

WASHRATM

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VOLUME 22 Issue 09
SEPTEMBER 2020

Wireless Association of South Hills

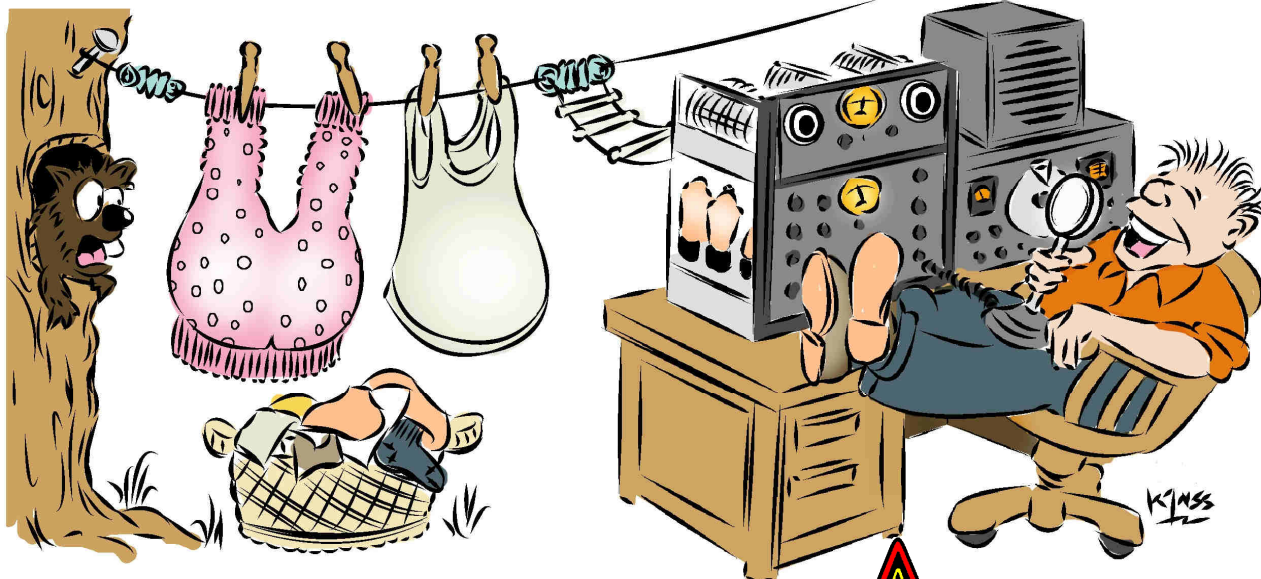


N3SH WA3SH NP2SH/B

www.n3sh.org www.washarc.org



Wireless Association of South Hills



WASHRAG™



VOLUME 22 Issue 09

SEPTEMBER 2020

Next Monthly Meeting: Thursday, September 3rd, 2020

The next scheduled meeting of the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.** will be on **Thursday, September 3rd 2020**. Due to the pandemic situation, the conference room is not available at this time, and has been replaced by an on-line Zoom meeting, also starting at 7 PM.

If you would like to attend but did not receive an invitation, contact Tony KB3BYA.

See you there!

Cover Photo: Paul NØVLR has been upgrading his equipment again...

Cover Photo by courtesy of and © Copyright 2020 Paul Lusardi NØVLR

WASH 2020 OFFICERS

EXECUTIVE COMMITTEE:

President	Tony Romano KB3BYA
VP / Secretary	Dan Campbell K3CMU
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	Grant Olson KC3MLL
Webmaster	Curtis Turner KB3CMT
Quartermaster	Harold Rosenberger K3HCR
WASH FM Net Manager	Chuck Bihun KC3ELA
WASHFest 2021 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 2020 Coordinator	Glen Roberts KE7FD

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.

Published Monthly with occasional Special Editions as warranted.

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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, its members, or its 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 its members to use their repeaters for club purposes.

WASH Amateur Radio Club News Briefs

Next WASH VE Test TBA

The Next WASH VE exam session will be on **Sunday, February 23rd, 2020, 10:00 AM**, at **WASHFest 2020**, 3735 Buffalo Drive, South Park,

We still haven't been able to schedule any **VEC Sessions** for the rest of the year, due to the COVID-19 crisis.

But we do have people indicating that they'd still like to get tested. The VE Team is looking into holding some small sessions to try and accommodate as many as we can. Finding a venue has been... challenging... so we may have to do it at someone's kitchen table.

More details on this will be forthcoming on the club email reflector, as we work out the details.

PA 15129. Talk-in on the 146.955 MHz repeater. All examiners are ARRL VEC affiliated.

Pre-registration is required due to space limitations.

Tony's Musings

I hope this finds everyone in good health. If I said that we were living in some crazy times that would be an understatement!

However this is a perfect time to make sure you are ready for "whatever" comes around the corner.

- * Inventory and locate all communications equipment.
- * Increase monitoring of local/Regional repeaters and simplex freqs.
- * Make sure all batteries are charged, and any back-up power is checked/maintained.
- * Make sure you always have at least a 1/2 tank of fuel in your vehicles.

Remember the October SET is around the corner, and will this time rely on more digital/DMR modes as well as analog.

Most likely the next few meetings will be via Zoom

Thanks and everyone STAY SAFE and HEALTHY!!



— 73, Tony Romano KB3BYA
President, Wireless Association of South Hills, Inc.
N3SH / WA3SH / NP2SH

Reminder: The September WASH Meeting will be held online as a Zoom Meeting. If you would like to attend the meeting but did not receiving an invitation, please contact Tony Romano KB3BYA immediately.

If you do not have or cannot install the Zoom app, you can attend by telephone; Tony will get you the phone number.

Last month, we mentioned the old & famous Chinese curse that goes "May you live in interesting times." Sometimes, during this last month or so, it seems like we've moved from "interesting times" to "surreal times." Who did they get to write the script for August, Stephen King? (Let's just hope that they don't have H.P. Lovecraft lined up for down the road)

So let's set that aside for the moment, and concentrate on the immediate items right in front of us.

No, there was no meeting of **The WASH Breakfast** Gang this last month. Until some of the current restrictions on restaurant occupancy are lifted, that's on hold. But it is worth noting that a few of us did manage to get together on August 29th at the Washington (PA) Eat'n Park. WB4GCS, KC4WTT, N3FB and KB3GMU were getting together, and W3WN got to briefly join them while delivering some books... more on that in a moment. No notes were taken, but some of the topics covered included past broadcast careers, buying new cars, Pa QSO... you know, the usual. But alas, the get together was cut short, as the table was needed for other guests (that pesky occupancy limit again). Maybe soon...

It probably goes without saying by now, but until further notice, **our monthly business meetings** will also be conducted **online via the Zoom app** (or one similar). Not much of a choice at the moment, as the St. Clair Outpatient Center is not available to us (or any others not part of the hospital staff) for the time being. If you need the meeting information, make sure Tony Romano KB3BYA is aware, as he is the meeting host. Unfortunately, this is the way it has to be right now.

If you do NOT have Zoom capability, you can join the meeting via the phone. Again, Tony will have the info, so please contact him.

You may have seen on the reflector that **Ed Wolf N3UE** was **giving away a whole slew of Amateur Radio books** to club members, with preference to younger members first. Some are already redistributed or promised; Ron W3WN actually has the remaining stack. There's quite a few good technical books in there, including (as of newsletter publication) an ARRL Handbook and an ARRL Antenna Book. Please email Ron directly to find out what's available and to make arrangements. And... **THANK YOU ED** for your generous donation to the club members. (When we informally voted to accept, we put you down for a "nay" vote, as is traditional)

PA QSO is coming up in about a month. The **W8XK** call is going to be one of the Bonus Stations, as a 'prelude' to November's Special Event celebrating **KDKA's Centennial**. The operation will be split between two sites... CW is being sponsored by Bill W3WH, Phone by Mike K3AIR. This permits us to easily put two signals (one each mode) on the same band at the same time, while trying to maintain Social Distancing as much as practical. What we need now are operators. **This is going to be open to ANY interested Amateur Radio Operator** (as long as you're willing to make the trip to one site or the other... or both). If you can only spare an hour or three, that's fine... we'll take what we can get. (And don't worry about experience, this is a good event to 'learn as you go'). If you're interested, please contact Ron W3WN, Bill W3WH or Mike K3AIR.

November will be the full blown KDKA Centennial Special Event. W8XK, as the 'original' KDKA call, will be QRV all month, as will special calls K3K, K3D, and K3A. More details will be forthcoming, but some preliminary notes (and a preview of the Special Event QSL Cards and Certificate) are over on Page 13. **Special thanks to KDKA/Entercomm's graphics artists and Chris Hudak WA3PBL** for the design of the card and certificate!

Scouting's Jamboree on the Air (JOTA) and Jamboree on the Internet (JOTI) will be held this year on October 16th, 17th and 18th.

Participants can register online as an individual or as a group.

JOTA is the largest Scouting event in the world.

In a typical year, more than 1 million Scouts participate in JOTA, with over 11,000 stations operated by 20,000+ young Amateurs from 160+ countries around the world.

JOTA Details are available on the K2BSA website. The website menu will direct users to additional supporting information.

Join WASH or Renew your Membership Today! Membership Application on Page 21

Minutes, August 6th Meeting

Dan Campbell K3CMU, Vice President/Secretary, WASH

Note: Due to the Pandemic, the August meeting was held on Zoom.

Call to Order: 19:12 hours.

Presiding Officer: Tony Romano (KB3BYA)

Roll Call: Members Present: 18

Committee Reports:

Treasurer: Mark Stabryla, (N3RDV): (Submitted via e-mail). August balances read. Motion to accept by Bill W3WH, second by Larry K3VX and carried.

Secretary: Dan Campbell (K3CMU): No corrections to the minutes from last meeting. Motion to accept by Carol KB3GMN, second by Eric K3SGT and carried.

Repeaters: Frank Bobro (N3FB): Some issues, otherwise OK.

WASHNet: Charles (Chuck) Bihun, III (K3CELA): No report

Tuesday Night Net: Glen Roberts (KE7FD): No report

Public Service: Simulated Emergency Test coming up on the 1st Saturday; it will be held on DMR, analog, and VHF.

Contests: No report.

Newsletter: Ron Notarius (W3WN): Published.

Volunteer Examiners: Grant Olson (KC3MLC): Looking for venues to hold exams.

Ways & Means (including Member Contributions): Carol Danko (KB3GMN): With regards to a question on **WASHFest**, typical attendance has been about 350 people (Paid).

President's Report - Tony Romano (KB3BYA): No Report

Old Business: Paul Lusardi (NØVLR) discussed use of the club Tower Trailer for Pa QSO 2020. He will forward a copy of his Personal Umbrella policy to Bill (W3WH). Also noted that Rick Bell (KB3IAC) has purchased new tires for the trailer.

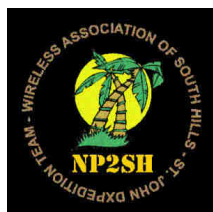
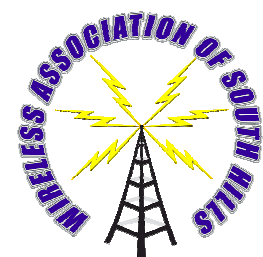
New Business: No New Business

Good of the Order:

- Ron (W3WN) noted that there will be TWO bonus stations for Pa QSO 2020... **K3MJW** (Skyview Radio Society 60th Anniversary) and **W8XX** (KDKA Centennial).
- Tony (KB3BYA) answered a question regarding whether or not **WASH** would be in financial trouble if we are unable to hold **WASHFest** in 2021. He thinks not.
- Motion by Tony Romano (KB3BYA) to table further discussion of the proposed scholarship for several months. Second by Dan Campbell (K3CMU) and carried.

Adjournment: Motion Bill Hill (W3WH) Seconded: Carol Danko (KB3GMN)

Adjourned: 19:55 hours



WASH Spotlight: Memories

With so many hamfests not happening this summer, a memory from WASHFest 2020 last February.

A snippet of the crowd, with Bill W3WH at his table in the foreground.

(Yes, we're starting to run out of pictures to run... and neither LucyFurr nor Little Miss Field Day consented to pose.)



(Yet.)

Photo courtesy of and © Copyright 2020 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@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 **Eat'n Park**, 3380 Washington Road (US 19), McMurray. 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

AE3DL
K3CMU
K3GW
K3HCR
K3JDS
K3SGT
K3VX
K6DWR
KA3VXM
KB3BYA
KB3CMT
KB3DCO
KB3GMN
KB3GMU

KB3JHR
KB3YCX
KC3ELA
KC3GMM
KC3MLC
KC3OCT
KC4WTT
KE7FD
NØVLR
N3DFK
N3FB
N3KFD
N3RDG
N3RDV

N3SFB
N7TDX
N8NEU
N9SOJ
NY9H
W3LE
W3WH
W3WN
WA3PYU
WA3VSS
WA3WXR
WB4GCS

WASH FL
KA3UPY/M
W4ZE
WASH NE
NØPEU
WASH OR
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
N3BPB
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 July 31st, 2020

List compiled by

Mark Stabryla N3RDV, Vice President/Treasurer

2020 WASH Upcoming Events Calendar

Club Meetings & Other Significant Events — Subject to Change

September 3 rd	WASH Meeting	Online ZOOM Meeting
September 13 th	Race for the Cure - RESCHEDULED	Flagstaff Hill, Schenley Park, Pittsburgh
September 13 th	Butler Co. ARA Swapfest	CANCELLED
September 19 th	Cambria County Hamfest	Revloc Volunteer Fire Company, 547 Cambria Avenue, Revloc PA 15948
September 19 th	BCARA W3VXT Memorial 2 Meter Simplex Contest	http://www.w3udx.org/2mContest.html
September 27 th	City of Pittsburgh Great Race	CANCELLED
October 1 st	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park 15102
October 3 rd — 4 th	55 th California QSO Party	http://www.cqp.org
October 3 rd — 4 th	Fox Mike Hotel Portable Operations Challenge	http://foxmikehotel.com/challenge
October 10 th — 11 th	64 th Pennsylvania QSO Party	https://www.paqsp.org
Pa QSO 2020 Bonus Stations: W8XK & K3MJW		
October 24 th — 25 th	CQ WW DX Contest SSB	http://cqww.com
November	KDKA Centennial Special Event K3K, K3D, K3A, W8XK	https://groups.io/g/kdka100
November 1 st	WACOM Hamfest	Washington County Fairgrounds, 2151 North Main Street, Washington 15301
November 5 th	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park 15102
November 7 th — 8 th	ARRL Sweepstakes CW	http://www.arrl.org/
November 21 th — 22 nd	ARRL Sweepstakes Phone	http://www.arrl.org/
November 28 th — 29 th	CQ WW DX Contest CW	http://cqww.com
December 4 th — 6 th	ARRL 160 Meter Contest	http://www.arrl.org/
December 12 th — 13 th	ARRL10 Meter Contest	http://www.arrl.org/

FCC Proposes to Reinstate Amateur Radio Service Application Fees

American Radio Relay League



Newington, CT, August 28th, 2020 – Amateur radio licensees would pay a \$50 fee for each amateur radio license application if the FCC adopts rules it proposed this week. Included in the FCC's fee proposal are applications for new licenses, renewal and upgrades to existing licenses, and vanity call sign requests. Excluded are applications for administrative updates, such as changes of address, and annual regulatory fees.

The FCC proposal is contained in a *Notice of Proposed Rulemaking (NPRM)* in MD Docket 20-270, which was adopted to implement portions of the "Repack Airwaves Yielding Better Access for Users of Modern Services Act" of 2018 — the so-called "**Ray Baum's Act**."

The Act requires that the FCC switch from a Congressionally-mandated fee structure to a cost-based system of assessment. In its *NPRM*, the FCC proposed application fees for a broad range of services that use the FCC's Universal Licensing System (ULS), including the Amateur Radio Service that had been excluded by an earlier statute. The new statute excludes the Amateur Service from annual regulatory fees, but not from application fees.

"[A]pplications for personal licenses are mostly automated and do not have individualized staff costs for data input or review," the FCC said in its *NPRM*. "For these automated processes — new/major modifications, renewal, and minor modifications — we propose a nominal application fee of \$50 due to automating the processes, routine ULS maintenance, and limited instances where staff input is required."

The same \$50 fee would apply to all Amateur Service applications, including those for vanity call signs. "Although there is currently no fee for vanity call signs in the Amateur Radio Service, we find that such applications impose similar costs in aggregate on Commission resources as new applications and therefore propose a \$50 fee," the FCC said.

The FCC is not proposing to charge for administrative updates, such as mailing address changes for amateur applications, and amateur radio will remain exempt from annual regulatory fees. "For administrative updates [and] modifications, which also are highly automated, we find that it is in the public interest to encourage licensees to update their [own] information without a charge," the FCC said.

The FCC also proposes to assess a \$50 fee for individuals who want a printed copy of their license. "The Commission has proposed to eliminate these services — but to the extent the Commission does not do so, we propose a fee of \$50 to cover the costs of these services," the FCC said.

The Ray Baum's Act does not exempt filing fees in the Amateur Radio Service. The FCC dropped assessment of fees for vanity call signs several years ago.

Deadlines for comments and reply comments will be determined once the *NPRM* appears in the *Federal Register*. File comments by using the FCC's Electronic Comment Filing System (**ECFS**), posting to MD Docket No. 20-270. This docket is already open for accepting comments even though deadlines have not yet been set.

FCC Grants Temporary Waiver to Permit PACTOR 4 for Emergency Communications

American Radio Relay League



Newington, CT, August 27th, 2020 – The FCC has granted an ARRL request for a 30-day waiver to facilitate relief communications in the wake of Hurricane Laura. The waiver temporarily permits amateur data transmissions at a higher symbol rate than currently permitted under the FCC's rules. ARRL pointed out in its request that Amateur Radio Emergency Service (ARES) members would be working with federal, state, and local emergency management officials to assist with disaster relief and may use radio modems capable of both PACTOR 3 and PACTOR 4 emissions. The higher data rates PACTOR 4 offers are critical to sending hurricane relief communications, including lists of needed and distributed supplies.

Section 97.307(f) limits the symbol rate — also known as the baud rate — for HF amateur radioteletype (RTTY) and data transmissions to 300 bauds for frequencies below 28 MHz (except on 60 meters), and 1200 bauds in the 10 meter band. "The digital code used to encode the signal being transmitted must be one of the codes specified in section 97.309(a) of the Commission's rules, but an amateur station transmitting a RTTY or data emission using one of the specified digital codes may use any technique whose technical characteristics have been publicly documented, such as CLOVER, G-TOR, or PACTOR," the FCC pointed out in granting the request.

In 2016, in response to an ARRL petition for rulemaking, the Commission proposed to remove the symbol rate limitations, which it tentatively concluded had become unnecessary due to advances in modulation techniques and no longer served a useful purpose. That proceeding, WT Docket 16-239, is still pending.

ARRL sought the waiver for radio amateurs directly involved with hurricane relief on HF using PACTOR 4. PACTOR 4 permits relatively high-speed data transmission, and the FCC has granted temporary waivers in the past to permit the use of this protocol in similar events.

"ARRL stands ready to assist the area potentially impacted by Hurricane Laura to conduct disaster relief communications," the FCC said. "We conclude that granting the requested waiver is in the public interest. Hurricane Laura has the potential to cause massive destruction states along the Gulf of Mexico, and communications services will likely be disrupted."

The waiver is limited to PACTOR 3 and PACTOR 4 transmissions directly involved with HF hurricane relief communications.

Job Opening:

ARRL is seeking a National Club Coordinator who will act as the primary point of contact for Section Affiliated Club Coordinators. Section Affiliated Club Coordinators work with clubs to foster and coordinate activities to promote recruiting and training of new radio amateurs, endorse ARRL membership, and impart a positive image of amateur radio within the community.

In addition to maintaining lines of communication with Section Affiliated Club Coordinators, the National Club Coordinator will develop presentations for in-person audiences and electronic media. The National Club Coordinator will also maintain affiliated club records and provide information and support to Affiliated Club Coordinators so they can assist clubs in keeping the ARRL affiliated club database current. This individual will also process applications from clubs seeking ARRL affiliation.

The ideal candidate will exhibit courtesy, tact, and diplomacy on the job and be able to build relationships and solicit cooperation both within and outside the organization.

For complete information on this opening, see the full [job description](#), which includes instructions on how to submit a resume.

About FCC NPRM MD Docket 20-270

Ron Notarius W3WN

Note: The following article is solely the opinion of the author, and does not necessarily represent the views of the WIRELESS ASSOCIATION OF SOUTH HILLS or the WASHRAG newsletter staff.

Castle Shannon, PA, August 30th, 2020 – The Federal Communications Commission has proposed (see article on Page 6), under the guise of the 2018 [“RAY BAUMS ACT”](#), that certain fees once again be imposed on the Amateur Radio Service.

Since certain services that the FCC provides to Amateurs are excluded by federal statute from fees, specifically annual regulatory fees; but not others, such as application fees; the proposal is to impose a “nominal application” fee of \$50 for each new or renewal license application, including application for Vanity calls. And it seeks to also impose a fee of \$50 for those who wish the FCC to continue to mail them a physical license.

Yes, I have a big problem with this.

First off, let me be crystal clear on one thing: I don’t object to reasonable fees to cover the processing costs of applications; nor do I object to reasonable fees to print and mail a license.

My objection is that \$50 -- \$100 if you’re one of us who still prefers the physical ticket in the mail – is not nominal. It is exorbitant.

Let’s start by examining the license application (new or renewal) process:

Since the FCC no longer (and has not, since 1984) administers exams, all new applications are processed by one of the 15 current Volunteer Examiner Coordinators. Successful applicants have their information submitted electronically to the FCC by the VEC. All the FCC has to do is process the ‘batch’ files containing the applicant information; and for new licensees, in the process create a new ULS record, assign a sequential ULS record ID, and assign an appropriate sequential call sign. The process should only take a few seconds at most.

Cost to the FCC: Next to nothing. Yes, there should be some pro-rated cost to cover electricity, cost and maintenance of the computers, and other related items. So, let’s be generous and say that the cost to the FCC for routine new license applications is at most, about \$5.

Renewals? Again, many if not most are handled via the VEC. Same procedure, only we have a record updated instead of created. And many, possibly most, are handled by the Amateur themselves directly in the ULS system. Cost to the FCC? Again, negligible... but let’s be generous and allow for ancillary costs and say \$5.

Paper license? Well, we’re not talking about the days of a fancy or ornate 8x10 Amateur Extra Class certificate mailed in a large envelope. Licenses today are simply printed by a laser printer to plain paper; we don’t even get a watermark. So... there’s a ‘check box’ in the ULS record that says “paper license.” The appropriate information is sent to another batch file. Once a week or so, this batch file is processed... licenses printed, stuffed into envelopes, and mailed. Envelopes have those “windows” so that the mailing address on the license is what shows up through the “window.”

Since this is done as a batch, the batch can be pre-sorted to take advantage of better postal rates. The envelopes are postmarked electronically. Human intervention? Minimal at best... this is all done by machines (Pitney Bowes, for one, had a postage machine over 15 years ago that did all this) except the very last step... taking the envelopes out of the printer and putting them in a mail bin or equivalent.

Cost to the FCC? Well, we’re talking about real paper, real envelopes, and real postage here. About a buck. Again, let’s be generous and say another \$5.

So it is quickly evident, pending actual data to the contrary, that the “nominal” fees being sought are approximately **ten times** what our very generous estimates say that their actual costs will be. (And if these estimates are wrong, I’d like to see the hard data that proves otherwise.)

Another factor to consider... new applicants already pay a fee of \$15 for the VEC to process their application. (Yes, I know some VEC’s do not charge the full fee, some don’t charge any; set that aside for now.) So does this new structure mean that a new applicant will pay a total of \$65 to sit down to take a test?

And what happens if they fail the test and do not get a license... do they get a refund? Do they get a credit towards a future test? Who collects the money, and how do they process it? Are we going back to the days of sending money to Mellon Bank’s drop box within 21 days of filing an application? And heaven help you if the financial institution has its own problems! [Remember, one of the reasons that the FCC dropped fees were because of problems and additional costs coming from processing and handling the \$\$... which makes one wonder if the proposed “nominal” fees are so high to COVER the potential additional costs of handling the \$\$, which is really getting into the realm of the absurd.]

[The answer to this could be as simple as credit/debit card information on the equivalent of the Form 605. No ticket, no charge. But what of those who don’t have a credit/debit card – especially minors? Or who don’t care for their information being on a piece of paper, ie Form 605, being passes around VE’s, the VEC, and who knows whom else?]

The real reason behind the fees can be found in Paragraph 25 of the actual NPRM. There, a chart is shown of the current GMRS fees, followed by the explanation that since these are the fees for one “personal” radio service, those same exact fees should apply to ALL “personal” radio services. So there’s no actual justification for these fees, other than what’s good for one (is it?) is good for all. This demonstrates a lack of actual research into what the fees ought to be, based on actual costs (and if memory serves, wasn’t the Federal Court decision that threw out the FCC’s fees for CB licenses, years ago, based on that very premise – that fees need to correspond to actual costs?), but is simply a bureaucratic decision to take the easiest way out.

Besides the high fees, what bothers me is that ‘administrative updates’, primarily mailing address changes, remain exempt... and they should, mind you, and not simply because by law they must be. More specifically, the FCC claims that “For administrative updates [and] modifications, which also are highly automated, we find that it is in the public interest to encourage licensees to update their [own] information without a charge”. So... we are going to be charged an excessive fee for SOME ‘highly automated’ processes, when we won’t for others? The implication is that to make up for the fees that can’t charge, they’re planning on excessive (not “nominal”) fees for those that they can. If you’re not legally allowed to charge the fees, hiding them within another fee might just be illegal.

The actual issue to me is that someone is trying to scrape up every nickel they can to fund government programs. I get that. And I certainly don’t want what few FCC services we still get to disappear or become less than they already are because of funding cuts.

So a reasonable fee is acceptable.

A reasonable fee of \$10 for a new app or renewal more than covers the costs of services provided, and leaves additional funds for other things (*hey FCC, how about giving us a real Enforcement Bureau again, if we help pay for it, hmmm? But I digress*). A reasonable fee of \$10 to cover processing and mailing a ticket also covers costs with something left over.

I’d even consider \$15 each reasonable... a touch high, mind you, but still within reason.

But \$50? Each? That’s not reasonable. That’s excessive. That’s a money grab.

Reasonable fees are warranted. Trying to pass off unreasonably high fees as “nominal” are not.

If you’ll pardon a slightly crude expression... and if it’s good enough to be the title of *Judge Judy’s* autobiography, it can’t be all that bad: Don’t pee on my leg and tell me it’s raining.

If you haven’t already filed your comments for MD 20-270, please do so before the deadline.



My First Field Day

As Told By An Old Friend to Glen Roberts KE7FD

Clairton, PA, August 28th, 2020 – My first Field Day took place when I was in my teen years. Fortunately for me we got to do this on my grandparents ranch. That made it possible to have good food, plenty of good lemonade and a place to sleep when you got tired. The best judge of a favorite recipe is if it stands the test of time within family and friends. Grandma's have a special place in our hearts for just this very contribution, and my Nana was no exception. However, discovering that truth was not an easy lesson for me..

My grandparents had a small place along the Arizona Mogollon Rim which in earlier decades was a thriving horse ranch. But during my youth, their horses were all but gone and instead they boarded horses for other folks. Clients some times had to take care of their own horses (feeding and cleaning stalls) but others paid to have that done; there was always something that Pawpaw needed to get done every day. That's where I come in. I was able to spend one summer with them between my Junior and Senior high School years away from the rain in Seattle where my family lived at the time.

The first couple weeks, I'd gotten pretty good at turning horses out to pasture, shoveling manure, stacking bales of alfalfa, all the usual stuff. Nana always brought out to us a Thermos of ice cold lemonade just when we needed it. Her lemonade was special, not like the store bought stuff or other homemade lemonade. She added something to it which made it so much better than ordinary lemonade. So between taking care of horses Pawpaw and I would operate HF from a small trailer they had there on the ranch, and powered by a big gasoline generator he had there. It was a lot of fun, but during the day it was pretty warm.

On Saturday after setting up the antennas, we both noticed how warm it was and were getting quite thirsty. Nana had to run errands in Payson and couldn't bring the lemonade out to us. So I hoofed it back to the house to grab it out of the fridge. I was so sweaty when I opened the fridge door, that the blast of cold air felt so good when it hit my face. I didn't see the Thermos anywhere in the fridge, but instead saw it drying next to the sink. Scanning the fridge again, I found that she'd put the lemonade in a different container, probably because the Thermos hadn't been washed yet. She had been rushing about to get to town, and go to the store she said before leaving. To me it seemed like she'd made more lemonade than usual and I was so hot and thirsty, that without wasting any more time, I took a large tumbler from the drain board and poured myself a cold one.

I put the glass to my mouth and began guzzling the sweet refreshment when after two large swallows, it hit me that something was very wrong. Instead of the sweet nectar of lemon refreshment I was expecting, I had drunk lemon marinade in which chicken parts were soaking, I later learned. It tasted terrible and I tried to cough it up, which after running to the head, managed to rid myself of most of the awful concoction. When I didn't show up back to help Pawpaw with Field Day, he came looking for me. I was curled up on the bathroom floor and after he'd figured out what happened, said he was going to work 40 CW, if I wanted to work 20 phone, that is once I was feeling better.

That evening we took a break to have a good meal. We enjoyed green beans with bacon, rice pilaf and very tender chicken barbecue. Nana and Pawpaw had lemonade; I had water.

Honey. The secret ingredient was honey instead of sugar.

Arecibo Reflector Dish Damaged After Cable Snaps

American Radio Relay League, University of Central Florida & Other Sources

Newington, CT, August 12th, 2020 – An auxiliary cable that helps to support a metal platform above the Arecibo Observatory radio telescope's reflector dish in Puerto Rico snapped in the early morning hours of August 10th, causing a 100-foot gash in the reflector dish. Operations at the world-famous observatory, managed by the University of Central Florida (UCF) have been halted until repairs can be made. When the 3-inch cable fell, it also damaged about a half-dozen panels in the Gregorian Dome above the dish and twisted the platform used to access the dome. The cause of the cable break is not yet clear.

"We have a team of experts assessing the situation," observatory director Francisco Cordova said. "Our focus is assuring the safety of our staff, protecting the facilities and equipment, and restoring the facility to full operations as soon as possible, so it can continue to assist scientists around the world."

UCF manages the National Science Foundation (NSF) facility under a cooperative agreement with Universidad Ana G. Méndez and Yang Enterprises Inc. Home to one of the most powerful telescopes on the planet, the facility is used by scientists around the world to conduct research in the areas of atmospheric sciences, planetary sciences, radio astronomy, and radar astronomy. Arecibo is also home to a team that runs the Planetary Radar Project supported by NASA's Near-Earth Object Observations Program in NASA's Planetary Defense Coordination Office, through a grant awarded to UCF.

The facility has endured many hurricanes, tropical storms, and earthquakes since it was built 50 years ago. Repairs from Hurricane Maria in 2017 are ongoing. Through it all, the facility has continued to contribute to significant breakthroughs in space research in the area of gravitational waves, asteroid characterization, planetary exploration, and more.

The largest single-dish radio telescope in the world for decades, Arecibo was bumped into second place in 2016 by the Five hundred-meter Aperture Spherical Telescope (FAST) in China.

The Arecibo Observatory Radio Club operates KP4AO at the site, mostly on special occasions.



The **Intrepid-DX Group** has announced the winners of its first annual Youth "Dream Rig" Essay Contest. "We received over 60 essays from young amateurs from all over the world," said Intrepid-DX Group President Paul Ewing N6PSE. "The essays were unique in thought and very well-articulated. Extra points were given for proper grammar, punctuation, and spelling. Most of the essays gave unique perspectives on how to reach out and connect with the youth of today. We will be sharing those ideas in subsequent postings."

The first-place winner and recipient of an Icom IC-7300 transceiver is **Faith Hannah Lea KD3Z**. She will also receive a vertical flagpole antenna from Greyline Performance Antennas, a deluxe headset from Heil Sound, a Powerwerx switching power supply donated by Steve Jones, N6SJ, and a QRP Morse Nano Morse Key-25-811P from GigaParts.

In second place was **Charlie Meadows N4VTI**, who received a Yaesu FT-65 handheld transceiver donated by Ewing. In addition, he'll get a \$50 DX Engineering gift card from David Jorgensen, WD5COV.

Patrick Gawthrop W9GGG, was the third-place winner and recipient of a BaoFeng BF-F8HP handheld transceiver donated by Ewing. He will also receive a \$50 DX Engineering gift card from Jorgensen.

"Having read over 60 essays this week, we can tell you that our youth are full of great ideas and they are brimming with enthusiasm to keep our hobby alive well into the future," Ewing said, adding that the Intrepid-DX Group will publish several of the essays on its Facebook page.

"Thank you to all of the youth participants for helping us make our first annual Youth Essay Contest a success," Ewing said. "Let's do this again next year!"

The **Intrepid-DX Group** is a 501(c)(3) nonprofit organization devoted to promoting amateur radio and providing STEM education in developing countries.



Radials

Ron Notarius W3WN

Castle Shannon, Pa, August 25th, 2020 – A few nights back (as I write this), I met up with a local ham to deliver some ARRL books on behalf of Ed N3UE. We got to talking, getting some looks... now if you're sitting next to a classic automobile, amongst other classic automobile owners, at 8 PM on an August evening in a mini-mall parking lot, I'm not sure why YOU would be giving OTHERS looks for just talking, but I digress... and the subject came up about the number of radials that your average HF vertical antenna needs.

This is an exceedingly common question, so even though I passed on my two cents worth to that ham, I thought a few words to others wouldn't be so bad an idea either.

Keep in mind, before we go any further, that I am discussing HF verticals, variations on the classic $\frac{1}{4}$ wavelength vertical antenna. This may not apply to other verticals, such as end-fed half waves, vertical dipoles, and other variations thereof. And we're sticking strictly to Amateur Radio transmitting type antennas, for the purposes of discussion.

How many radials? And how long should they be?

Ideally, for a mono band vertical, you should have a minimum of four radials, equally spaced. When they are ground-mounted, ideally, they should be about $\frac{1}{4}$ wavelength for the band that the vertical is designed for.

Are more better? Of course. Six, Eight, Ten, Twelve all improve things; the ideal for most practical antennas, depending on who you talk to, will be 16 to 24.

Can you do more? Of course, but after about 16 to 24 radials, you start running into the law of diminishing returns; that is to say, you don't see a significant improvement as you get to that many radials.

Should the radials be ground mounted? Yes. (If they're not, technically, they're called counter-poise, not radials... as you can see on many models of 2 meter and other V/UHF antennas).

Should they be buried? Well... For radials to work best, they can be buried, but not too deep. Anything more than an inch or two can potentially create issues later.

As a practical matter, you don't want family or pets or total strangers walking near the antenna to trip over the radial... and you don't want to see what happens if a wire gets sucked up by a lawnmower blade (not good for the lawnmower, and usually a total disaster for the radial!). I used to either cut a small trench (not more than a $\frac{1}{2}$ inch to an inch deep) in the grass (use a flat-end shovel), lay the radials in it, then, close the trench up. Or I'd try to slip the radials underneath the sod after making a cut with a sod cutter.

What I do now, though, is simply lay the radial on top of the lawn (usually just after cutting the grass), keeping the wire on the ground. I use wiring staples to hold the wire in place. Give it 2 – 3 weeks of normal weather (not the drought we've had this summer!) and not only will the grass grow over the radials, but the thatch that builds up as grass stalks die will completely cover the wire. Staples are cheap when bought in bulk, and easy to hammer into the ground if needed. Word of advice: Don't skimp. The cost of a few extra staples (again, when bought in bulk) are only a few pennies.

Should the radials only go "straight" from the vertical? Again, theoretically, they should. As a practical matter, once you get more than a few feet away from the antenna, the effects of 'bending' a radial aren't as pronounced. On real long radials (for 160 or 80/75 meters), it's almost impossible to avoid bending the radial, so just do the best you can.

So what about multi-band verticals, such as the Cushcraft AV-5, or Butternut HF-9V, or others? The same general rules apply, but one tries to get at least 2 to 4 radials down for each band. (40 meter radials will double as 15 meter ones; they'll just be $\frac{3}{4}$ wavelength instead of $\frac{1}{4}$, and as an 'odd' fraction, that's good).

What if you can't get the "ideal" number of radials down, for whatever reasons? (Buildings, other obstructions, property lines, etc.) Simple. Put down as many radials as you can, as long as you can, in as many directions as you can.

As a practical matter, it's not as critical to have "tuned" radials on the ground (as opposed to "tuned" counter-poise). Partly, because the nature of the Earth itself will partially "de-tune" the radials. And partly, because you're trying to simulate a ground plane, so the more wires, the better.

Now, since we're talking about Vertical antennas, the next obvious question is... Does the length of the vertical portion of the antenna matter? YES.

So let's back up a moment.

Your simplest and most basic antenna is a center fed doublet. Both wires for the doublet are at equal length.

When we hang this in the air in a (more or less) straight line, for a total length equaling about $\frac{1}{2}$ of the wavelength we want to use (ie, 20 meters – about 67 feet – for a 40 meter antenna) we commonly refer to this as a dipole. The nominal impedance (or if you prefer, radiation resistance) is about 72 Ω . [That is to say, the theoretical impedance for a dipole hanging in "free space" with nothing around it. In the real world, a lot of other factors come into play, especially height above ground, nearby objects, and so forth. But for the sake of simplicity, we'll stick with the theoretical value for right now.]

Raise the center/feed point, and bring the ends closer together, about 90° apart (looking like an upside down V), and that impedance will be about 50 Ω . (That's why the 'Inverted Vee' antenna is simple to build, simple to install, and works effectively without an antenna tuner or transmatch... on the band it's designed for).

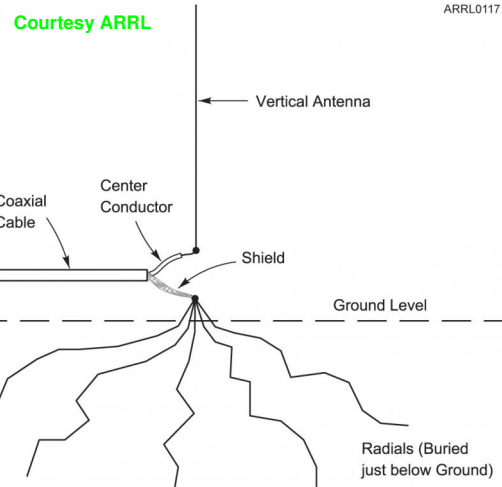
So our $\frac{1}{4}$ wave vertical is actually made of two parts – the vertical part is one side of the dipole. The radials, spread out, compose the other side of the dipole. And the impedance will be between about 36 and 50 Ω .

One might think that if a $\frac{1}{4}$ wave vertical is just dandy, why not go longer? Will it work better?

Well, without delving too much into radiation patterns, maybe, maybe not. There are people who will swear by, for example, a $\frac{5}{8}$ wave vertical. The problem there is that pesky impedance. You'll need that transmatch in line to keep your solid state transceiver's finals seeing the 50 Ω match that they were designed for. (That's the purpose of a 1:1 SWR, but that's another story for another time).

And a funny thing happens when your traditional $\frac{1}{4}$ wave vertical approaches $\frac{1}{2}$ wave. The impedance goes up; and up; the closer you get to a $\frac{1}{2}$ wave. Apologies to those who want to forget high school calculus, but... remember those formulas, like solving for $f(x)$ as the value of (x) approaches 0? (Yeah, I try not to either). When it comes to impedance, as the length of the vertical approaches a $\frac{1}{2}$ wave, the impedance approaches infinity. So that 32 foot flag pole you built that's really a 40 meter vertical, with a hidden coax feed at the base? Great on 40, great on 15 (remember, $\frac{3}{4}$ wavelength), but pretty much a total waste on 20 and 10.

[One more thing on SWR. If your rig and coax have a 50 Ω impedance, as just about all modern ones do these days... and your antenna, such as that flat dipole, has 72 Ω impedance, your SWR will be $72/50$, or 1.44. If that vertical is about 36 Ω ? SWR will be



My New "Perfo-Box" Bandpass Filters

Paul Lusardi NØVLR

Imperial, PA, August 28th, 2020 – This is a Russian-made set of 6 HF bandpass filters, packaged into one box that has both manual and auto control via radio CAT lines.

The product description is here (<https://lowbandsystems.com/collection/200w-perfobox>), but is lacking a packaged solution box - hence the attached photos.

It covers the normal contest bands 10, 15, 20, 40, 80 and 160 Meters. The intent is that I will add the N3FB control box to make this unit switch between bands as I tune on the radio.

As you can see by the back panel, it has 1 input and 1 output and the internal switches handle the magic for picking the right filter

Looking forward to getting this working for Pennsylvania QSO Party 2020!

Editor's Notes:

- A review of the HF Triplexer version of the Low Band Systems multiplexers & band pass filters can be found in the March 2017 issue of QST. You can find this review in PDF format at https://static-ru.insales.ru/files/1/6623/312775/original/QST_PerfoBox_product_review.pdf
- Low Band Systems (Andrei Fedorischev RA6LBS can be reached at ra6lbs@gmail.com.
- The US Distributor for these products is DX Engineering. More information about this and related products is available at <https://www.dxengineering.com/search/brand/low-band-systems?sortBy=Default&sortorder=Ascending&keyword=Low%20Band%20Systems&kr=Low%20Band%20Systems>



When Hurricane Laura came ashore and hit Texas, Louisiana and Arkansas, before being downgraded to a Tropical Storm by last Thursday (August 24th), the winds created catastrophic damage to homes, businesses, and related infrastructure.

According to the FCC's Disaster Information Reporting System, 380 out of 4650 cell phone sites in LA were not operational (200 lacked power, 141 had a 'transport issue', 16 were damaged.)

Almost 200,000 "cable and wireline company" subscribers were without service (including phone, video, and/or Internet services).

Three television stations, five FM broadcast stations, and one AM broadcast station were off the air.

The tower for KSWL-TV (see photo) crashed and impacted at least one building when the storm took it down.

(KSWL-TV tower photo from KATC-TV, courtesy of Brad Dye's Paging Information newsletter)



Radials

continued from Page 7

$50/36 = 1.389$. For the sake of argument, say an SWR of 1.4, or 1:1.4, for each. That's not IDEAL, but that's normal. The point is, SWR isn't really magic... it's just the larger impedance divided by the smaller one. And an SWR of 1:1? Excellent! But there's more than just an ideal SWR involved in antenna radiation.]

How do multi-band verticals work then? They use inductor/capacitor (LC) circuits, built into the antenna as "traps" or "loading coils" to electrically modify the length, so that the antenna is electrically shortened enough to keep the impedance down to about 50 Ω . (The Butternut verticals also use a "tuning stub" to detune the upper part of the vertical on 15 and other bands, and there are other ways as well)

Let's get back to radials.

Ideally, a vertical antenna works best when the ground plane really is just that – a sheet of metal. (If you have a shed or out building with a metal roof, put your vertical in the center, make sure all the roof panels are electrically connected, and you should be all set!). That's why the more, the merrier. That's why the length is important, but not critical.

Some will ask, why not just put in a ground rod, and tie the 'ground' side of the vertical to that? That might give you a good match, from a purely electrical standpoint. But you need the radials spread out as a ground plane... otherwise, you're just going to make things a might toasty for the earthworms this winter. [Some antenna experts will argue that a ground rod should be put into the ground, near the antenna itself, and tied into the ground/radial system. There are some good reasons to do this in certain situations, that have nothing to do with the radiation pattern or radial field itself, but that too is a subject for another time.]

One last point that I'm often asked... can you mount a vertical to a chain link fence and use THAT as your ground plain/counterpoise/radials? The purists will argue with me on the, but the practical answer is YES. And I can prove it – that's how my vertical is currently mounted! But again, the devil is in the details. The feed point has to be above the fence itself, if the fencing is separated by sections they have to be electrically connected, additional radials run from the base of the vertical itself down the fence and into the ground... this is really an entirely different discussion. But it can be done, so long as you have the patience to do it right.

The bottom line is, there are no shortcuts. Sometimes there are compromises, and various solutions to those compromises... but no shortcuts.

HF Vertical antennas are amazing for how well they function with so relatively little esthetic impact. With a good vertical and decent radials, you can work the world on multiple bands, with 100 Watts or less output. You just have to do one thing... get down those radials!



David Minster NA2AA Elected New ARRL CEO

American Radio Relay League

Newington, CT, August 27th, 2020 – The ARRL Board of Directors has elected David Minster NA2AA of Wayne, New Jersey, as ARRL's new Chief Executive Officer, starting on September 28. Minster is currently Managing Partner at Talentrian Partners, a management consulting firm serving the consumer goods and luxury goods industries.

Minster began his career as a software engineer, moving into management at Unilever, as a Chief Information Officer of this globally recognized portfolio of brands that includes Elizabeth Arden Company, Chesebrough-Ponds Canada, Thomas J. Lipton Co., and others. From there, he moved to fine jewelry manufacturer and retailer David Yurman, where he served as COO and CIO. More recently, Minster served as CEO of

jewelry brands Scott Kay and Judith Ripka.

"Building a culture of accomplishment and accountability is what I do best. My initial focus will be working with the Board on establishing strategic goals and concrete plans to navigate ARRL through the digital transformation required for the coming decades of its Second Century. This includes exciting and innovative ways to be engaged in amateur radio, while growing activity and membership."

Minster got his Novice license, WB2MAE, in 1977, when he was in his teens. He progressed from Advanced to Amateur Extra and, after a stint as NW2D, he settled on the vanity call sign NA2AA in the 1990s as a way to honor a mentor, N2AA, and the contest station that he used to frequent, K2GL, in Tuxedo Park, New York.

Minster's ham radio pursuits have ranged far and wide over the years. His background includes National Traffic System training and participation in public service events, as well as contesting from home, club stations, and contest stations in the Caribbean — particularly on Bonaire, where he is a member of PJ4G. Primarily a CW operator, Minster collects unique and vintage bugs and keys.

Minster earned a bachelor's degree in computer engineering from The Ohio State University and has a special interest in satellites, digital communications, remote operation, and ham radio computing and software. He has written keyer software for the commercial market, and contest logging, packet, and satellite telemetry software for personal use.

In addition to being an ARRL member, Minster is a member of AMSAT, the Frankford Radio Club, the Straight Key Century Club, CWops, and the North American QRP CW Club.

"I spend every day of my life, one way or another, engaged in amateur radio. It is more than just a hobby for me; it is my community. It is where I live; where I have built lifelong friendships, and friendships that span the globe. Amateur radio allows me to dream and to experiment. I can't wait to bring my energy and boundless enthusiasm in service to ARRL."

ARRL President Rick Roderick K5UR said, "We are excited to welcome David as our new CEO, and look forward to his progressive leadership. His experience in management and operations, plus his activities in amateur radio, will serve our organization and members well."

Minster will succeed Barry J. Shelley N1VXY, who was CEO in 2018, and who has been serving as ARRL's Interim CEO since January 2020. Shelley had been ARRL's Chief Financial Officer since January 1992.



NA2AA photo courtesy of and © Copyright 2020 the American Radio Relay League



Candidates Set for 2020 ARRL Elections

American Radio Relay League

Newington, CT, August 25th, 2020 – The candidates for the 2020 ARRL Division Elections are now official. ARRL members will choose between two candidates for Director in the Dakota and Great Lakes Divisions in this year's election cycle, and from among three candidates for Vice Director in the Great Lakes Division and between two candidates in the Midwest Division. In the Atlantic and Delta Divisions, incumbents are unopposed for both Director and Vice Director. In the Dakota Division, the sitting Vice Director is running unopposed, while in the Midwest Division, the current Vice Director is the only candidate for Director.

Declared Elected without Opposition

- In the Atlantic Division, Director Tom Abernethy W3TOM, who has held the seat since 2015, and Vice Director Bob Famiglio K3RF, elected to a 3-year term (2015 – 2018) and then appointed in 2019 to fill a vacancy when the incumbent stepped down.
- In the Dakota Division, Vice Director Lynn Nelson WØND, in office since 2018.
- In the Delta Division, Director David Norris K5UZ, who's served in that office since 2012, and Vice Director Ed Hudgens, WB4RHQ, appointed in 2013.
- In the Midwest Division, current Vice Director Art Zygielbaum KØAIZ, will become the new Director in January, succeeding incumbent Rod Blocksom, K0DAS, who is not seeking a new term. Zygielbaum has been Vice Director since 2014.

Contested Seats

- In the Dakota Division, incumbent Director Matt Holden KØBBC, in office since 2018, is being challenged by Vernon "Bill" Lippert ACØW.
- In the Great Lakes Division, incumbent Director Dale Williams WA8EFK, who has held the seat since 2014, will face off against Michael Kalter W8CI, who is treasurer of the Dayton Amateur Radio Association.
- In the Great Lakes Division, members will choose from among three candidates to succeed incumbent Vice Director Thomas Delaney W8WTD, who is not running for another term. They are current Ohio Section Manager Scott Yonally N8SY; Jim Hessler K8JH, who is vice president of the Grand Rapids Amateur Radio Association, and Frank Piper K18GW, Yonally's predecessor as Ohio Section Manager.
- In the Midwest Division, members will choose between Dave Proper K2DP, a current Assistant Director, and Lloyd Colston KC5FM, a past Oklahoma Section Manager to fill the Vice Director's chair that Zygielbaum is vacating.

Balloting for contested seats will take place this fall. Votes will be counted, and successful candidates announced, in November.

Solar Cycle Minimum Passed in December 2019

© Copyright 2020, Sunspot Index & Longterm Solar Observations (SILSO) [Website](http://www.sidc.be/silso/home)

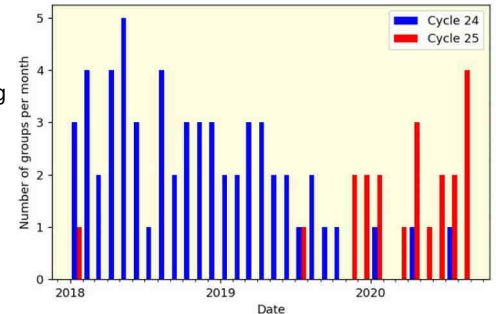
Brussels, Belgium, August 21st, 2020 – In January 2020, the **13-month smoothed sunspot number** rose for the first time since the maximum of cycle 24 (April 2014). Most probably, this indicates that **the minimum between cycles 24 and 25 was passed in December 2019**.

However, for now, this latest smoothed value in January 2020 is the very first point indicating a rise of the activity. So, the date of the minimum still needs a full confirmation over the coming months. For now, preliminary smoothed values, limited to less than 13 months, hint at increasing values over coming months. If the rising trend indeed continues, this date will become fully definitive.

Another indication of the transition between the two cycles can be drawn from **counts of individual sunspot groups belonging to the old and new solar cycles**. While most sunspot groups belonged to the last solar cycle until September 2019, the dominance switched to groups of the new cycle in November 2019.

So, **this transition in terms of number of active regions falls in October 2019**. This is close to December 2019. The slight time difference comes from three reasons:

- The sunspot number also takes into account the total number of spots, and thus the size of the emerging active regions.
- The time of the minimum depends on the respective trends of the declining phase of the past cycle and of the rising phase of the new cycles, over the 12 months surrounding the minimum.
- The date of the minimum has a significant uncertainty range, as near the minimum, the activity hardly varies and is thus almost as low as the minimum level during a few months. The date of the minimum is thus always less sharply defined than the date of the maximum of the cycles, which are more sharply peaked.



IARU Announces HF Digital Mode Band Plan Review

American Radio Relay League

Newington, CT, August 14th, 2020 – An International Amateur Radio Union (IARU) working group has been formed to develop solutions to reduce congestion within very popular mode segments while preventing mutual interference between “incompatible modes” as much as possible. The working group includes representatives of the three regional band-planning committees, marking the first time the IARU three regions have joined together to directly coordinate band planning efforts.

“Because frequency allocations and amateur radio operating interests vary in different parts of the world, the development of band plans — voluntary guidelines on the use of the spectrum that is available to radio amateurs — is a responsibility of the three IARU regional organizations,” the IARU explained in announcing the working group. “Each of the three regions has a band-planning committee to focus on this work.”

The IARU says this approach to band planning has generally kept pace with the evolution of amateur radio operating, but the explosive growth in HF digital modes, particularly FT8, has led to perceived overcrowding of HF digital-mode band segments.

The new working group has already had fruitful discussions with the WSJT Development Group led by Joe Taylor K1JT. Additional discussions, including with other HF stakeholders, will be held as part of a fundamental review of the different HF digital modes, and how they can be best categorized and arranged to share the limited spectrum available.

In recent years, moves have been made to bring the regional band plans into alignment wherever possible. Final approval of any band plan revisions typically occurs during regional conferences of IARU member-societies, held every 3 years on a rotating basis.

While the proposed band plan revisions will have to be approved by member-societies in each region, recent administrative changes mean that revisions can be implemented without having to wait for the regional conferences.

Amateurs can follow the working group's progress through their IARU member-societies and their respective [IARU websites](#) (all are accessible via the main IARU page).



KDKA Centennial Special Event Stations Update

Bob Bastone WC3O

Tarentum, PA, August 28th, 2020 -- I wanted to update everyone on how things are going. Despite the quiet, there has been great progress with this event.

I have been working with Chris Hudak WA3PBL from KDKA. Thank you Chris and the graphic arts people at KDKA. The artwork for the QSL cards and certificate is done and is now at the QSL card printer! Might I add, they look GREAT!

There is a good possibility that there will be a field

operation from the old KDKA transmitter site in Saxonburg! (Thank you Al Houston N2MA and the North Hills ARC)

The event announcement for the event has been sent to QST. Thank you Pete Finnegan W3WC. Pete is also working on some other good aspects. Stay tuned.

Working with Bob Mente NU3Q on other PIO stuff. Stay tuned. Chris is working on getting the word out in industry magazines.

We need your input. We are getting closer to show time. I like the way things are coming together. I think this is going to be a great country-wide event, as well as international event.

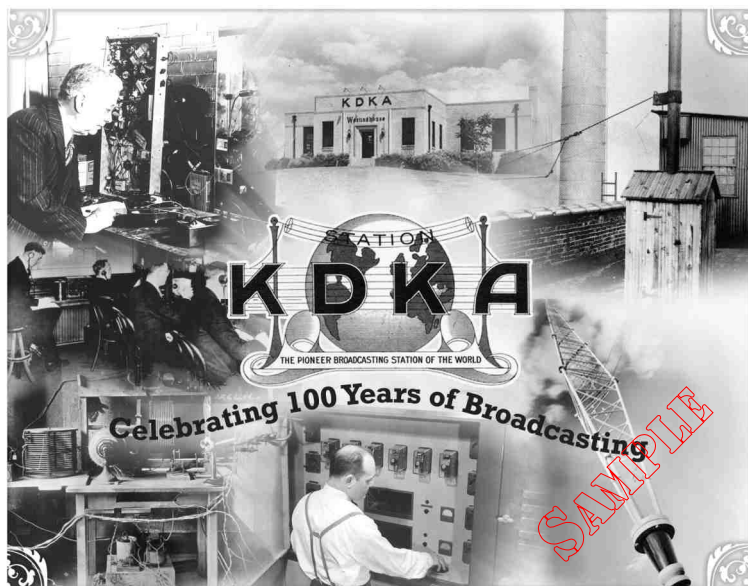
As you may have heard - W8XK will be one of the Special Event stations for the PA QSO Party! They will be operating from the Washington County QTHs of Bill Hill W3WH (CW) and Mike Lazaroff K3AIR (Phone). Thank you to all involved on that account.



K3K K3D K3A
Special event station celebrating 100 years of KDKA

KDKA Radio is the World's First Commercial Radio Station. Frank Conrad of Westinghouse was Assistant Chief Engineer of Westinghouse Electric. An inventor who was fascinated by technology, Conrad built a transmitter, which he located in the second floor of the Westinghouse garage. This experimental station was the first radio station in the world. On October 21, 1920, the US Department of Commerce, Bureau of Navigation, which served as a radio licensing agency at the time, issued the first radio license ever to KDKA on October 21, 1920. On November 5, 1920, Lou Rosenberg broadcast the Harding-Cox presidential election returns, marking the first broadcast by a licensed commercial radio station.

To Radio:				K3K () K3D () K3A ()		
DATE	UTC			MODE		RST
Day	Month	Year				



Illustrations:

Above Right & Right:

The front and back of the Special Event QSL Cards for K3K, K3D, K3A & W8XK

Left:

The Front of the Special Event Certificate

Our thanks to the Graphics Artists at KDKA/Entercomm and to Chris Hudak WA3PBL for this fantastic artwork!



W8XK
PITTSBURGH, PENNSYLVANIA

KDKA Radio is the World's First Commercial Radio Station. Frank Conrad of Westinghouse was Assistant Chief Engineer of Westinghouse Electric. An inventor who was fascinated by technology, Conrad built a transmitter, which he located in the second floor of the Westinghouse garage. This experimental station was the first radio station in the world. On October 21, 1920, the US Department of Commerce, Bureau of Navigation, which served as a radio licensing agency at the time, issued the first radio license ever to KDKA on October 21, 1920. On November 5, 1920, Lou Rosenberg broadcast the Harding-Cox presidential election returns, marking the first broadcast by a licensed commercial radio station.

To Radio:				W8XK		
DATE	UTC			MODE		RST
Day	Month	Year				

All VP8 Licenses Cancelled

Alan Cheshire VK6CQ / VKØLD / VP8PJ via OPDX

Perth, Western Australia, August 28th, 2020 -- Britain's desire to maintain its claim over its slice of the Antarctic plus the South Shetlands, South Orkneys, South Georgia and the South Sandwich Islands is fast waning, it would seem.

All existing VP8 'lifetime' amateur radio licensees for these regions have recently been abruptly canceled by the body responsible for issuing them (the Falkland Islands Government) and there are no longer provisions in place to issue new licenses for these regions as the VP8 prefix apparently now only applies to the Falkland Islands.

Anyone planning a future DXpedition to any of these five entities will now have to get a license from either Buenos Aires or Santiago instead.

The reasoning behind this astonishing action remains unclear.

The last known licensed operation was VP8PJ from the South Orkneys earlier this year.

Meanwhile, in the Falklands themselves, all 'lifetime' licenses held by overseas amateurs have also been canceled in the same manner and such licenses are now reserved exclusively for permanent residents.

Visiting amateurs to the Falklands will now only be issued a temporary licence for the duration of their visit.

Note that the Falklands do not participate in CEPT and operating as VP8/ Homecall is not legal there.

For updates, see: www.openfalklands.co.uk

WWROF Board Changes

World Wide Radio Operators Foundation, Inc.

Fredricksburg, TX - August 21st, 2020 - The World Wide Radio Operators Foundation, Inc. (WWROF) is pleased to announce the election of Philipp Springer DK6SP to its board of directors, effective immediately. WWROF Chairman Tim Duffy K3LR says, "We're excited to welcome Philipp to our leadership team, in particular for his enthusiasm for radio sport and highly respected representation of the youth in our hobby."

Philipp, who is 22 years old, began his ham radio career in early 2008 at the young age of ten, ultimately being issued the novice call sign, DO6PS. In 2013 he upgraded to a full operating license and was granted the call sign DK6SP, which he has held ever since.

Philipp is a member of the IARU Region 1 Youth Working Group and the German amateur radio society DARC, where he is also responsible for leading activities for Youngsters-on-the-Air (YOTA) - Team Germany program. In addition, he is also a member of AGCW-DL, SKCC, CWOPS and the Bavarian Contest Club. Philipp proudly participated at WRTC 2018 in Germany as Team Y82D, together with youth team member HA8RT, achieving a respectable 23rd place finish amongst 63 teams staffed by the best contest operators in the world. Most recently, Philipp gained his bachelor's degree in Business Administration with emphasis on logistics management and plans to progress as a master's student.

In addition, WWROF is announcing the retirement of Dennis Motchenbacher K7BV from its board of directors. "On behalf of the WWROF board, we want to thank Dennis for his invaluable contributions to our activities and unique industry insight," said Tim Duffy K3LR. Dennis continues to be a dedicated operator on the HF and VHF bands and looks forward to being even more active.

For more information on the WWROF, please visit <https://wwrof.org/>

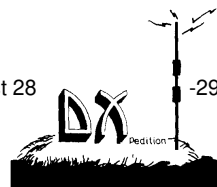
Castro Valley, CA, August 30th, 2020 – The Yasme Foundation announces the following grants made at its August 26th board meeting.

- Grant to Seychelles Amateur Radio Association (SARA) for financial support on upcoming amateur exams.
- DokuFunk Austria (Research and Documentation Center for the History of Radio Communications and the Electronic Media). Grant to continue hosting Lloyd and Iris Colvin DXpedition material, and to develop a historical presentation from existing pictures, video, and audio.
- Yasme also supported the transfer of the HZ1AB QSL collection to Dokufunk.



The YASME FOUNDATION
PO Box 20578 • Castro Valley, California 94540
www.yasme.org

DX News Briefs



The **ZD7W** expedition for the CQ WW DX CW Contest 28 November will not take place. W6NV will try again to activate Saint Helena (AF-022) in 2021.

The **E6AM** and **A35GC** expeditions have been postponed until October & November 2021 "due to the restrictive measures related to COVID-1"

JJ1DQR has cancelled his **8Q7QR** operation from Male Island (AS-013) due to the pandemic.

KV1J has rescheduled his fall **FP/KV1J** operation to 29 June – 13 July 2021 due to pandemic travel restrictions. More information at <http://www.kv1j.com/fp/July20.html>

The Italian DX Team have postponed the **TT8RR** & **TT8XX** DXpedition until 2021, COVID-19 permitting. More information at <http://www.i2ysb.com/it>

DK1MAX has postponed his **XT2MAX** DXpedition until 2021 "due to the current travel limitations."

DL7VOA has postponed his **YN5AO** DXpedition until 2021.

The **XRØYSP** Easter Island DXpedition has been postponed to 2021.

5Z4/G3AB is now **5Z4VJ**. He has been QRV since September 2019 on HF (no 160). QSL both calls via MØURX.

ZS5J is now **5Z4J**. QSL via LotW until further notice.

E51WL is again QRV from Penrhyn Atoll, North Cook, 20 meter FT8.

R13KHL will be QRV through 6 September to celebrate the 13th season of the Kontinental Hockey League. QSL via OQRS

9G5GS will be QRV through 15 September, most evenings, 160 – 10 on FT8 & SSB. QSL via IZ4YGS

Z81D will be QRV through 10 November, during his free time, SSB and FT8 (No CW). QSL via OM3JW

Starting 1 September, and continuing for the next 6 years, **GB5ST** will be QRV to celebrate 54 years of *Star Trek*. QSL via the RSGB Bureau or as directed.

4A5ØCRH will be QRV 1 September – 31 December, to celebrate the 50th anniversary of Club de Radioaficionados Hidrocalidos (XE2CRH), 160 – 6, CW SSB FM and Digital modes. QSL via XE2AU. "Every QSO will be confirmed."

8N1M will be QRV 1 September – 31 December from Minato-ku, Tokyo. QSL via 8N1M

9H3SAT will be QRV 4 – 18 September from Gozo Island (EU-023), HF, CW & SSB. WSL via DL2AAZ only (he does not use ClubLog or LotW)

AO5CLE will be QRV 5 – 20 September to commemorate the centennial of the Spanish Legion, HF & VHF, CW SSB FT8 and other Digital modes. QSL via EA5GTU

3A/IW1RBI will be QRV 11 – 13 September, 80 – 6, SSB RTTY & FT8. QSL via IW1RBI

QSL Routes

4A5ØCRH via XE2AU
4L/G4ENL via HB9DVG
5B6ØAMX via LZ3SM
5E7N1L via RW6HS
5E7PA via RW6HS
5E7QR via RW6HS
5R8UX via IKØFUX
5T5PA via PA5X
5Z4/G3AB via MØURX
5Z4VJ via MØURX
6E6E via XE1KK
9G5GS via IZ4YGS
9H3SAT via DL2AAZ
9H6DL via 9H1XT
9J2BS via EA5GL
A6ØEMM/3 via A61BK
AO5CLE via EA5GTU
CB6P via CE6TRA
CB6Q via CE6TRA
CB6T via CE6TRA
CB6TEB via CE6TRA
CN18FWC via RW6HS
CN8HAN via RW6HS

CP6CL via W3HNK
CT7ABA via DKØMM
DA2Ø25C via DM9TT
DKØDFV via DL7AFS
DM6V via DL5AXX
EF5Y via EA5FR
EM7EFF/P via UR7EY
EM9WFF/P via EA5EL
FR8TG via F8FPY
GB8ØØBOB via 2EØNDZ
GI5I via GI4DOH
HA5ØKHW via HAØHW
HF1ØØBW via SP3POB
HG6Y via HA6OI
HZ1SK via IZ8CLM
IA5MO via IK4RLM
JD1BLY via JI5RPT
LG5LG via LA7TIA
NU4E via DJ8OG
OP7B via ON7BJ
OQ4U via ON4AMX
OX3LX via OZØJ
P42WW via P41G

PJ4DX via MØURX
PJ4KY via MØURX
PJ4NG via K4BAI
PJ4NX via MØURX
PJ4TEN via MØURX
R9ØWDW via RZ5D
RA/N2TA via RW1AI
RA75RA via R2ATC
SA5K via SM5ELV
T45FM via RW6HS
TI7W via MØURX
TM1CY via F5PBL
TM17FFF via F4GFE
TM76DP via F4GFB
UT/N2TA via RW1AI
YØ16IPA via YØ3AAS
Z81D via OM3JW
ZM1A via ZL3CW

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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Antenna Zoning or PRB-1 Issues?

Contact: **Michael S. Lazaroff K3AIR, Esquire**

Lazaroff & Suhr, Attorneys at Law

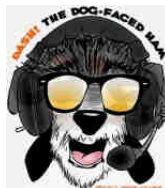
277 West Main Street, Saxonburg, PA 16056

Phone: 724-352-4905

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



US Amateurs by Class as of August 31st, 2020:

Novice	8,513
Technician	420,342
General	189,041
Advanced	39,786
Extra	155,966
Club	12,647
Total	826,296

All-Time High 08/31/2020 826,296

Last 90 Days: New Amateurs 8,829

Callsign Changes 2,929

Class Changes 3,679

No Longer Licensed 5,658

All Updates (*) 31,605

(*) Includes renewals, address changes, etc.

Information gathered from FCC Daily Updates, courtesy of Hamdata.com

Latest Region 3 Sequential Calls Issued as of August 31st, 2020:

Group A	AC3GJ
Group B	KF3EU
Group C	(none available / all issued)
Group D	KC3PXW

Information gathered from FCC Daily Updates, courtesy of Hamdata.com

If you've downloaded the **WASHRag** from the N3SH web site, or picked up a copy from a friend... you can sign up to have the PDF copy sent directly to your email. You **do NOT** have to be a member of **WASH**!

Just send an email to wa3sh-subscribe@yahoogroups.com and the automation should take care of the rest!



FCC News

Courtesy of the American Radio Relay League

Newington, CT, August 12th, 2020 – The FCC will auction sharing rights to the upper 50 MHz of the 3300 – 3500 MHz secondary amateur radio allocation to commercial 5G interests in the wake of the Department of Defense (DoD) agreement to share spectrum at 3450 – 3550 MHz. The entire band currently supports a variety of military operations, and amateur radio has a long history of peaceful coexistence with the Department of Defense as a secondary user of this spectrum.

Late last year, the FCC proposed to delete the amateur secondary 3300 – 3500 MHz secondary allocation as well as the amateur-satellite allocation at 3400 – 3410 MHz. The FCC could auction the 100 MHz of spectrum in early 2022. This latest move makes a contiguous band of spectrum from 3450 – 3980 MHz available for commercial 5G networks.

"For a number of years, the National Telecommunications and Information Administration (NTIA) and FCC have focused on the 3450 – 3550 MHz band as the spectrum most conducive to sharing with commercial users," said ARRL Washington Counsel David Siddall K3ZJ. "Monday's statements announced that a framework for sharing has been worked out."

In December 2019, the FCC adopted a *Notice of Proposed Rulemaking (NPRM)* in WT Docket 19-348 proposing to delete the 3300 – 3500 MHz secondary amateur band. ARRL strongly opposed the move in its comments on the *NPRM*, which put forward the FCC's plans to remove "existing non-federal secondary radiolocation and amateur allocations" in the 3300 – 3500 MHz band and to consider options for relocating incumbent non-federal operations.

Siddall said the spectrum below 3450 MHz presents a more difficult government/commercial sharing scenario, and that future sharing there remains uncertain. "We continue to argue that the amateur secondary allocation should not be deleted in this band," he said. "We recognize that our access is secondary, and ask only to be given a chance to use our considerable technical skills to work around whatever future uses may be implemented in this spectrum."

The spectrum repurposing is in response to the MOBILE NOW [Making Opportunities for Broadband Investment and Limiting Excessive and Needless Obstacles to Wireless] Act, enacted in 2018 to make new spectrum available for mobile and fixed wireless broadband use.

"Together with the spectrum being made available for 5G in the C-band as well as the 3.5 GHz band, we are now on track to have a 530-megahertz swath of mid-band spectrum available for 5G from 3.45 to 3.98 GHz," FCC Chairman Ajit Pai said in a statement. "The FCC looks forward to moving quickly to adopt service rules for the 3.45 GHz band and then hold an auction to bring this prime mid-band spectrum to market."

New Contest to Debut

Newington, CT, August 18th, 2020 – A new amateur radio contest for portable operators — the Fox Mike Hotel Portable Operations Challenge (**POC**) — will debut October 3rd – 4th. The event is aimed at leveling the competitive playing field between fixed stations and portable stations. **Scoring** for the POC, based upon a kilometers-per-watt metric, will be handicapped in favor of the portables. The contest is the brainchild of Frank Howell K4FMH.

Sponsors include *National Contest Journal (NCJ)* — an ARRL publication — but the POC will not be an official *NCJ* or ARRL contest.

"NCJ's role is to encourage hams who don't contest to give it a try," *NCJ* Editor Dr. Scott Wright K0MD, said. "It will encourage activity by operators who are limited by real estate and do not have a full-blown contest station. Events like this stimulate more interest in contesting, and this will have an international scope to give chances to snare some new DXCC entities."

"I think the [POC] steering committee, consisting of both veteran DX contest participants and some of the best portable operators in the world, has come up with something worth giving a go," Howell said. "With this scoring metric, it's more about radiosport than radio gear."

According to the **contest rules**, scoring will be calculated using the distance between stations (Maidenhead grid squares) in kilometers divided by power output in watts. Fixed (QTH) stations will compete against portable (P) stations on 80, 40, 20, 15, and 10 meters. Allowable modes include phone, CW, and digital. For the 2020 event, the number of transmitters concurrently in use will be restricted to two.

Portable stations may not make use of permanently installed amateur radio equipment or facilities but may use ac mains power. The exchange is call sign, station class (P or Q), consecutive serial number, and four-character grid square.

Contact **Howell** for more information. — Courtesy ARRL

Has Roadway found the tower yet?

NY9H Virtual Hamfest

Bill Steffy NY9H ny9h@arrl.net

Prosperity, PA, August 28th, 2020 – About this time last year I had an accident (tractor rollover/crash) resulting in a broken back...I'm fine now. This suggested that I catalog all my radio stuff, for my wife's sake, should something bad happen again.

Without any Hamfest to truck all my (stuff) , I've decided to call it a virtual hamfest..rather than Estate Sale'.

Any questions , or reasonable offers will be entertained.

Viewing, while maintaining proper distance is encouraged. Some stuff is way too heavy to be shipped, so you'll need to pick it up anyway. So let's stimulate the economy.

Editor's Note: This is not the complete list, due to space limitations. Please contact Bill directly for the latest version of the full list.

Item #	Mfg.	Model	Description (All Used)	Cost	Sail Price
3	ADI	247	VHF TRANSCEIVER ????????		\$65.00
4	ALTEC	1592/?	COLLECTOR GREEN PA MIXER -PREAMP 80 watt amp with 5 channel mixer		\$450.00
5	ANCHOR	AN-100	25 WATT AV POWERED SPEAKER PERFECT SHACK SPKR 110VAC		\$88.00
6	ANCHOR	AN-100	25 WATT AV POWERED SPEAKER PERFECT SHACK SPKR 110VAC		\$88.00
7	apache	1800	less expensive case than Pelican		\$10.00
8	apache	1800	less expensive case than Pelican		\$15.00
10	ASTATIC	d 104	most famous desk microphone crystal mic, mike only not stand		\$45.00
11	ASTATIC	tug8	ASTATIC ptt stand FITS D1204 D-10 ETC		\$55.00
12	ASTATIC	10-D	astatic amateur dynamic microphone		\$65.00
13	ASTATIC	K2	vintage collectable 1938 DUAL CRYSTAL ELEMENT		\$75.00
15	ASTRON	rm 50	50 amp linear DC station supply	\$360.00	\$210.00
16	ASTRON	RS=12A	12 AMP NEEDS TO BE REPAIRED WITH EXTRA OUTPUTS AND REGULATOR		\$40.00
17	ASTRON	RS-7A	13VDC DELUXE REGULATED POWER SUPPLY		\$60.00
18	BEARCAT	386	UNIDEN HANDHELD TRUNKING DIGITAL SCANNER		\$120.00
19	BEARCAT	RMT HEAD	REMOTE CONTROL FOR 996 OR 396		\$150.00
20	BHI	INLIINE	BHI NOISE ADJUSTABLE REDUCTION SYSTEM THE BEST NR ./.... 12vdc		\$90.00
21	BHI	SPEAKER	BHI NOISE REDUCTION SPEAKER base or mobile 12 vdc		\$86.00
22	BOB HEIL	EQ 300	MICROPHONE EQUALIZER 12 VDC ANY MIC ANY RADIO		\$45.00
23	BOB HEIL	EQ 200	MICROPHONE EQUALIZER 12 VDC ANY MIC ANY RADIO		\$40.00
25	CALRAD	DM-16	CALRAD MICROPHONE COLLECTOR DYNAMIC DM-16 IN BOX RCA CLONE		\$250.00
29	COMTEK	182	HANDHELD WIRELESS MIC SYSTEM BROADCAST MR-182 RCVR M-182 VHF	\$1,200.00	\$110.00
30	COMTEK	182	HANDHELD WIRELESS MIC SYSTEM BROADCAST MR-182 RCVR M-182 VHF	\$1,200.00	\$110.00
31	DALITE		50 INCH RENTAL PROJECTION SCREEN WITH INTEGRATED STAND		\$180.00
32	datong		rf clipper increase your avg signal by 6 dB HOOK INTO MIC LINE		\$75.00
33	DELL	1402A	VGA DELL COLOR PROJECTOR		\$170.00
35	ELAD	FDM DUO	10 WATT SDR XCVR & SW WITH 4 RECEIVERS.. REMARKABLE AUDIO	\$1,195.00	\$860.00
36	ELAD	SP-1	20 WATT SHACK SPEAKER WITH 3 STEP & MUTE BUTTON NEW PRODUCT	\$140.00	\$110.00
34	ELECRAFT	K3 LOADED	100 watt xcvr loaded , NEW SYNTHS, SECOND RCVR, TUNER XTALS FILTERS,,,	\$5,500.00	\$3,200.00
37	ELECRAFT	kx3 kxp3 kxpa100	HF PORTABLE RIG , PANADAPTER , 100 WATT AMP WITH TUNER	\$3,700.00	\$2,400.00
38	ELECRAFT	K2 10 ANT BAT	10 WATT XCVR WITH 10 W ANT + TUNER & BATTERY SSB NB IN PELICAN CASES	\$2,300.00	\$1,300.00
39	ELECRAFT	EC 100WT AMP	EC2 WITH 100 WATT AMPLIFIER & 100 WATT TUNER IN PELICAN CASES	ABOVE	
40	farhan	ubitx dlx	delux upgrade board fpr ubitx needs assembly & some parts	\$80.00	\$45.00
41	farhan	bitX 40	BITX CLUB 40 METER CW IN OPLASTIC ENCLOSURE	\$80.00	\$60.00
42	farhan	Ubitx	UBITX IN ENCLOSURE 80 TO 10 METER 8 WATT SSB MULTIBAND	\$160.00	\$120.00
98	wb8tee	ubitx dlx	delux upgrade board fpr ubitx needs assembly & some parts	\$80.00	\$45.00
43	FLUKE	8051	DESK DIGITAL MULTIMETER WITH BATTERIES		\$55.00
44	GREEN HERON	RT20	ROTOR CONTROLLER ramp up ramp down computer controlled THE BEST	\$590.00	\$450.00
45	HALLICRAFTERS	HT-40	50 WATT HF TRANSMITTER 80 THRU 6 METER TRANSMITTER AM CW		\$60.00

NY9H Virtual Hamfest

 Bill Steffy NY9H ny9h@ar1.net

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46	HALLICRAFTERS	SX 25	HF RECEIVER POST WAR AM/CW WORKING FINE A 9 !!!	\$200.00	\$130.00
47	HALLICRAFTERS	SX 100	HF RECEIVER VERY CLASSIC DESIGN needs some work, lighrts up with audio	\$350.00	\$185.00
48	HALLICRAFTERS	S 38C	SHORTWAVE RECEIVER 1954 S-38C	\$49.95	\$35.00
49	HAMEG RHODE/ SHWRTX	8000 SYSTEM	8000 FRAME WITH 8028 SPECTRUM ANALYZER & 80__ FUNCTION GENERATOR	\$1,400.00	\$250.00
50	HAMMARLUND	SP-600JX	HF RCVR 500kHz- 54 mHz CLASSIC RACK MOUNT WITH CABINET	\$1,000.00	\$450.00
51	HEATH	DX 60	AM CW HF TRANSMITTER 6146 FINAL 90 WATTS PEP		\$90.00
52	HEATH	HW16	CW HF TRANSCEIVER FULL BREAKIN 80,40 & 15 METERS XTAL CONTROLLED XMTR		\$85.00
53	HEATH	HA 10	VFO FOR DX 60 OR HW 16		\$65.00
55	HP	211	MINI SCOPE AC/DC POWER cond unknown		\$170.00
56	HP	410	AC DC VOLTMETER		\$65.00
57	HP	200CDR	WIDE RANGE OSCILLATOR		\$100.00
58	HP	100	AUDIO OSCILLATOR		\$80.00
59	HP	400E	AUDIO METER AC VOLTMETER		\$70.00
60	HUSTLER		MOBILE ANTENNA SYSTEM WITH 40, 20, 17, 10 COILS		\$85.00
61	HYGAIN	HAM4	ROTOR WITH CONTROL; COND UNKNOWN		\$150.00
62	HYGAIN	HAM4	ROTOR WITH CONTROL; COND UNKNOWN		\$150.00
63	ICOM	7800	200W XCVR 3.1 NEW IN NOV 2012 ORIGINAL DOUBLE BOXING PERFECT CONDITON	\$10,600.00	\$4,500.00
65	icom	751	100 watt xcvr & SW 1.8 thru 30 mHz 12vdc	\$1,450.00	\$340.00
67	icom	471	440 multimode 100 watt bought for sat work	\$700.00	\$285.00
69	icom	701	160 TO 10 METER HAM BAND ONLY TRANSCEIVER 100 WATTS WITH EXT SPR &PWR SUPPLY	\$1,400.00	\$250.00
70	icom	2710	dual band 50, 10 5 watt U/V xcvr ???		
71	icom	2700	dual band 50, 10 5 watt U/V xcvr ???		
73	icom	f 121	50 watt commercial 136 to 174 mHz transceiver	\$340.00	\$150.00
74	icom	ic28	2 meter fm 25 watt		\$110.00
75	icom	38	220 fm 25 watt		\$200.00
76	icom	48	440 25 watt fm		\$110.00
77	icom	f520	VHF 136-174 40 WATT STILL IN BOX ! Trunking capable OPTIONAL SmarTrunk II™	\$400.00	\$120.00
78	ICOM	706mkIIg	HF UHF VHF MOBILE TRANSCEIVER	\$1,200.00	\$600.00
79	ICOM	SP-20	icom SPEAKER TO MATCH 7800	\$340.00	\$200.00
81	JBL BY UREI	6260	JBL BY UREI 6260 COMMERCIAL TWO CHANNEL POWER AMP	\$450.00	\$150.00
82	JOHNSON	RANGER	HF TRANSMITTER VERY CLASSIC VINTAGE PHONE (AM) CW 6146 FINAL PI OUTPUT WORKS FINE	\$500.00	\$325.00
84	kent		dual paddle		\$120.00
85	kenwood	d-700	vhf dual band especially for aprs... can add keyboard for aprs digital comms	\$850.00	\$400.00
86	kenwood	RZ-1	AM BROADCAST TO 900 MHZ.. FM STEREO ,,, even cell phone freqs...	\$600.00	\$375.00
87	KIWI	KIWI SDR	HF SDR 10 KhZ TO 30 MhZ WITH BEAGLE CPU TO SEND TO INTERNET.. Opened and tested	\$350.00	\$285.00
88	KLM	KT-34	MASSIVE hi performance TRI BANDER 3" boom FEW MISSING PARTS//available @ M2	\$1,100.00	\$140.00
89	KN2C	DF2020T	kn2c RADIO DIRECTION FINDER df2020t SUPER DOPPLER WITH 4 ANTENNAS	\$460.00	\$350.00
90	KW ELECT	KW107 SUIPER	KW 107 SUPERMatch 250 WATT TUNER; SWITCH; LOAD, SWR & POWER	\$400.00	\$400.00
91	LDG	BA-1	4-1 BALUN		\$45.00

NY9H Virtual Hamfest

Bill Steffy NY9H ny9h@arrl.net

Prosperity, PA, August 28th, 2020 – About this time last year I had an accident (tractor rollover/crash) resulting in a broken back...I'm fine now. This suggested that I catalog all my radio stuff, for my wife's sake, should something bad happen again.

Without any Hamfest to truck all my (stuff) , I've decided to call it a virtual hamfest..rather than Estate Sale'.

Any questions , or reasonable offers will be entertained.

Viewing, while maintaining proper distance is encouraged. Some stuff is way too heavy to be shipped, so you'll need to pick it up anyway. So let's stimulate the economy.

Editor's Note: This is not the complete list, due to space limitations. Please contact Bill directly for the latest version of the full list.

Item #	Mfg.	Model	Description (All Used)	Cost	Sail Price
99	MFJ	625	rf clipper increase your avg signal by 6 dB HOOK INTO MIC LINE		\$55.00
100	MFJ	482	GRANDMASTER MEMORY KEYERR not sure >???		\$30.00
101	MFJ	SBF-2	SSB FILTER Super Selector CW SSB Filter		\$65.00
102	MFJ	7528	DUAL TUNABLE SSB CW SIGNAL ENHANSER		\$90.00
103	MFJ	482	VERSA TUNER II 100 WATT TUNER		\$80.00
104	MFJ	1025	NOISE & INTERFERENCE CANCELER STILL IN BOX	\$209.00	\$140.00
105	MFJ	720	DELUXE SUPER CW FILTER		\$45.00
106	MFJ	259B	SWR ANTENNA ANALYZER WORLDS MOST POPULAR ... NEEDS EXT PWR....	\$250.00	\$100.00
107	MFJ/bencher	422	dual paddle 150\$ bencher with mfj keyer	\$190.00	\$110.00
108	MILLEN	92201	300 WATT ANTENNA TRANSMATCH JUNIOR	\$385.00	\$180.00
109	MOSLEY	CLASSIC 33	3 ELEMENT TRIBANDER 10-15-20	\$650.00	\$120.00
110	MOSLEY	TA 36	6 ELEMENT TRIBANDER	\$1,250.00	\$130.00
111	motorola		25 watt mini mobile speaker 12 vdc for shack or mobile very loud...	\$120.00	\$25.00
112	motorola		25 watt mini mobile speaker 12 vdc for shack or mobile very loud...	\$120.00	\$25.00
113	motorola	spectra	40 watt vhf mobile with remote head	\$1,400.00	\$100.00
114	motorola		25 watt mini mobile speaker 12 vdc for shack or mobile very loud...	\$120.00	\$25.00
116	NATIONAL	NC-100	EARLY HRO DIAL SET ROUGH NEEDS REPAIR UNKNOWN		\$80.00
117	NETGEAR	READYNAS NV+	RAID SYSTEM HOLDS 4 DRIVES NE T CONNECTION BAD DRIVES ????	\$700.00	\$250.00
118	OUTBACK	PERTH	MULTIBAND MOBILE (OR BASE) hf ANTENNA 75 THRU 10 METERS 100 WATT	\$375.00	\$120.00
119	PALOMAR	M-827	PWR SWR METER QRP TO 2KW	\$160.00	\$75.00
120	PALSTAR	AT-AUTO	1500 WATT AUTO TUNER MOTOR DRIVEN INDUCTOR & CAPACITOR	\$1,250.00	\$600.00
121	PANASONIC	CF-WEB164	MOBILE MOUNT FOR TOUGHBOOK CF-18 & CF19 WITH CELL & WIFI ANT CONNECTIONS		\$120.00
122	PANASONIC	CF-18	TOUGHBOOK OS ? 98XP		\$85.00
124	PELICAN		ROLLER CASE aircraft	\$260.00	\$160.00
125	PELICAN	1520		\$148.00	\$60.00
128	RCA	VTVM	master voltohmst vom legendary vtvm		\$55.00
129	RCA	BC-16A	BC-16 BROADCAST AUDIO console 5 INPUT STEPPED ATTENUATORS ,,, CIRCA 1967	\$4,900.00	\$250.00
130	REALISTIC	PRO 83	UV SCANNER		\$40.00
131	REALISTIC	PRO 2096	MOBILE UV SCANNER		\$85.00
132	REMOTERIG	RRC 1258	BOTH CLIENT & SERVER NEVER USED.. REMOTE ANYRIG WITH CW ICOM CI-V, Kenwood PC-control, Yaesu CAT, Elecraft	\$600.00	\$425.00
133	RENKUS HEINZ		COMMERCIAL HI OUTPUT SPEAKER	\$750.00	\$300.00
134	RF APPLICATIONS	P-3000D	3 KW 1.8 TO 60 Mhz POWER/ SWR DIGITAL METER (IF I CAN FIND	\$360.00	\$120.00
135	RME	4300	COLLECTABLE VINTAGE RME HF HAM RECEIVER 160 - TO 30 Mhz NO WARC	\$400.00	\$190.00
136	RME	DB23	HF PRESELECTOR PREAMP MATCHES 4300	\$100.00	\$25.00
137	SDRPLAY	RSP 2	COMPLETE SDR 1kHz TO 2000MHz ALL HAM BANDS ALL MODES IN PACKAGING	\$180.00	\$150.00
138	SEED	DS211	MINI credit card DIGITAL STORaGE SCOPE STILL IN BOX	\$120.00	\$85.00
139	SENCORE	TF-30	TRANSISTOR PARAMETER TEST SYSTEM		\$40.00
140	SINGER	323-12	AC VOLTMETER TRUE RMS VOLTMETER		\$80.00
141	SKB	1SKB R4U	4 SPACE ROTO-MOLD PORTABLE/ FIELD RACK CASE	\$160.00	\$110.00

Cambria Radio Club WA3WGN Hamfest

Saturday, September 19th, 2020, 9:00 AM—4:00 PM

Revloc Fire Company

547 Cambria Avenue, Revloc, PA 15948

Talk-in on 145.210 (PL 123) or 440.850 (CC1 TG2 TS2 DMR)

All spaces available at a limited first come-first served basis

More Information at <http://cambriaradio.com>



Butler County ARA Swapfest 2020

~~Sunday, September 13th, 2020, 8:00 AM—3:00 PM~~



CANCELLED

WACOM HAMFEST 2020

*Washington County
Fairgrounds*

2151 North Main Street, Washington PA

Sunday, November 1st

8:00 AM to 3:00 PM

Setup at 6:30 AM

Talk-In on 146.790 (No PL)



First Prize:	To Be Announced
Second Prize:	To Be Announced
Third Prize:	To Be Announced
Fourth Prize:	To Be Announced

Main Prize Drawing at 1 PM

Winner Need Not Be Present To Win

Black Box:

What is it? It's a Mystery!

— Only 50 Tickets Sold! —

VE Testing

Breakfast & Lunch Will Be Available

Check www.wacomarc.org for Updates

Vendors contact:
Tom Wright KC3TOM
kc3tom@arrrl.net

412-414-5627

117 Perry Road

Burgettstown, PA 15021

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



WASHfest 2021

The South Hills Hamfest — Now in our **TWENTY SIXTH** big year!
Sponsored by the WIRELESS ASSOCIATION OF SOUTH HILLS AMATEUR RADIO CLUB, INC.

Sunday, February 28th, 2021
8:00 AM until 3:00 PM Rain or Shine (or Snow!)

Home Economics Building, South Park

3735 Buffalo Drive, South Park Township, PA 15129
Behind the Allegheny County Police Station on Brownsville Road

Talk-In on 146.955(-) and 443.650(+) 131.8 PL

Donation \$5



(800) 545-8881

Breakfast & Lunch will be available!



FREE Coffee for the entire Hamfest
courtesy of HAM RADIO INSURANCE ASSOCIATES
of Canonsburg, PA

MAIN PRIZES — You've Got to Play to WIN!

First Prize: To Be Announced

Second Prize: To Be Announced

Third Prize: To Be Announced

Additional Hourly Door Prizes! 2 Special Black Box Prizes (Separate Drawing)!

Main Prize tickets are \$2.00 each, 3 for \$5.00, 7 for \$10, 15 for \$20, 40 for \$50, 90 for \$100

All Prizes Subject to last-minute changes

For Table Reservations, or More Information, Please Contact:

Carol Danko KB3GMN at (412) 884-1466 n3sbf@comcast.net
E-mail us directly at washarc@yahoo.com Check out our website too! www.n3sh.org

Please Note: Early Table Reservations must be paid in full on or before January 31st, 2021.

Reservations received after February 1st, 2021 must include payment in full.

Reserve now... we have sold out in advance eleven years running!

Hamfest Table Reservation Form—Please PRINT LEGIBLY ALL INFORMATION

Name: _____ Email: _____

Address: _____ Phone: () _____ - _____

City: _____ State: _____ Zip: _____

Call Sign: _____

Tables WITH Electricity: _____ X \$15.00 = _____

Tables WITHOUT Electricity: _____ X \$12.00 = _____

5 Or More Tables w/o: _____ X \$10.00 = _____

Please make all checks payable to:
WIRELESS ASSOCIATION OF SOUTH HILLS
PLEASE MAIL RESERVATION TO:
WASHFEST 2021
c/o CAROL DANKO KB3GMN
4246 Seton Drive
Pittsburgh, PA 15227-1244

We reserve the right to resell any tables not occupied by 8 AM, unless prior arrangements have been made!



WIRELESS ASSOCIATION OF SOUTH HILLS, INC.

Membership Application, New or Renewal



I would like to join WASH! I am interested in the following type of membership: ☐ **New Membership** ☐ **Membership Renewal**

(check quarter _____)
(check one)

	<input type="checkbox"/> 1st Qtr Jan-Mar	<input type="checkbox"/> 2nd Qtr Apr-Jun	<input type="checkbox"/> 3rd Qtr Jul-Sept	<input type="checkbox"/> 4th Qtr Oct-Dec
<input type="checkbox"/> (F1) Full Membership:	\$20.00	\$15.00	\$10.00	\$5.00
<input type="checkbox"/> (F2) Full Membership < 18 or > 65 yrs of age:	\$10.00	\$7.50	\$5.00	\$2.50
<input type="checkbox"/> (A1) Associate Membership:	\$10.00	\$7.50	\$5.00	\$2.50

☐ (FM1) Family Membership (\$3.00 x No. of household family members): \$ _____

Name(s): _____

Name: _____

Address: _____

City, State: _____

Home Phone: _____

Email Address: _____

New Members Only:

☐ I do NOT want to be added to the Club E-Mail Reflector

☐ I do NOT want to be added to the Electronic Newsletter Mailing List

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

Signature: _____

Call Sign: _____

License Class: _____

Expires On: _____

Work Phone: _____

Birthday: _____

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

Please make your check or money order payable to the club treasurer, Mark Stabryla.
The Wireless Association of South Hills, Inc. reserves the right to accept or reject new memberships or renewals.
Please return completed membership form along with check/money order to the club treasurer or mail to:

WIRELESS ASSOCIATION OF SOUTH HILLS, INC.
c/o Mark Stabryla N3RDV, VP/Treasurer
1120 McKnight Drive
Bethel Park, PA 15102-2456



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Arghh!
What Mightst We Draw For Ye, Matey?

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CUSTOM QSL ART
HAM GRAPHICS
WEB COMICS
www.dashtoons.com
k1nss@dashtoons.com



2020 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



**ONLINE MEETINGS
UNTIL FURTHER
NOTICE**

The WASHRag

Wireless Association of South Hills, Inc.

Ron Notarius W3WN, Editor

3395 Rosewood Drive

Castle Shannon, PA 15234-2546



N3SH / WA3SH
NP2SH/B

www.n3sh.org
www.washarc.org

