A bank robbery is a lot different than chatting with somebody. It was a wonderful, exciting job.'"

Her favorite case was the Max Factor extortion scam in which the suspect demanded money in exchange for not blowing up a store. The blackmail money was left in an orchard by an agent who resembled the tycoon. When the suspect grabbed the dough, agents jumped down from trees and nabbed the man. Barrett recalls the perp walk in the hallway and laughs, "He was a pipsqueak."

Global connections

After getting married in 1954, Barrett left the FBI, but not her beloved ham radio. Like his father-in-law before him, soon her husband was on the roof erecting an antenna. "Don knew that if he married me, I was going to have my ham radio station," Barrett chuckles. "He knew he was getting a double package: wife and radio operator."

While her husband ran his and his dad's service station in Los Nietos, Barrett worked as switchboard receptionist for the East Whittier School District and raised the couple's two sons and daughter (today, there are four grandchildren, all boys). For two decades, the couple also volunteered with the Whittier Police Department while Barrett continued to volunteer as a ham. In Whittier, she allows, "I did everything but carry a gun." During the 1984 Olympics, she used her ham radio to help agencies connect. During the 1987 Whittier Narrows earthquake, she ensured hospitals coordinated.

"They call us a backup communication system," she allows, "but we often end up being the primary with our radios."

She's helped thousands of patients aboard hospital ships connect with relatives. She's helped soldiers talk to their parents.

She's also shared grief.

Barrett recounts the time one young man aboard a hospital ship in the South China Sea talked to his parents. "They were so thrilled to hear from their boy in Vietnam." Later, Barrett called back the parents and asked if they'd like another patch to their son. The father quietly answered, "Our son was killed in action."

Still, for Barrett service never stops.

In her living room, she has her transmitter, receiver, microphone and that chrome Morse code key ready. But it's what's hidden above that impresses. It's no coincidence that Barrett is on the top floor of her building, just as it's no coincidence that there's a 62-foot wire antenna strung in the attic. Today, perhaps Barrett will connect to places she's already electronically visited, countries such as Greenland, Tanzania, Laos. Or maybe she'll check out Antarctica.

Mind you, talking to Antarctica is no longer just a dream. With 194 countries documented, Barrett already has chatted with hams on the world's coldest continent.

Accordingly, I'll leave you with this: Dit-dit-dit-dah-dit-dah.

Morse code for "end of contact."



US ARDF Team Tops Its Own World Championship Medal Count in Korea

Joe Moell KØOV via the American Radio Relay League

Newington, CT, September 11th, 2018 – Team USA took home 10 medals from the just-concluded 2018 Amateur Radio Direction Finding (ARDF) [World Championships](#), the highest medal count since the US team began participating in the international event 20 years ago. The 19th World ARDF Championships took place September 2 – 8 near the resort city of Sokcho in Korea's Gangwon Province. Hidden transmitters were scattered in forests encompassing 1,000 acres or more. The US has been represented at every ARDF World Championships event since 1988, with competitions taking place every 2 years.

On September 4, the first day of competition, the US won its first medal of this year as Ruth Bromer WB4QZG, captured individual 3rd place in the W60 category in the 80-meter [foxoring](#) competition. The next day, the team's M50 competitors — Vadim Afonkin KB1RLI, Nicolai Mejevoi, and Bill Wright WB6CMD — won bronze medals in the classic 2-meter team competition. That same day, the team of Ken Harker WM5R — the Team USA Captain and the new International Amateur Radio Union (IARU) Region 2 ARDF Coordinator — and Joe Burkhead won bronze in the M40 category on 80 meters. Team awards are based on the aggregate scores of individual team members, who are not permitted to assist one another on the courses.

Afonkin took an individual gold medal for his 1st place finish on 80 meters in the M50 category. In the same event, the M50 category team of Afonkin, Mejevoi, and Wright came away with bronze medals in the 80-meter team competition.

This marked the second time that ARDF Team USA had competed in Korea. Before traveling to the competition, a [weekend training camp](#) for Team USA members and other ARDF enthusiasts took place August 10 – 12 at Mt. Pinos in the Los Padres National Forest of California.

[Complete results](#) of the 2018 ARDF World Championships are posted on the Deutscher Amateur Radio Club website. For more information on ARDF, visit the [Homing In](#) website of US/ARRL ARDF Coordinator Joe Moell KØOV.



ARDF Team USA 2018 members display their medals. (Front, from left to right) Alla Mezhevaya, Vadim Afonkin KB1RLI, Ruth Bromer WB4QZG, Joseph Huberman K5JGH, Ken Harker WM5R, and Lori Huberman. (Rear, from left to right) Bob Cooley KF6VSE, Eduard Nasybulin, Nicolai Mejevoi, Bill Wright WB6CMD, and Joseph Burkhead. [Mindy Johnson photo courtesy of the American Radio Relay League]

Sundown for Surplus Stores?

Randy Cook K6CRC

Los Altos, CA, September 6th, 2018 -- I have always enjoyed tinkering. I have hobbies that involve building and fixing things -- audio, Ham radio and an old car. Those hobbies mean gathering bits and pieces for projects, and usually hitting the junkyard or electronic surplus stores. And, cleaning the dust off after the trip. Always a lot of dust.

Fixing something or starting a new project meant a Saturday morning outing for parts. No doubt the place had what you needed, but finding it was an adventure. Sometimes the owner or clerk knew exactly what I was looking for, but not quite sure where it was. I spent an hour crawling through attic storage in a junkyard locating that rare Zenith carb. And, the owner was right, he did have one, and just one. When I restored a Harman Kardon tube amp, the high value power resistors needed were found on the back of a shelf at a surplus store, on top of the stack of Tektronix scope plugins.

However, surplus sales is a tough business, as so much will never have value, except as scrap. Modern electronics is now high volume SMT components and programmable parts, not through-hole and standard logic that gave us tinkerers a chance to easily create. Most old test equipment has been scrap metal for some time now. How many times have you seen it rain at an outdoor swap, and the vendors rushing to get stuff covered? But, they just left out the old HP test gear and Tek Scope tube plugins in the weather.

Starting 20+ years ago, the signs of change came. eBay set the "prices" for good stuff. Hagglng at swaps became "according to last eBay auctions."

At the same time, electronic/Ham swaps hit the downward slope of the curve. No more Dynaco amps or boat-anchor ham gear. Just old PC motherboards and boxes of software obsoleted when Windows 95 was introduced. I haven't been to a swap in 10 years, but assume things have not improved.

Soon after, the death of electronic surplus stores started. Most around here closed in the last decade. Last place locally is looking for a buyer. My favorite Euro car junkyard just closed, the land will be part of a condo complex. Someone will turn the lights off on the whole "surplus" industry soon.

"Maker movement" is a possible rebirth of the tinkering that made Ham radio such a big hobby. Exciting new tools and smart young people are rushing products into many old-line hobbies, such as Ham radio. Likely 3D Printing and Arduinos will be among the tools. No piles of aerospace surplus stuff to sort through, no old HP or Tek test equipment needed.

At some point, I may be able to "print" that Zenith carb or Collins knob if needed for a restoration. So, one era ends and another begins.

Dusk for the dust...

Is Man-Made Noise Really Vertical?

Ono Benschop VK6FLAB

Bayswater, WA, Australia, September 29th, 2018 -- One of the often repeated attributes of noise and antennas is that man-made noise is vertically polarized and that is why a vertical antenna sounds noisier than a horizontal dipole. It's an interesting thing to say, but is it true?

Let's start with what constitutes man-made noise. Cars driving past, solar panel inverters, pool pumps, high-tension power lines, garage door openers, broadband internet modems, LED lights, lawn mowers, leaf blowers, plasma televisions and so on. The more you think about this, the more noise makers you discover.

So, are these noise sources all aligned in the same way, making the same noise?

Clearly not. There is no alignment standard for installing a lamp, how to align your lawn mower, which direction to drive, what angle to point your garage door opener, so the statement that man-made noise is vertical is clearly bogus.

That doesn't mean that the rest of the statement is also wrong. A vertical antenna in an urban environment often sounds much noisier than a horizontal one, sometimes by several dB.

So what's going on?

One suggestion is that the difference lies in the antenna itself. What if both noise sources, horizontal and vertically polarized were the same, but the antenna heard them differently, how would that look?

For starters, a horizontal dipole has a higher sensitivity at a higher angle than a vertical antenna does. So anything arriving at a low angle is picked up by the vertical, but not by the horizontal dipole.

Continued on Page 12

VP6D Update

Gene Spinelli K5GS, Team Ducie

Tucson, AZ, September 27th, 2018 -- Today while doing final technology testing before packing several pieces of VP6D equipment in checked luggage we discovered a problem.

If you follow us on Twitter you saw two test tweets. We had planned to, and previously tested, automatically transferring Twitter tweets to our VP6D Facebook page using a Twitter / Facebook Application Programming Interface (API) provided by Facebook. Our tweets will originate from the Braveheart or the island using the Garmin inReach.

Today we learned Facebook discontinued their API (the bridge) that connected Twitter to Facebook. Specifically, the issue has to do with Facebook's lockdown of its API platform — an overhaul that's been underway following the Cambridge Analytica scandal, where as many as 87 million Facebook users had their data improperly harvested and shared.

We have arranged for tweets to be transferred to VP6D's Facebook page. However, due to time zone differences there may be a time delay between Twitter and Facebook updates. If you follow us on Twitter you'll receive our tweets without delay.

We were disappointed to discover this change, but we have a workable solution.

Braveheart is ready to sail, and the VP6D team is ready to soon begin their journey.

73, Team Ducie – 2018

Please direct questions to: info@vp6d.com

VP6D Web page: <https://www.vp6d.com>

VP6D FaceBook page: <https://www.facebook.com/VP6D-Ducie-2018-1470984209616170>

VP6D Twitter page: https://twitter.com/VP6D_2018

Philadelphia, PA, October 2nd, 2018 — Researchers at Drexel University's College of Engineering [report](#) a breakthrough in nanomaterials technology that promises to make installing an antenna as easy as applying sunblock or bug spray. The University reported the research in a *Drexel/NOW* article, "Drexel's Spray-On Antennas Could Be the Tech Connector of the Future." The advance could mean wearable and invisible antennas that could find their place in the next generation of the Internet of things (IoT), and even have Amateur Radio applications.

"The ability to spray an antenna on a flexible substrate or make it optically transparent means that we could have a lot of new places to set up networks," said Drexel Wireless Systems Laboratory Director and engineering professor Kapil Dandekar, a co-author of the research published recently in *Science Advances*.

"This technology could enable the truly seamless integration of antennas with everyday objects which will be critical for the emerging Internet of things," Dandekar said.

In their paper, Dandekar and his colleagues laid out a method for spraying invisibly thin antennas made from a type of two-dimensional metallic material called MXene — a conductive, two-dimensional titanium carbide material — which can be dissolved in water to create an ink or paint. They said the exceptional conductivity of the material enables it to be employed as an RF radiator even when applied in a very thin, nearly invisible coating. The MXene antennas perform as well as those now being used in mobile devices, wireless routers, and other devices, the Drexel researchers said. In addition, the MXene materials were shown to be 50 times better than graphene and 300 times better than silver ink antennas in terms of preserving the quality of RF transmission.

"Current fabrication methods of metals cannot make antennas thin enough and applicable to any surface, in spite of decades of research and development to improve the performance of metal antennas," said Yuri Gogotsi, director of the A.J. Drexel Nanomaterials Institute, who initiated and led the project PhD. "We were looking for two-dimensional nanomaterials, which have sheet thickness about 100,000 times thinner than a human hair; just a few atoms across, and can self-assemble into conductive films upon deposition on any surface. Therefore, we selected MXene as a candidate for ultra-thin antennas."

"The MXene antenna not only outperformed the macro and micro world of metal antennas, we went beyond the performance of available nanomaterial antennas, while keeping the antenna thickness very low," said Babak Anasori, a research assistant professor in the A.J. Drexel Nanomaterials Institute. "The thinnest antenna was as thin as 62 nanometers — about a thousand times thinner than a sheet of paper — and it was almost transparent."

Unlike existing nanomaterial fabrication methods that require several steps, the Drexel research team's spray-on antennas can be fabricated in a single step by airbrush spraying a water-based MXene ink, Anasori said.

— DrexelNow, courtesy of ARRL

DX News Briefs



3DA0AO Postponed/Cancelled: "Due to circumstances beyond his control, Pista HA5AO, will return to Hungary sooner than planned. He will leave his equipment in the country and return at a future date. Unfortunately, he is not able to get on the air or participate in his planned humanitarian projects. Donors to his project will receive a refund." — K5GS

5A0YL is a new operator, now QRV from Tripoli. **5A1AL** is mentoring her. More information to be available "soon" on QRZ.COM

6O100 was recently issued to EP3CQ, who expects to be QRV from Mogadishu on 15 & 20 SSB as soon as his station is set up. More information to be forthcoming.

9X0T will be QRV through 10 October, CW SSB & RTTY. On FT8, they are using **9X0Y**. More information at <http://www.i2ysb.com/idx> QSL via I2YSB

LZ1GC is currently QRV as **5W0GC** from Apia (OC-097) through 14 October, and then as **YJ0GC** from Port Vila, Efate Island (OC-035) 15 October – 4 November. CW SSB & RTTY, 160 – 6 with emphasis on 160 & 80. More info at <http://www.c21gc.com> QSL via LZ1GC

Look for **E6Y** from Niue (OC-040) 6 – 15 October, 160 – 6 including 60 meters, CW SSB RTTY & FT8 with emphasis on the low bands and EU. More info at <https://quakedxpeditons.wordpress.com> QSL via ZL3PAH

P4/NN5E and **P4/NT5V** will be QRV from Aruba (SA-036) 12 – 19 October, 80 – 10, CW SSB RTTY & FT8. QSL via their home calls.

Look for **VK9XG** 16 – 30 October, 160 – 10, CW SSB FT8 and possibly RTTY. QSL via G3TXF

TU6MH will be QRV 20 – 29 October, CW & SSB on multiple HF bands. QSL via DF3FS – DF3FS

7Q6M will be QRV 23 – 29 October, 160 – 10, including the CQWW DX SSB contest. QSL via K6ZO

FY5KE will be QRV during the CQWW DX SSB Contest, 27 – 28 October, from the RACK radio club station.

8P5A will be QRV during the CQWW DX SSB Contest, 27 – 28 October. There will be some antenna testing and casual operating before & after the contest on 160 – 10, CW & SSB. QSL via NN1N – W2SC

Members of the FRC will be QRV as **VP5W** from Providenciales (NA-002) during the CQWW DX SSB Contest, 27 – 28 October. QSL via KD3TB

VP2MUW will be QRV from Gingerbread Hill 17 – 23 November, 80 – 10, CW & SSB. More information at <https://vp2muw.com> QSL via OQRS

QSL Routes

3W9JK via ClubLog	IR9D via IW3RUA	TO6OK via OK6DJ
3Z100ZHP via SP9KGC	KG4SS via K4MIL	TU3MH via DF3FS
4U1A via UA3DX	LY7Z via LY9Y	V31VP via WB0TEV
5P8X via OZ8X	M7C via M0OXO	VO2VC via VE6CMV
5Q2T via OZ0J	MZ1SWL/A via M5DIK	VK9XT (2006) via W0YG
5W0GC via LZ1GC	OE18XKJ via OE7MPI	VK9XG (2018) via G3TXF
8Q7IP via HA3JB	OG7F via OG2K	VK9XT via N4GNR
8Q7SD via JF2SDR	PJ4Q via W4PA	VP5W via KD3TB
9A61AA via 9A2AA	SD7W via DL2SWW	WG4FOC via K3TW
CR3DX via OM2VL	SN100RP via SP8YWK	WH0RU via JG7PSJ
E6Y via ZL3PAH	SP100PAZ via SP6PAZ	XV9RH via OE1ZKC
EA8DED via OH2BP	T71C via T70A	XV9WJR via WA7WJR
GX4BJC/A via M5DIK	T88RR via JA6UBY	XW1IC via E21EIC
HZ87ND via ClubLog	TI5/KL9A via W2GR	YJ0GC via LZ1GC
	TI7W via W44FS	ZD9CW via LZ1JZ
	TM3Z via F4DSK	
	TM88FU via F8KHP	

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



WASH Classifieds

Information shown here is as supplied to the **WASHRag**. 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 **WASHRag** or the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.**

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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 <https://www.jeffk1nss.com> !

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



MORE ITEMS FOR SALE:

- * Kenwood TS-2000X, approx. 1 year old, extremely clean, never has transmitted. A 10 out of 10 rig. With Box, instructions, power cable, and extras including Heil Goldline mic, Heil boom with deskmount, shock mount, cable, Yaesu SP-2000 speaker (with cables), ARCP-2000 software, Astron SS-35M power supply, Outbacker 80 – 10 mobile antenna with a tripod for the base station: Everything you need to get on the air, just add coax, a desk, and a chair! **Entire package \$1200 including free shipping from Texas.** This is as clean as they come. If you want cleaner, you'll have to purchase new from a dealer. You'll pay \$600 more JUST FOR THE RIG, than for the package I'm offering. AND, IT WON'T BE ANY CLEANER FROM A DEALER.
- * Astron SS-30M power supply. Like new. \$100 shipped from Texas.
- * Yaesu SP-2000 speaker. With box, like new. \$135 shipped from Texas.
- * Bird 4303 Wattmeter. Like new condition. This is a unique meter in that it has 2 elements that can be switched in and out. For instance: You can measure 2-30MHz, and then switch in 144-148MHz just by flipping a switch on the front of the unit.
- * Comes with: 2-30MHz 100W slug, 2-30MHz 250W slug, 2-30MHz 1000W slug, 2-30MHz 2500W slug. Not a mark on it, \$275.00 shipped from TX.
- * MFJ-259 SWR Analyzer, 1.8-170MHz. The battery case needs replacing, BUT IT WORKS FINE AS IS. Not corroded at all, but the battery case plastic is a little brittle, still holds batteries and works fine on battery power or 12VDC. \$100.00 shipped from TX. Yeah, yeah, I know, I know, MFJ. But it's really a nice unit and I've never had a problem with their stuff.
- * Icom IC-PCR1000, SDR receiver. Receives from below AM all the way to daylight. A first generation SDR radio, pretty cool, comes with software. \$50.00 shipped from TX.
- * Icom ID-800 2M/440MHz FM/D-STAR mobile radio. Very clean, complete with box. \$225.00 shipped from TX. Comes with a copy of the programming software, but you'll need to purchase the programming cable yourself. I've seen them on E-Bay CHEAP.
- * Kenwood TH-D74. Kenwood's latest. Comes with an external hand mic, and antenna. 2 batteries TOTAL included. \$350.00 shipped from TX. Comes complete with box & instructions. Like new, still has the protective film on the display.
- * Chameleon CHA-F-LOOP antenna. Used indoors as a receiving antenna, never transmitted into. \$250.00 shipped from TX. I'll also include a tripod to put it on. Also comes with a carry bag. Great for receiving, or for a mini DXpedition to a park or the mountains.
- * Outbacker mobile antenna. Covers 80-10M, comes with a tripod for outdoor use. The tripod acts as a ground plane, and the whole thing works quite nicely. \$250.00 shipped from TX.
- * Heathkit, SB-101, with mic (almost impossible to find) and speaker and P/S. 175.00 shipped from TX. Clean, works, and tuned up a few years back.
- * Heathkit SB-301/401 combo, with speaker and mic. Clean, works, and tuned up a few years back. \$225.00 shipped from TX.
- * MFJ-1024 Active Receive Antenna. Great for monitoring the amateur bands or for SWling. Complete with box and instructions. \$110.00 shipped from TX.

I also have 2 desks in Coraopolis I need to part with. One is a commercial type desk, with metal frame and metal legs, and a 1" thick laminate top. Very sturdy, I had a big Yaesu rig and amp on top of it among other rigs, didn't even bend. Has a corner piece that attaches to the main desk, and sits about 3" lower than the main desk, perfect for a computer monitor and keyboard. Made for a really sweet operating desk. **FREE.**

Also have a teacher type desk you would see in a school classroom, purchased from OfficeMax years ago. Also very sturdy, makes for a nice operating desk, made out of that laminated wood-type material. Has 5 drawers, also **FREE.**

73, Greg NB3C/5, kq3dx@hotmail.com



FCC News

Courtesy of the American Radio Relay League

Newington, CT, September 28th -- The U.S. **Federal Communications Commission** (FCC) is reminding retailers that two-way VHF/UHF radios are not exempt from FCC regulations and must be authorized by the Commission prior to their being imported, advertised or sold in the U.S.

In an Enforcement Advisory issued earlier this week, the Commission notes a marked increase in the number of retailers and websites advertising and selling low-cost, two-way VHF/UHF radios. According to the FCC, many of these radios have not been approved for importation or sale in the U.S. and are not compliant with one or more of the applicable technical requirements intended to minimize **interference** with authorized spectrum users.

The single exception to the Commission's VHF/UHF requirements is for those devices that operate solely on frequencies identified for the exclusive use of licensed amateur radio service operators. Two-way VHF/UHF radios that operate on both amateur frequencies and other frequency bands must hold FCC equipment certification prior to their importation, marketing or sale.

Under the Communications Act, violations of the FCC's marketing rules are subject to daily monetary fines of as much as \$19,639 per day, up to \$147,290 for an ongoing violation.

[Read the complete text of the Commission's Enforcement Advisory regarding two-way VHF/UHF radios.](#)

— Courtesy of IncomplianceMag.COM

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Has Roadway found the tower yet?

WACOM HAMFEST 2018

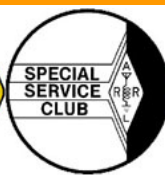
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Fourth Prize: Yaesu FTM-3200DR 65 W 2 Meter FM Mobile Transceiver
Other Prizes To Be Announced

Main Prize Drawing at 1 PM

Winner Need Not Be Present To Win

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Or WACOM, c/o Norma Plants N3YJJ, 236
Chambers Ridge Rd, West Alexandria, PA
15376

*The sale of illegal amplifiers or Adult Material
is strictly prohibited*

Is Man-Made Noise Really Vertical? continued from Page 9

The noise that we're talking about is local, we'll get to why in just a moment. Being local, it gets to the antenna via ground wave propagation rather than via the ionosphere. I claimed that the man-made noise we're discussing is local. It's not all local, but if it's remote, it's coming via the ionosphere and we know that it arrives at whatever angle it pleases, so there is little or no difference between a vertical and a horizontal dipole from a noise perspective for signals arriving via the ionosphere.

There is another effect. Attenuation or signal loss. In this case loss of strength. Specifically noise strength. More attenuation is the same as more signal loss. Combining ground wave propagation and attenuation brings us to another difference between a horizontal and a vertically polarised noise source. A horizontally polarized ground wave experiences more attenuation than a vertical one. This means that noise that is local travels further and is louder when it's vertical, compared to when it's horizontal, sometimes the difference is over 20 dB.

I've been talking about horizontal and vertically polarized noise, but what if the noise is coming at an angle, like the random noise makers around you? A simple way to think of it is that every angle has a horizontal and a vertical part, in much the same way as a right-angle triangle has three sides, one horizontal, one vertical and one on an angle.

Putting this all together, we have a number of different effects, all conspiring to make the vertically polarized part of noise travel further, be louder and received better by a vertical antenna, compared to the horizontally polarized part which doesn't travel as far, is softer and heard less by a horizontal dipole.

One more thing. The isolation between vertical and horizontal polarization can be as much as 40 dB, so a horizontal dipole won't hear vertically polarized signals well if at all and vice versa.

That doesn't make the vertical antenna useless, far from it. It's great for transmitting a long distance signal, it's small, simple to set-up and if you're in a quiet area, away from noise makers, around 500m to a kilometre or so, it's just fine as an antenna. It also doesn't need to be erected half a wavelength above the ground, doesn't need any sky-hooks, is omni-directional and in common use for most local mobile communications, so don't write off the vertical, just because it sounds noisier.

All antennas are a compromise between various elements. I've said it before and I'll say it again, likely plenty more times beyond that. The perfect antenna does not exist. We can prove that, so what ever you pick, what ever you think is the most important, that's what you'll start with and select various aspects as you go.

A vertical antenna is no worse than a horizontal dipole, it's different. Just like a Yagi is different, or a discone, or any one of the infinite supplies of antenna options. Knowing what the parameters are is the first step.

Oh, and if your neighbors complain about your lawn, tell them it's because of your noise-floor.



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[If you have an Email address, you Will be added to both lists UNLESS you choose to Opt-Out]

Signature: _____

Call Sign: _____

License Class: _____

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ARRL Member? ☐ Yes ☐ No Family ARRL Member? ☐ Yes ☐ No

Date: _____

Amount Enclosed: \$ _____

N3RDV has requested that all membership requests and renewals include an application so that his information is up to date

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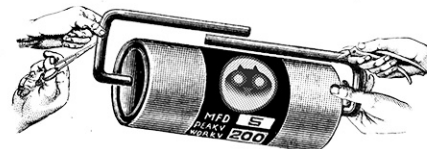
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Arghh!
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HANDMADE BY GNOMES.

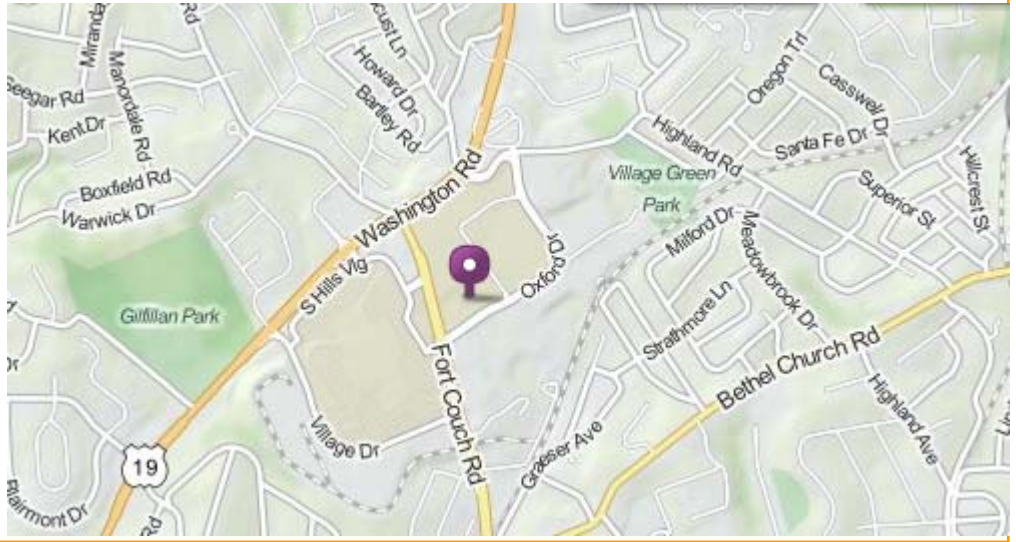
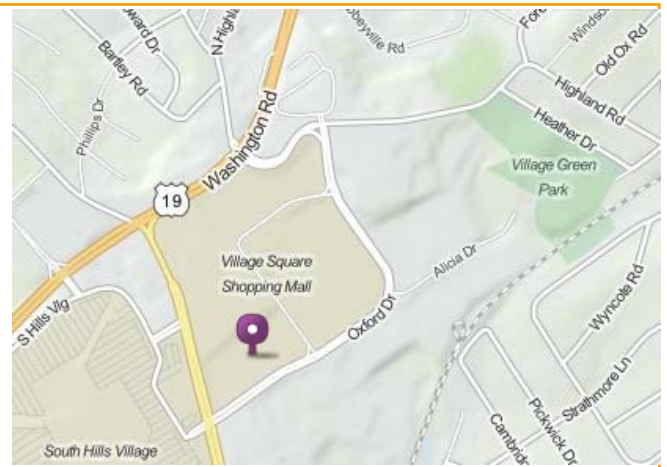


2018 WASH Meeting Location

St. Clair Hospital Outpatient Center Conference Room

2000 Oxford Drive, Bethel Park PA 15102

Adjacent to Village Square Mall, across Ft. Couch Road from
South Hills Village Mall, just off of US Route 19



The WASHRag

Wireless Association of South Hills, Inc.

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