

WASHRAG

TM



VOLUME 22 ISSUE 11
NOVEMBER 2020

Wireless Association of South Hills

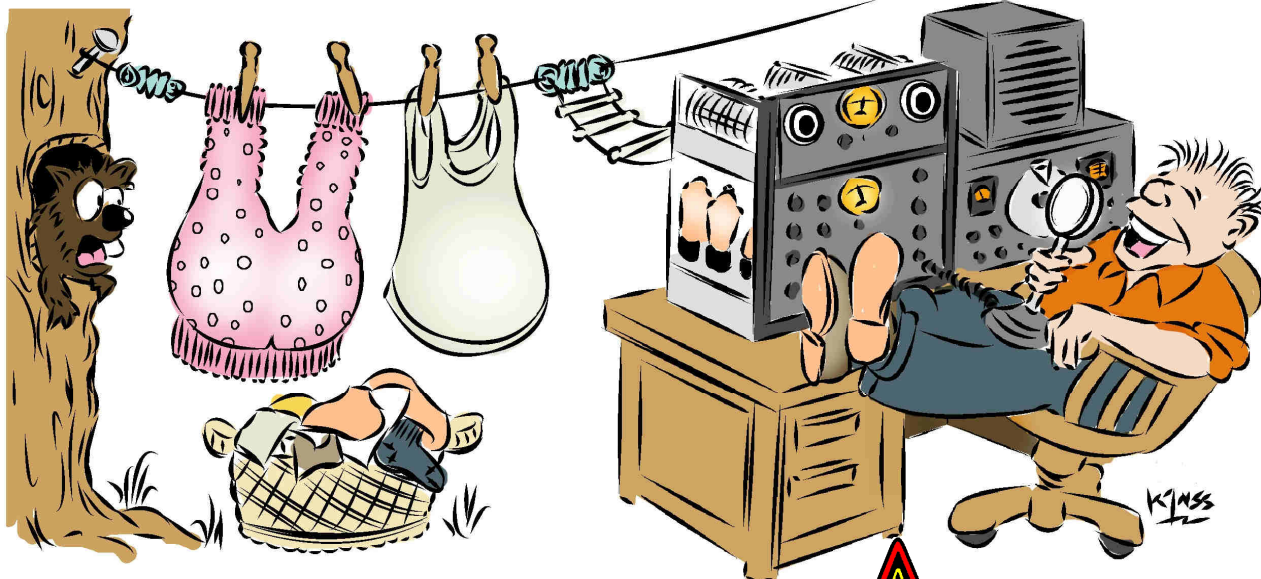


N3SH WA3SH NP2SH/B

www.n3sh.org www.washarc.org



Wireless Association of South Hills



WASHRAG™



VOLUME 22 Issue 11

NOVEMBER 2020

Next Monthly Meeting: Thursday, November 5th, 2020

The next scheduled meeting of the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.** will be on **Thursday, November 5th, 2020.**

Due to the pandemic situation, the conference room at St. Clair Hospital's Outpatient Center is not available, and has been replaced by an on-line Zoom meeting, also starting at 7 PM.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: Team N3ZK during the 2020 Pennsylvania QSO Party

Cover Photo by courtesy of and © Copyright 2020 Jim Sanford WB4GCS

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.

This issue is © Copyright 2019 by the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.**

Editor & Publisher: Ron Notarius W3WN

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

Ron Notarius W3WN
3395 Rosewood Drive, Castle Shannon, PA 15234-2546
e-mail: newsletter@n3sh.org or w3wn@arrl.net

"The WASHRag", "The Mariner", SHARCfest, South Hills Hamfest, WASHfest, WASHfest 2019, N3SH Net, WA3SH Net and WASHNet are trademarks of the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.**

The **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.** was founded on August 23rd, 1993, as the original **SOUTH HILLS AMATEUR RADIO CLUB**, and operated under that name through 1998. WASH was also known briefly in late 1998 as the **N3SH AMATEUR RADIO CLUB**. It is not in any way affiliated with the "South Hills Amateur Radio Club, Inc." and is not responsible for that group, 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.

Tony's Musings

This Thursday November 5th Will be Club Elections so I urge everyone to attend the Zoom Meeting.

And don't forget special event during November will celebrate the 100th anniversary of Pittsburgh's KDKA as the first (licensed) commercial broadcast radio station.

Using both temporary call sign 8ZZ and KDKA (because the KDKA license had not arrived in time), the station broadcast the 1920 presidential election results. Many Pittsburgh area amateur radio clubs will participate, using special calls **K3K**, **K3D**, **W8XK**, and **K3A**.

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 November 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.

Another month... no in-person meetings, no last-Saturday breakfast... no **WACOM Hamfest**, or any hamfest, no in-person VE exams. Yeah, it's getting a bit old. Regardless, **the pandemic situation** is still ongoing, and we just have to find a way to make the best of it, until the situation gets under control, once and for all, and we can start getting back to normal.

So, suffice to say, another month with no club breakfast, another monthly club meeting coming up on Zoom. This won't... can't... last forever. In the meantime, grin and bear it.

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 before the end of the month. Finding a venue has been... challenging... so we may have to do it at someone's kitchen table. More will be forthcoming on the club reflector, as the details get worked out.

OK, so on to a few more positive things.

You'll see over on Page 11 the announcement about the **KDKA Centennial Special Event Station**, and just as importantly, **how you can participate**. Yes, everything started up on Sunday, but we've got a lot of days and operating slots ahead of us. With four calls available – the three 1x1 calls, plus the modern incarnation of the 'original' call, there are plenty of operating opportunities to go around. And here's the thing... this is fun! It's fun being the "rare" station, the one being sought after, even if it's just for an hour or three at a time. So if and when you can, join the group, pick a slot, and give it a whirl. This is literally a once in a century event – enjoy it!

Chuck KC3ELA has announced the date for the 2021 **WASH 2 Meter Simplex Contest**, which will be on Saturday, January 9th. The 2021 rules will be on the club web site in the near future, and will be published in the December **WASHRag**. It's another fun event!

As you may have heard, Verizon has decided to **shut down the Yahoo Groups reflectors**, effective December 15th. (The announcement is reprinted over on Page 18). This doesn't affect the club's (N3SH) email reflector. But it does affect the **WASHRag** mailing list (WA3SH), which still uses it. Our anticipation right now is that the December **WASHRag** next month will be the last issue pushed through the list, and by January, we will have set up a new distribution list. (Google Groups is the most likely source.) Once things are set up, there will be an "Administrative Note" email sent out.

OK, so now comes the time to talk about something a little more serious. **WASHFest 2021**. At the moment, it is still on, and we strongly hope that doesn't change, even as we hear of other 2021 events being cancelled or postponed around the country (Hamcation 2021 in Orlando comes to mind). Simply put, can we safely pull it off without seriously risking anyone's health?

Yes.

Consider this: During November, there was a 2 weekend craft show held at the Washington County Fairgrounds. Vendors from that show occupied both big buildings (including the hall WACOM used, and the one it used to use), and several of the smaller ones. Several hundred to a thousand people were milling about at any one time. Except

**Continued on
Page 4**

Nominations for 2021 WASH Club Officers will be open at, and are being solicited for, the November ZOOM meeting (delayed one month due to circumstances), with final nominations and elections to be held at the December meeting.

Two positions will be open: President, for a 1 year term. And Vice President/Secretary, for a 2 year term.

If you would like to nominate someone, or even yourself, for one of these positions, please make sure that you are at the November meeting; if you cannot attend due to circumstances, please have someone at the meeting make the nomination for you.

The virtual floor will be reopened for nominations, followed by the vote, at the December meeting.

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

Minutes, October 1st Meeting

Dan Campbell K3CMU, Vice President/Secretary, **WASH**

Note: Due to the Pandemic Quarantine, this was a Zoom virtual meeting

Call to Order: 19:10. Presiding Officer: Tony Romano (KB3BYA)

Pledge of Allegiance, Moment of Silence for Silent Keys and others Deserving.

Roll Call: Members Present: 11

Committee Reports:

Treasurer: Mark Stabryla, (N3RDV): October balances read. Motion to accept: Bill W3WH, second: Carol KB3GMN, carried.

Secretary: Dan Campbell (K3CMU): No corrections to the minutes. Motion to accept: Carol KB3GMN, Second: Larry K3VX, Carried.

Repeaters: Frank Bobro (N3FB): Repeating.

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

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

Contests: 2 PA QSO Party (October 10th & 11th 2020) bonus stations. K3MJW for the Skyview Radio Society 60th Anniversary. W8XK to recall radio station KDKA's centennial (100th anniversary). (<https://paqso.org/bonus-station.html>)

Public Service: No Report

Newsletter: Ron Notarius (W3WN): Published.

Volunteer Examiners: Grant Olsen (KC3MLC): No report. (Next exams expected to be hosted at **WASHFest 2021**.)

Ways & Means (including Member Contributions): Carol Danko (KB3GMN): One of our long-time hamfest vendors, Don Poluto (sold tubes) passed at 71 years old.

President's Report - Tony Romano (KB3BYA): All remaining WPA Hamfests have been cancelled for the balance of 2020. **WASHFest 2021** will be the first one in 2021. Should we sell raffle tickets?

Old Business:

Scholarship proposal (Bill W3WH): Foundation for Amateur Radio has not responded to email information requests. Matter is tabled to the November 2020 meeting.

Upper St. Clair antenna zoning issue: WPA Section is communicating with the township. No resolution yet.

New Business:

+ Nominations for 2021 officers will be accepted in the November meeting. Election will be held in December.

+ Source of noise on the 2 meter repeater is unknown.

Good of the Order: Carol KB3GMN will check on the status of the club's PO Box.

Adjournment: Motion Bill (W3WH); seconded Carol (KB3GMN). Carried

Adjourned: 19:51 hours

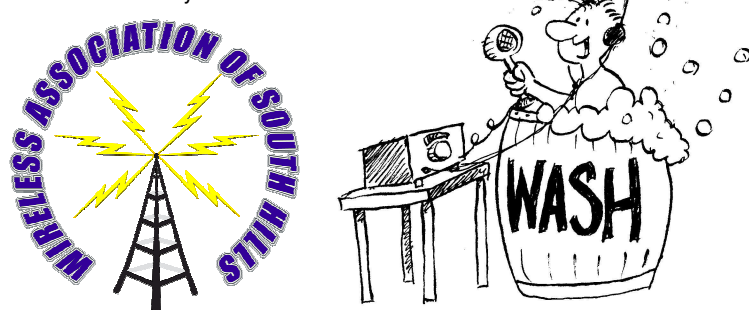
Club News

continued from Page 3

for those eating at the food court, all wore masks. No one really crowded. Plenty of hand sanitizers, wipes, and so forth around for anyone concerned. Heck, the worst thing going on was hearing "Santa and Mrs. Claus" spout politics with some of the adults, as they were waiting for kids to come have their pictures taken.

Granted, the Home Economics Building is a smaller venue. But we also attract a smaller crowd. So,,, If everyone is smart, if we can avoid overcrowding, and if anyone not feeling well doesn't take any risks... we should be able to do it.

Don't count us out yet!



WASH Spotlight: NU3Q



One of the self-proclaimed "ugly mugs" from the KDKA Centennial Special Event operators (who are we to argue?), our very own Bob NU3Q and his Go Box. Photo courtesy of and © Copyright 2020 Bob Mente NU3Q

Every month we're going to feature a **WASH** club member, something about them, something they're involved in or a club-related activity that we're involved in, in the **WASH Spotlight**.

Submissions for the Spotlight should be sent to Ron W3WN at **newsletter at n3sh dot org**

Monthly WASH Breakfast



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

Join us this month at **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	KB3JHR	N3SFB	WASH FL	WASH TN	Silent Keys
K3CMU	KB3YCX	N7TDX	KA3UPY/M	K3OL	
K3GW	KC3ELA	N8NEU	W4ZE	KE3XB	AB3KA
K3HCR	KC3GMM	N9SOJ	WASH NE	N3YBP	K3EED
K3JDS	KC3MLC	NY9H	N0PEU	WASH TX	K3LIE
K3SGT	KC3OCT	W3LE	WASH OR	NB3C	KA3NMG
K3VX	KC4WTT	W3WH	KB3NVL	K3LGM	KB3ENX
K6DWR	KE7FD	W3WN	KB3NVM	KB3IJX	KB3FNM
KA3VXM	N0VLR	WA3PYU	WASH OH	Jane Wagner	KB3FQT
KB3BYA	N3DFK	WA3VSS	N8DPW	WASH VI	KB3JHQ
KB3CMT	N3FB	WA3WXR		NP2JF	N3BPB
KB3DCO	N3KFD	WB4GCS			N3CZZ
KB3GMN	N3RDG				N3FZ
KB3GMU	N3RDV				N3HKQ

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

N3KEH
N3OBD
N3RNK
N3SKR
N3SRC
N3ZEL
N3XFE
W3ZLK
WA3JPP

2020/21 WASH Upcoming Events Calendar

Club Meetings & Other Significant Events — Subject to Change

November	KDKA Centennial Special Event K3K, K3D, W8XK, K3A	https://groups.io/g/kdka100
November 1 st	WACOM Hamfest	CANCELLED
November 5 th	WASH Meeting	ZOOM MEETING
November 7 th — 9 th	ARRL Sweepstakes CW	http://www.arrl.org/
November 21 th — 23 rd	ARRL Sweepstakes Phone	http://www.arrl.org/
November 28 th — 29 th	CQ WW DX Contest CW	http://cqww.com
December 3 rd	WASH Meeting	ZOOM MEETING
December 4 th — 6 th	ARRL 160 Meter Contest	http://www.arrl.org/
December 12 th — 13 th	ARRL 10 Meter Contest	http://www.arrl.org/
December 20 th	ARRL Rookie Roundup	http://www.arrl.org/
December 31 st	Straight Key Night	http://www.arrl.org/
January 7 th	WASH Meeting	ZOOM MEETING
January 9 th	WASH 2 Meter Simplex Contest	http://www.n3sh.org
February 4 th	WASH Meeting	ZOOM MEETING
February 20 th - 21 st	ARRL International DX Contest CW	http://www.arrl.org/
February 28 th	WASHFest 2021	Home Economics Building, 3735 Buffalo Drive, South Park
March 4 th	WASH Meeting	ZOOM MEETING
March 6 th - 7 th	ARRL International DX Contest SSB	http://www.arrl.org/
April 1 st	WASH Meeting	ZOOM MEETING
May 6 th	WASH Meeting	ZOOM MEETING

Pa QSO Party 2020: Team N3ZK

Photos Courtesy of and © Copyright 2020 Jim Sanford WB4GCS



Team N3ZK 2020:

(L—R) Kevin N3KFD, Paul NØVLR, Eddie KC3QAH, Randy N3ZK, Frank N3FB, Jim WB4GCS

Pa QSO Party 2020: Team N3ZK

Photos Courtesy of and © Copyright 2020 Frank Bobro N3FB



W8XK & The 2020 Pa QSO Party

Bill Hill W3WH Photos Courtesy of and © Copyright 2020 Ron Notarius W3WN

Chartiers Township, PA, October 9th, 2020 — I'm writing (the first part of) this the day before the Party begins. The location of the W8XK Bonus Station CW is in Washington County, Pa at the QTH of W3WH. One would think that mounting a CW effort from my QTH which has good equipment and "decent" antennas at all times would be a slam dunk. Actually it turned out to be anything but.

This story begins a couple of months ago when Ron W3WN was informed that W8XK, which is the original call (as 8XK) of KDKA Pittsburgh, which is celebrating its Centennial this November, was granted Co-Bonus status for this year's edition of the Pa QSO Party. Ron is Trustee of the call, which is now issued to the Greater Pittsburgh DX Association, whose President is Mike K3AIR. The other bonus station is K3MJW Skyview Amateur Radio Club. They are celebrating their 60th Anniversary.

Ron felt that the best way to approach this honor would be to have phone and CW in two locations remote from each other. It was concluded that Mike would run phone from his QTH in South Strabane Township also in Washington County and CW would happen at W3WH.

After that issue was settled the thinking, planning and discussing began. For quite a few years Larry, K3VX, Harold (aka Scott) and I W3WH have been a QSO Party team and have operated from lots of different places around the State. This year we originally decided to set up in Greene County but the location chosen turned out to be too difficult for us to use and then the opportunity to be W8XK popped up. The downside to it is that Harold is our phone guy and we're doing only CW. We think we've solved that by having a rig which includes a code reader to supplement Harold's code skills. It's yet to be seen how this works out but we're optimistic since others who will come to operate aren't CW ops.

The difficulty with my QTH is that my lot is 40 x 120. Not ideal for long high antennas to say the least. However, I am blessed with woods behind my lot and very supportive neighbors. Until a week or so ago we planned to use two center fed zepps and a vertical. Well that changed when the feed line to one the the zepps broke and the antenna is stuck up in the trees. #\$\$@&*!!!!

Larry K3VX to the rescue. He suggested we use a 40 meter dipole which he had in storage but still had lots of Q's left in it. We installed it as an "L" which is 33' vertical and the other half horizontal about a foot above the ground. Voila! It works. The vertical we're using is repurposed from my 160 T Top vertical converted into an all band vertical. All the antennas are fed using remote tuners at their bases and that seem to work well.

The rigs we're using are Larry's Icom 7300 and my Kenwood TS-590SG. We also have an Icom 756 Pro 2 and a Kenwood TS990s in reserve. Logging will be via N3FJP.

Probably our biggest challenge was to eliminate (minimize) interference between the rigs. Those of you who have been to WASH FD's know that this has been an ongoing challenge that we've solved with widely spaced antennas and good bandpass filters. For once Murphy has been kind to us and by using the WASH Club's supply of extra bandpass filters interference is minimal at worst. Yesss! It looks like everything will work.

We have an extra antenna since we're using only two rigs. We thought about three rigs but trying that would really be pushing our luck with interference and available ops.

So at this point everything is pretty much ready to go. We're keeping our fingers crossed that Murphy is out of town this weekend. To be continued.....

Update, October 12th, 2020 — The 2020 Party is now in the books. The CW crew at my QTH certainly enjoyed themselves and ate well. There were good things about the weekend and some not so good. After dupes (more about them later) we ended up with 499 Q's but we missed 13 Counties. It wasn't for lack of effort but as we all acknowledge CW activity is down and once again 40 meters was very long. For instance, of the first 12 Q's on 40 meters, only 1 was in Pa.

We can certainly list lots of excuses why we didn't do better but the guys here think that the "W8" on CW was hard to "sell" as an in Pa call and furthermore as a Bonus station.

That being said, Murphy didn't visit all weekend. Our equipment and antennas all functioned as we wanted. Our antennas were all quite close to each other but the bandpass filters worked so well that we never heard each other as we plied the airwaves giving out bonus Q's. Even the odd 40 meter "L" worked very well. Speaking of that we worked several Europeans both on 20 and 40 meters including Sweden, Germany, Netherlands, Belgium, Hungary and the Slovak Republic. They all had big signals.

Speaking of "Dupes" if there was an award for the most dupes, we would definitely be in the running. In all the events I've been part of, The 2020 Party was definitely on top of the list for producing dupes. A few guys were adamant that we were wrong and probably went away angry with us but the log didn't lie.

Our crew consisted of Larry K3VX with his Icom 7300, Bill W3WH with a Kenwood TS590SG, Harold K3HCR who was our enthusiastic spotter, Mike WA3PYU who packs a mean hand key and Ron W3WN who worked almost all of our 160 contacts on Saturday night.

Ron recalls that at the bottom of another sunspot cycle, 40 meters was also long. His point being that once we get further into the new cycle 40 should behave more traditionally. I hope he's right.

Being a bonus station was good but our team is already talking about next year and we're looking forward to getting Larry his "sweep". We'll probably go back to Mercer or Beaver Counties.



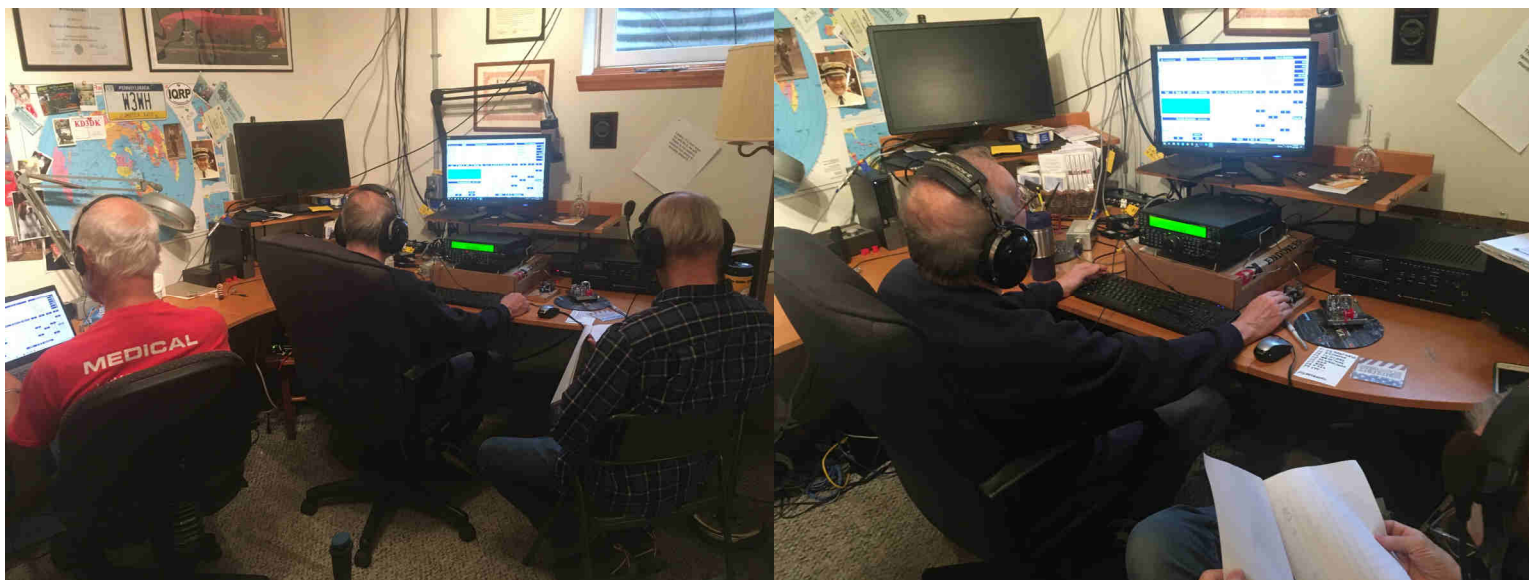
Pa QSO Party 2020: Bonus Station W8XK SSB

Photos Courtesy of and © Copyright 2020 Bill Steffy NY9H



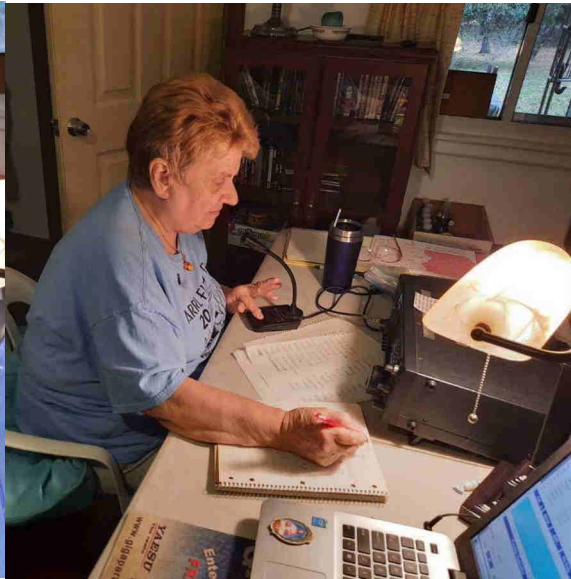
Pa QSO Party 2020: Bonus Station W8XK CW

Photos Courtesy of and © Copyright 2020 Bill Hill W3WH



Pa QSO Party 2020: KB3GMN & N3SBF

Photos Courtesy of and © Copyright 2020 Carol Dank KB3GMN



It's ALWAYS The Last Place You Look!

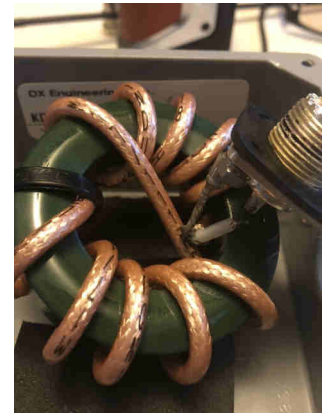
Curtis Turner KB3CMT

Upper St. Clair, PA, October 10th, 2020 – So I decided to go rogue and put an antenna up for PA QSO party. I put my temporary mast up with my flag atop it since they told me they do not regulate flag poles but that aside...

I put my fan dipole up that has always been a good preformer so once the mast was up I figured I was in the home stretch, but checking SWR before connecting and the plot was horrid. I scrambled and went through everything — to the point of pulling the fan apart and testing 80m only and it was still horrid.

So, I finally opened my balun and low and behold:

The center was never soldered in the pl259. It must have sat perfectly for some time and finally jostled out. RE-soldered and put everything back together and plot is better than it has ever been!



Profound Wisdom

Jim Sanford WB4GCS

Eighty Four, PA, October 18th, 2020 -- I share the attached, from a recent ad.

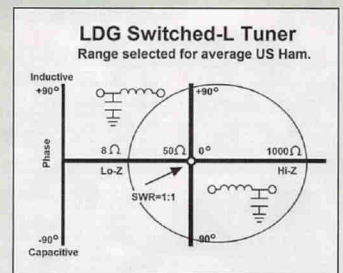
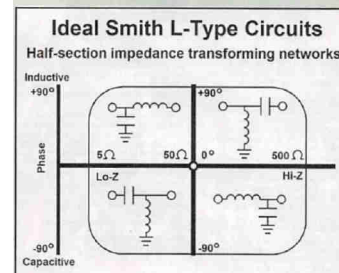
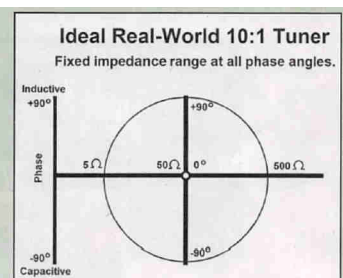
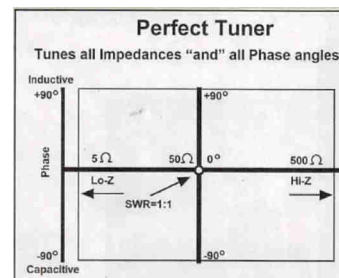
The diagram on the lower left is profound in concisely describing what configurations of an L-network can match what loads. This is not new; I have several books with this info in it, but have never seen it so concisely and profoundly illustrated.

The only thing I've ever see that approaches this is Jack Layton's (W9UK, now SK) description of what a T-network can do -- an impedance transformation with nearly infinite phase changing opportunities at a given impedance transformation.

If you want to get into this, I highly recommend the free program SimSmith and its manual. I have an ARRL book on matching network design that is great, but SimSmith lets you play, and the manual provides some very useful suggestions.

Editor's Note: The chart (below right) and text (below) are from a recent LDG Ad, titled "Engineers of LDG Mini-Notebook: Tuning Range"

We hope they don't mind a little free publicity!



Any way you look at an LDG tuner, it functions as a variable impedance transformer. No matter where you place feedline, it's just like a balun, unun or any other matching transformer device. Way back in 1944, Phillip H. S. Smith (Chart fame) wrote about the eight ways to configure an L-type matching circuit for transmitters using one inductor and one capacitor. Smith wrote in *Electronics for Engineers*: One of the simplest and most effective impedance transforming networks for RF applications is the half-section L-type circuit. Those circuits, with the aid of microprocessors and control, have been whittled down over the years to the standard LDG "Switched-L Network".

The tuning range of the typical LDG tuner is about 15 to 1 to favor high impedance (Hi-Z) loads such as dipoles, verticals, etc and about 8 to 1 for less popular low impedance loads (Lo-Z) like loops, folded dipoles, etc. Choosing the correct range are critical, as going too far beyond a 10:1 range will cause excess losses to accumulate in the tune decades of feedback from our users, LDG has tailored the range in our models to best fit the needs of today's Ham.



Hams Take To The Air To Celebrate The Birth of Commercial Broadcast Radio

Bob Mente NU3Q

Carnegie, PA, October 21st, 2020 – November 2nd, 2020 marks the centennial of radio station **KDKA** going on the air for the first time. Their first broadcast, considered by many to be the birth of commercial broadcast radio, was to report the election results of the Harding-Cox presidential race. KDKA has been on the air continuously ever since. To celebrate this historic milestone, Pittsburgh area amateur radio operators, also known as hams, will take to the airwaves with a series of special event stations. Their goal is to contact as many other ham radio operators across the United States and around the world. They will be celebrating the centennial of KDKA for the entire month of November.

KDKA originally began operations in 1916 as an amateur radio station, call sign **8XK**, operated by Dr. Frank Conrad, Assistant Chief Engineer of Westinghouse Electric and Manufacturing Company. During World War I, amateur radio operations were ordered to be suspended because of national security concerns. After the war, the operators reorganized the station as a commercial AM radio station. The first transmissions of KDKA were from a makeshift studio on a roof of the Westinghouse K Building in East Pittsburgh.

Ham radio clubs participating in the centennial special event include the **North Hills Amateur Radio Club** in Pittsburgh, which is planning to operate from II-VI Incorporated located in Saxonburg, Pennsylvania, the former KDKA transmitter site from 1931 to 1939. One of the original tower piers still stands on the property to this day.

Another operating location is being planned at the Westinghouse Lodge in Forest Hills, located about ten miles east in suburban Pittsburgh, which was the former KDKA transmitter site from 1923 to 1930. Other Pittsburgh area ham radio clubs planning operations include the **Panther Amateur Radio Club** in addition to a joint operation planned between the **Steel City Amateur Radio Club** and the **WIRELESS ASSOCIATION OF SOUTH HILLS**. Outside of Pittsburgh, other ham radio clubs planning operations are **The Skyview Radio Society** in New Kensington, Pennsylvania, which will operate from their clubhouse, in addition to the **Butler County Amateur Radio Public Service Group** in Butler, Pennsylvania, and the **Washington Amateur Communications Radio Club** in Washington, Pennsylvania. Individual radio amateurs will also be operating from their home stations. In addition, there is a small group of ham radio operators planning portable field operations from South Park in suburban Pittsburgh.

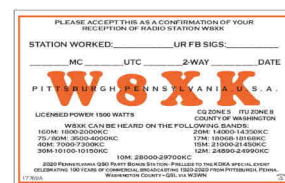
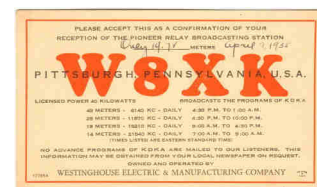
"More than one hundred years ago, many experimenters started delving into a new technology known as wireless, or radio," said Bob Bastone WC3O, Radio Officer for the Skyview Radio Society in New Kensington, Pennsylvania. Bastone explained that many of those early pioneers were radio amateurs. "One hundred plus years later, many amateur radio operators are still contributing to wireless technology while also serving their communities and enhancing international goodwill. Congratulations to KDKA Radio, also known in the early years as amateur radio stations 8XK, 8ZZ, and W8XK

Bastone said that the special event stations will exchange post cards, called QSL cards, with hams who confirm radio contacts with them. A commemorative QSL card has been produced with artwork designed by the graphic arts department at KDKA Radio. "We amateur radio operators look forward to contacting thousands of other hams around the world to celebrate this huge milestone in the commercial broadcasting industry," said Bastone.

The **KDKA amateur radio special event stations**, operating with call signs **K3A**, **K3D**, **K3K**, and **W8XK** will be set up at several locations in Pennsylvania during November, inviting the public to come visit while observing the required social distancing protocols. "The special event stations will also help demonstrate ham radio to our communities while our volunteers practice operating skills and station readiness," said Robert Mente NU3Q, Emergency Coordinator for the Allegheny County Amateur Radio Emergency Service (ARES). He and his fellow volunteers log many hours each year providing public service and practicing their emergency communications capability. The group provides communication services for The Pittsburgh Marathon, Race for the Cure, the Pittsburgh Vintage Grand Prix, the Great Race, and the American Diabetes Tour de Cure in addition to providing communication support for the American Red Cross and the Pittsburgh National Weather Service office.

For more information about the KDKA centennial and a schedule for the ham radio special event stations including locations, operating frequencies, and how to obtain a commemorative certificate, visit www.kdka100.org. Information is also available in the Special Events Station section both on the ARRL website and in QST Magazine.

We wish to thank II-VI (pronounced two-six) for the use of their corporate facilities in Saxonburg, PA, on the very site where KDKA used to broadcast from for most of the 1930s. II-VI is a global leader in engineered materials and optoelectronic components. For nearly 50 years, they have manufactured innovative products for applications in the industrial, communications, aerospace & defense, life sciences, semiconductor capital equipment, automotive, and consumer markets. Learn more at ii-vi.com.



How to Help Operate the KDKA Centennial Special Event Stations— K3K, K3D, K3K & W8XK

All Southwestern Pennsylvania Amateur Radio Operators are welcome to help operate one of the KDKA Centennial Special Event Stations (K3A, K3D, K3K and W8XK) during the month of November 2020.

You don't need to travel to one of the historic sites that operations will take place from at various times; you can operate from your home.

It's actually very simple.

- First, you do need to join the KDKA 100 groups.io list. This site is being used for communications between the operators, scheduling, operating tips and aids, and all sorts of other information. How do you join? Send an email to KDKA100+subscribe@groups.io
- Second, after you've joined, go to <https://groups.io/g/KDKA100>. You will be prompted for an email address and password, but if you don't have a password for groups.io yet, you can request a temporary link to access the group site.
- Third, once you've logged in, go to the calendar at <https://groups.io/calendar>.
- Now, you'll see a lot of listings on each of the days for each call. So see what's available for each call on the day, time, and mode that you'd like to operate. You may find one call reserved, but another available. Anyway, once you've found a call and slot available, put in your reservation (they're all first-come, first served), and you're ready to go!

Continued
on Page 16

Quick & Simple Bandpass Filter Test

Larry Comden K3VX

Pittsburgh, PA, October 18th, 2020 – During one of our club's Field Days one or more bandpass filters were damaged by either transmitting at full power on the wrong band for the filter or connecting the filter to a severely mis-matched antenna.

The transmitter is connected to the filter, the filter is connected to a tuner which must match the antenna to the 50 ohm filter. **Internal rig tuners will not work properly.**

It's still possible to inadvertently do this thru carelessness. There are elaborate test setups for accurately characterizing bandpass filters. Recently I needed to make sure a filter was not damaged by an error.

There are 4 items required for this test: an antenna analyzer, the filter, a 50 ohm dummy load and two connecting cables.

The analyzer (I used an AA230) is set to scan a wide range of frequencies, from well below to well above the supposed filter pass band. For example, a 15M filter is scanned from 11.225 MHz to 31.225 MHz. Set the analyzer to measure and graph Return Loss over the frequency range. Return loss (RL) is the ratio of the reflected power (the power that does not make it thru the filter) to the input power (the power that is applied to the filter input), in decibels (dB). If one watt is input to the filter and the Return Loss is 20dB, only .01 watt is reflected and 0.99 watt is absorbed by the load. On the other hand, a Return Loss near zero means most of the power did not reach the load and was reflected. The shape of the graph below clearly indicates the bandpass frequency range and the band reject range.

Figure1 (Right top): Return Loss over 16.225 to 26.225 MHz for 15M (21.0 to 21.45MHz band). This shows the desired filter response centered on the band. What about including, say 20 to 10M, in the scan? Will spurious signals in those bands get thru?

Figure 2 (Right center): Return Loss over 11.225 to 31.225 MHz for 15M (21.0 to 21.45MHz band).. The scan now includes the 20 and 10M bands. Spurious signals outside 15M will not get thru.

Next, I substituted a 5 ohm resistor for the load. This presents a 10 to 1 SWR at the filter output. Look what happens:

Figure 3 (Right bottom): Filter Characteristic with a 10:1 SWR. Poor return loss almost everywhere! I also used a 500 ohm load with similar results. This means little power delivered to the load and rejection of all signals.

What about near perfect matches? Actually, my so-called 50 ohm dummy load measures around 35 ohms, which should give a VSWR of 1.4 to 1. To see the relationship of VSWR and Return Loss, refer to the formulas at

<https://www.everythingrf.com/community/vswr-vs-return-loss> or the table below.

RETURN LOSS (dB)	VSWR	RETURN LOSS (dB)	VSWR	RETURN LOSS (dB)	VSWR	RETURN LOSS (dB)	VSWR	RETURN LOSS (dB)	VSWR
46.064	1.01	13.842	1.51	9.485	2.01	7.327	2.51	5.999	3.01
40.086	1.02	13.708	1.52	9.428	2.02	7.294	2.52	5.970	3.02
36.607	1.03	13.577	1.53	9.372	2.03	7.262	2.53	5.956	3.03
34.151	1.04	13.449	1.54	9.317	2.04	7.230	2.54	5.935	3.04
32.256	1.05	13.324	1.55	9.262	2.05	7.198	2.55	5.914	3.05
30.714	1.06	13.201	1.56	9.208	2.06	7.167	2.56	5.893	3.06
29.417	1.07	13.081	1.57	9.155	2.07	7.135	2.57	5.872	3.07
28.299	1.08	12.964	1.58	9.103	2.08	7.105	2.58	5.852	3.08
27.318	1.09	12.849	1.59	9.051	2.09	7.074	2.59	5.832	3.09
26.444	1.10	12.736	1.60	8.999	2.10	7.044	2.60	5.811	3.10
25.658	1.11	12.625	1.61	8.949	2.11	7.014	2.61	5.791	3.11
24.943	1.12	12.518	1.62	8.899	2.12	6.984	2.62	5.771	3.12
24.289	1.13	12.412	1.63	8.849	2.13	6.954	2.63	5.751	3.13
23.686	1.14	12.308	1.64	8.800	2.14	6.925	2.64	5.732	3.14
23.127	1.15	12.207	1.65	8.752	2.15	6.896	2.65	5.712	3.15
22.607	1.16	12.107	1.66	8.705	2.16	6.867	2.66	5.693	3.16
22.120	1.17	12.009	1.67	8.657	2.17	6.839	2.67	5.674	3.17
21.664	1.18	11.913	1.68	8.611	2.18	6.811	2.68	5.654	3.18
21.234	1.19	11.818	1.69	8.565	2.19	6.783	2.69	5.635	3.19
20.828	1.20	11.725	1.70	8.519	2.20	6.755	2.70	5.617	3.20
20.443	1.21	11.634	1.71	8.474	2.21	6.728	2.71	5.598	3.21
20.079	1.22	11.545	1.72	8.430	2.22	6.700	2.72	5.579	3.22
19.732	1.23	11.457	1.73	8.386	2.23	6.673	2.73	5.561	3.23
19.401	1.24	11.370	1.74	8.342	2.24	6.646	2.74	5.542	3.24
19.085	1.25	11.285	1.75	8.299	2.25	6.620	2.75	5.524	3.25
18.783	1.26	11.202	1.76	8.257	2.26	6.594	2.76	5.506	3.26
18.493	1.27	11.120	1.77	8.215	2.27	6.567	2.77	5.488	3.27
18.216	1.28	11.039	1.78	8.173	2.28	6.541	2.78	5.470	3.28
17.949	1.29	10.960	1.79	8.138	2.29	6.516	2.79	5.452	3.29
17.690	1.30	10.881	1.80	8.091	2.30	6.490	2.80	5.435	3.30
17.445	1.31	10.804	1.81	8.051	2.31	6.465	2.81	5.417	3.31
17.207	1.32	10.729	1.82	8.011	2.32	6.440	2.82	5.400	3.32
16.977	1.33	10.654	1.83	7.972	2.33	6.415	2.83	5.383	3.33
16.755	1.34	10.581	1.84	7.933	2.34	6.390	2.84	5.365	3.34
16.540	1.35	10.509	1.85	7.894	2.35	6.366	2.85	5.348	3.35
16.332	1.36	10.437	1.86	7.856	2.36	6.341	2.86	5.331	3.36
16.131	1.37	10.367	1.87	7.818	2.37	6.317	2.87	5.315	3.37
15.936	1.38	10.298	1.88	7.781	2.38	6.293	2.88	5.298	3.38
15.747	1.39	10.230	1.89	7.744	2.39	6.270	2.89	5.281	3.39
15.563	1.40	10.163	1.90	7.707	2.40	6.246	2.90	5.265	3.40
15.385	1.41	10.097	1.91	7.671	2.41	6.223	2.91	5.248	3.41
15.211	1.42	10.032	1.92	7.635	2.42	6.200	2.92	5.232	3.42
15.043	1.43	9.968	1.93	7.599	2.43	6.177	2.93	5.216	3.43
14.879	1.44	9.904	1.94	7.564	2.44	6.154	2.94	5.200	3.44
14.719	1.45	9.842	1.95	7.529	2.45	6.131	2.95	5.184	3.45
14.564	1.46	9.780	1.96	7.494	2.46	6.109	2.96	5.168	3.46
14.412	1.47	9.720	1.97	7.460	2.47	6.086	2.97	5.152	3.47
14.264	1.48	9.660	1.98	7.426	2.48	6.064	2.98	5.137	3.48
14.120	1.49	9.601	1.99	7.393	2.49	6.042	2.99	5.121	3.49
13.979	1.50	9.542	2.00	7.360	2.50	6.021	3.00	5.105	3.50

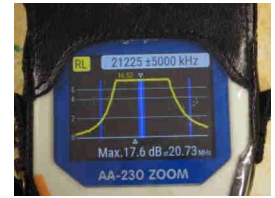


Figure 1

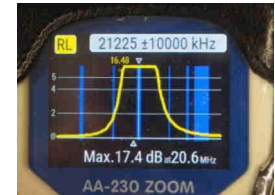


Figure 2



Figure 3

My setup is not geared for accuracy. For that one needs more sophisticated equipment and especially calibration.

New Antenna



Beginning of October, Glen KE7FD told us that his new antenna is up, just needed to have the feedline, tuner connections, and some other minor details finished.

We hope to have more about this in a future issue!



Call To Action

Thomas J. Abernethy W3TOM, Atlantic Division Director, American Radio Relay League

Accokeek, MD, October 18th, 2020 – Greetings fellow ARRL Atlantic Division members,

It is time to protest the imposition of fees for Amateur Radio Licensing.

Many Atlantic Division members have contacted me in the past month about the FCC's proposal for a \$50 "application fee" for license applications in the Amateur Radio Service. The Notice of Proposed Rulemaking (NPRM) was published in the Federal Register (<https://tinyurl.com/vyk8f2yp>). The deadline for comments is **November 16th**, and the Reply comment deadline is **November 30th**.

With this in mind, I am extending the following suggestions you might consider using in writing to the FCC in response to the NPRM. Our thanks to Dave Siddall K3ZJ, ARRL Counsel, for these guidelines. Be sure to carefully review the paragraphs; "Some Suggestions" as the information therein will assist with much of the applicable background.

This subject is critical, the timing is critical. I urge you to contact the FCC now. Address and related information is contained in the article referenced in the Federal Register. Please use your own words to express your objections to the proposed fees.

(Good) Arguments Against FCC Fees for Radio Amateurs:

Amateurs contribute to the public good. In many areas they provide an emergency communications backbone capability at no taxpayer cost.

Consistently we have witnessed storms and natural disasters completely wipe out internet, cellular, and other means of communication. Radio amateurs often fill that void on an unmatched, flexible basis when needed. One recent example is the California wildfires.

Unlike operators in other FCC licensed services, Amateur Radio operators by law domestic and international -- must eschew using their license for any pecuniary interest. Amateurs are prohibited from earning or charging any money for any communications activity. The expenses for their equipment and activities come out of their own pockets, with no opportunity for reimbursement or payment of any kind.

The United States is experiencing a severe lack of RF engineers and expertise at the very time it is needed by the burgeoning wireless industries. Amateur radio is helping to meet the deficit, but much more is needed and youngsters (High School and College-aged) are least able to afford licensing fees. RF knowledge and related digital expertise is needed to maintain U.S. leadership in wireless industries.

At a minimum, young people (below the age of 26) should be exempt from the proposed license fees.

Amateur radio is self-regulating. (a) Amateur examinations are written and administered by radio amateur volunteers. (b) Examination results and paperwork most often are submitted electronically to the FCC. Electronic submission could be required if there would be a cost savings to the Commission. (c) Amateur radio educational classes are conducted by volunteers who by-and-large do not charge fees or tuition for teaching. (d) The amateur service, in cooperation with the FCC's Enforcement Bureau, has a volunteer corps that monitors the amateur airwaves and has programs that try to prevent their misuse before FCC involvement might be needed. The amateurs also observe non-amateur signals both within amateur spectrum and outside it, and report unusual or suspicious signals.

Amateur radio continues to be a source of significant technological innovation that should be encouraged, not discouraged.

Some Suggestions:

We do not recommend arguing that the \$50, fee every 10 years, which amounts to \$5.00 a year, will harm or kill amateur radio, even though as proposed this is for each covered application, which includes upgrade applications. Tech-General-Extra could be \$150. If exams taken at different sessions, a substantial amount. But it is the wrong way to say the whole service turns on \$5/year for each licensee.

The Commission argues that the charges are required by the statute.

The word used in the Congressional Act which directs the FCC to collect fees is "shall", which is mandatory, not optional. But the statute does not set the amount, nor does it prohibit reasonable exceptions evidenced by the Commission's proposal to exempt from fees administrative update applications based on policy grounds.

This is not aimed at amateur radio to kill it. There is a long history and precedent on charging fees for the licensing service involved, just as there is for passports, green cards, drivers'

licenses (issued by states), etc. Better to make pertinent arguments on why the fees would impair the public benefits of the amateur radio service than argue that the whole service might die as a result of a fee that, in fact, is less than the fee many of us paid in the 1960's and 1970's.

For background: this proceeding is being handled by staff unfamiliar with amateur radio. It is being handled in the FCC's Office of Managing Director (OMD), not in the Wireless Telecommunications Bureau where the amateur-specific Part 97 matters are handled. The focus of OMD is accounting budgets and the like for the entire Commission.

The fee proposals cover every FCC license and service across the board and the consideration was directed by Congress. It is recommended that respondents keep "ham jargon" out of the comments, which would not be understood by the intended recipients.

Thank you.



Photo Courtesy IOOK

New Zealand Hams Lose Access to 60 Meters

Paul Gaskell G4MWO / The 5 MHz Newsletter, courtesy of the American Radio Relay League

Newington, CT, October 27th, 2020 – Radio amateurs in New Zealand no longer have access to 60 meters, effective on October 24th. Use of the band by radio amateurs in New Zealand is provisional, allowing hams there to use two frequencies in the band — 5353.0 kHz and 5362.0 kHz — as part of a "trial."

New Zealand Association of Radio Transmitters (NZART), the national amateur radio organization, said the New Zealand Defence Force (NZDF) advised the organization that it was not willing to approve another renewal of the 5 MHz trial allocation. NZART has indicated that it will continue to work with telecoms regulator RSM to see if other ways may be available to provide access to 5 MHz frequencies by New Zealand amateurs.

As in the US, the federal government and military are primary on the 5 MHz band. According to NZART, the decision was not made lightly by NZDF, but access to that part of the HF spectrum is very important to support NZDF's new platforms, tactical radio equipment, and updated HF site equipment in the delivery chain.

"Additionally, access to HF is a key part of their communications plans both in New Zealand and to support our forces overseas," NZART explained. "While this is a disappointing outcome, NZART would like to thank NZDF for allowing us to take part in the trial, and we look forward to working with them in the future on matters of common interest."

ARRL Urges Members to Join in Strongly Opposing FCC's Applications Fees Proposal

American Radio Relay League



Newington, CT, October 27th, 2020 – ARRL will file comments in firm opposition to an FCC proposal to impose a \$50 fee on amateur radio license and application fees. With the November 16th comment deadline fast approaching, ARRL urges members to add their voices to ARRL's by filing opposition comments of their own.

The FCC Notice of Proposed Rulemaking (NPRM) MD Docket 20-270 appeared in the October 15th edition of *The Federal Register* and sets deadlines of November 16th to comment and November 30th to post reply comments, which are comments on comments already filed. ARRL has prepared a [Guide to Filing Comments with the FCC](#) which includes tips for preparing comments and step-by-step filing instructions. File comments on MD Docket 20-270 using the FCC's Electronic Comment Filing System (ECFS).

Under the proposal, amateur radio licensees would pay a \$50 fee for each amateur radio application for new licenses, license renewals, upgrades to existing licenses, and vanity call sign requests. The FCC also has proposed a \$50 fee to obtain a printed copy of a license. Excluded are applications for administrative updates, such as changes of address, and annual regulatory fees. Amateur Service licensees have been exempt from application fees for several years.

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. The 2018 statute excludes the Amateur Service from annual regulatory fees, but not from application fees. The FCC proposal affects all FCC services and does not single out amateur radio.

ARRL is encouraging members to file comments that stress amateur radio's contributions to the country and communities. ARRL's [Guide to Filing Comments](#) includes "talking points" that may be helpful in preparing comments. These stress amateur radio's role in volunteering communication support during disasters and emergencies, and inspiring students to pursue education and careers in engineering, radio technology, and communications.

As the FCC explained in its NPRM, Congress, through the Ray Baum's Act, is compelling regulatory agencies such as the FCC to recover from applicants the costs involved in filing and handling applications.

In its NPRM the FCC encouraged licensees to update their own information online without charge. Many, if not most, Amateur Service applications may be handled via the largely automated Universal License Service (ULS). The Ray Baum's Act does not exempt filing fees in the Amateur Radio Service, and the FCC stopped assessing fees for vanity call signs several years ago.

See also "[FCC Proposes to Reinstate Amateur Radio Service Fees](#)," reported by ARRL in August, and a [summary page](#) of the proceeding.

FCC Orders Amateur Access to 3.5 GHz to "Sunset"

American Radio Relay League

Newington, CT, October 8th, 2020 – Despite vigorous and continuing opposition from ARRL and others, the FCC has ordered the "sunset" of the 3.3 – 3.5-GHz amateur radio secondary spectrum allocation, effective on **November 9th**. The decision allows current amateur activity on the band to continue, "grandfathering" the amateur operations subject to a later decision. The FCC proposed two deadlines for amateur operations to cease on the band. The first would apply to the 3.4 – 3.5 GHz segment, the second to 3.3 – 3.4 GHz. The FCC will establish the dates once it reviews additional comments.

"We adopt our proposal from the Notice of Proposed Rulemaking to remove the amateur allocation from the 3.3 – 3.5 GHz band," the FCC said in its Report and Order (R&O) and Further Notice of Proposed Rulemaking in WT Docket No. 19-348, adopted on September 30th and published October 9th in *The Federal Register*, R&O. "[W]e adopt changes to our rules today that provide for the sunset of the secondary amateur allocation in the band, but allow continued use of the band for amateur operations, pending resolution of the issues raised in the Further Notice."

The September 30 R&O followed a 2019 FCC Notice of Proposed Rulemaking (NPRM) in which the FCC proposed re-allocating 3.45 – 3.55 GHz for "flexible-use service" and auctioning the desirable "mid-band" spectrum (generally defined as between 1 GHz and 6 GHz) to 5G providers. These and other recent spectrum-repurposing actions stem from the MOBILE NOW Act, enacted in 2018, in which Congress directed the Commission to make additional spectrum available to auction for mobile and fixed wireless broadband. The FCC action is consistent with worldwide allocations adopted by the ITU for these frequencies.

In the run-up to the Commission's decision, ARRL met with the FCC's professional staff to explain its concerns and to answer questions. Subsequently, ARRL met with the wireless advisors to the FCC Chairman and two Commissioners. In those meetings, ARRL reiterated that continued secondary status for amateurs will not impair or devalue use of this spectrum by the primary licensees intending to provide 5G or other service. ARRL noted amateur radio's long history of successful coexistence with primary users of the 9-centimeter band, sharing this spectrum with the federal government users and secondary, non-federal occupants.

ARRL pointed out that vital links in amateur television and amateur radio high-speed mesh networks using the band have been especially valuable during such emergency situations as the [wildfires](#) currently raging on the west coast. Deleting the amateur secondary allocation will result in lost opportunities for experimentation and public service with no public interest benefit to make up for that.

ARRL argued that deleting the secondary allocation would waste the scarce spectrum resource, particularly in areas where commercial services often do not construct full facilities due to small populations. The FCC action means that amateur radio will lose access to the 3.5-GHz secondary allocation even where commercial operations do not exist. ARRL told the Commission that it should not intentionally allow this spectrum to be vacant and unused, wasting the public resource, when amateurs can use some portion of it in many geographic areas with no detriment to any other licensee, just as it has in the past. ARRL argues that amateur operations should be permitted until and unless an actual potential for interference exists.

Deletion of the 3.3 – 3.5 GHz secondary amateur allocation **will become effective on November 9th**, but amateur radio operation as of that date may continue while the FCC finalizes rules to license spectrum in the 3.45 – 3.55 GHz band and establishes deadlines for amateur operations to cease. The FCC proposed allowing amateur operation in the 3.3 – 3.4 GHz portion of the band to continue "pending further decisions about the future of this portion of the spectrum," the timing for which is unknown. The Commission proposed to mandate that operations cease in the 3.4 – 3.5 GHz portion when commercial licensing commences for the new 3.45 – 3.55 GHz "5G" band, which is predicted to begin in the first half of 2022.

"[W]e seek comment on whether it is in the public interest to sunset amateur use in the 3.3 – 3.55 GHz band in two separate phases, e.g., first above 3.4 GHz, which is the focus of [the R&O] and later in that portion of the band below 3.4 GHz," the FCC said.

ARRL expressed gratitude to the many members and organizations that joined ARRL in challenging the FCC throughout this nearly year-long proceeding. They included multiple radio clubs, weak signal enthusiasts, moonbounce participants, and the Amateur Radio Emergency Data Network (AREDN), the Amateur Television Network (ATN), AMSAT, and Open Research Institute (ORI).





IARU R2 Releases Revised 2020 Band Plan

George Gorsling VE3YV / International Amateur Radio Union / American Radio Relay League

Newington, CT, October 5th, 2020 – International Amateur Radio Union Region 2 (IARU R2) — the Americas — has released the September 2020 revision of its **Band Plan** and made procedural changes to shorten the time to reflect future adjustments. The Band Plan includes a change approved at the October 2019 General Assembly to add an Amateur Satellite uplink subband, 21.125 to 21.450 MHz, on a non-exclusive basis. This matches similar changes in the Region 1 and Region 3 band plans.

A number of administrative changes have been made to the text, although the Band Plan itself has not been modified. These changes include:

- Modifications to the wording of the Band Plan to ensure that national regulators understand it is a voluntary document, and that countries may depart from the plan based on national requirements.
- Definitions additions: Amateur Radio Direction Finding (ARDF), primary service, secondary service, and several acronyms.
- Inclusion of information detailing the primary and secondary users in each amateur radio allocation band.
- Correction of minor typographical errors.

At its May 2020 meeting, the IARU R2 Executive Committee added text to the Standard Operating Procedures that provides a process for the Band Plan to be updated in a more timely manner. Prior to this change, Band Plan modifications could only be approved at a General Assembly, held once every 3 years. Under the new provision, the Band Planning Committee may circulate proposed changes to member-societies with the approval of the Executive Committee. "Should no more than one objection be received within a 60-day period, the change shall be deemed accepted and reported as such at the next conference," the Band Planning Committee's terms of references state.

The IARU R2 Band Planning Committee has a member from each of the seven areas in Region 2, and one of those members also serves as the committee's chair. The current Committee Chair is **Alphonse Penney** VO1NO/VA1AVR



ARRL Comments in Orbital Debris Mitigation Proceeding

American Radio Relay League

Newington, CT, October 13th, 2020 – In comments to the FCC, ARRL targeted two specific areas of concern regarding a *Further Notice of Proposed Rulemaking (FNPRM)* in IB Docket 18-313 — mitigation of orbital debris in the new space age. In an earlier phase of the proceeding, ARRL filed comments and met with FCC staff to discuss the proposed rules. In comments filed on October 9, ARRL focused on the areas of indemnification and maneuverability/propulsion. Indemnification places the liability for any possible damage from a satellite on an individual or entity. ARRL reiterated its assertion that, as a practical matter, an indemnification requirement "would seriously impair the ability of amateur and university experimenters to launch and operate satellites under US auspices" due to the potential liability and high insurance cost.

ARRL's comments cited a letter from University Small Satellite Researchers, submitted on behalf of 24 named professors last April, contending that the requirement "would effectively preclude a large proportion of academic SmallSat missions because public universities typically cannot legally enter into indemnification arrangements."

ARRL argued that if the FCC does adopt an indemnification requirement, it should allow either the owner or the licensee of an amateur space station to provide indemnification. In the Amateur Satellite Service a licensee can only be an individual. An individual licensee is unlikely to accept liability for a satellite, but a satellite owner might. In its own comments, AMSAT similarly asked for language that would allow satellite owners as well as licensees to indemnify the US for the operation of an amateur radio satellite.

The FCC proposal also would require that all space stations deployed in low-Earth orbits higher than 400 kilometers (about 250 miles) be able to maneuver with the use of some sort of onboard propulsion system. ARRL urged adoption of an exception for "a limited number of amateur and similar experimental satellites" that are below a specified size and mass and either standalone spacecraft or in a constellation of no more than four or five individual satellites. ARRL suggested a size limit of 36 × 24 × 12 centimeters and 12 kilograms in mass.

"This would accommodate the types of small satellites most often used for experimental purposes by radio amateurs," ARRL told the FCC. "Such satellites are small in number [and] have limited to no capacity to implement maneuverability using current technology due to their small size," yet provide valuable platforms for experimentation and student experience.

Alternatively, ARRL asked the FCC to consider increasing the 400-kilometer low-Earth orbit limit, since satellites placed into orbit from the ISS and from ISS service vehicles "often are in higher orbits but share the same characteristics as those that orbit below 400 kilometers." Doing so would help to preserve the educational and experimental benefit of such satellites, ARRL said, provided "such vehicles are shown to pose no risk to the International Space Station and will return to Earth within the specified time limit."

In concluding its remarks, ARRL asked for "reasonable accommodation," given the public benefit of the Amateur Satellite Service, rather than lumping small experimenters and researchers with large corporate entities planning to launch thousands of satellites.

The Logbook of The World (LoTW) Committee worked with *WSJT-X* developer Joe Taylor K1JT to harmonize the designation of FST4 among *WSJT-X*, the ADIF standard, and LoTW. At present, FST4 is only supported in a **recently released beta version** of *WSJT-X*. The committee's action was to avoid the sort of confusion that cropped up among LoTW users logging contacts in FT4 when that protocol was first included in *WSJT-X*.



In the case of FST4, the committee acted proactively to help users avoid difficulties and obtain the maximum number of contact matches. The ADIF standard has been updated to support FST4 as a sub-mode of MFSK, and configuration file CONFIG.xml for LoTW has been updated to version 11.13, accordingly, to support FST4. Users will be offered the update when they run TQSL.

Again, FST4 is only available in *WSJT-X*. An ADIF file emitted by *WSJT-X* should properly identify FST4, so that contacts will upload smoothly into LoTW, provided the CONFIG file has been updated. — American Radio Relay League, with thanks to Greg Widin KØGW

3.5 GHz

continued from
Page 14

ARRL will continue its efforts to preserve secondary amateur radio access to 3.3 – 3.5 GHz. Members are invited to share comments by visiting www.arrl.org/3-GHz-Band.

"We recognize that any loss of our privileges will most directly impact radio amateurs who use the frequencies to operate and innovate," said ARRL President Rick Roderick K5UR. "Such instances only embolden ARRL's role to protect and advocate for the Amateur Radio Service and Amateur Satellite Service. There will be continued threats to our spectrum. So I urge all amateurs, now more than ever, to strengthen our hold by being ceaseless in our public service, experimenting, and discovery throughout the radio spectrum."

W8XK—Forest Hills 1 November 2020

Photos Courtesy of and © Copyright 2020 Bob Grimes W3WUV



Bob NU3Q



Pete W3WC



Chris WA3PBL

Historic Radio Books Available in PDF

Southgate Amateur Radio News

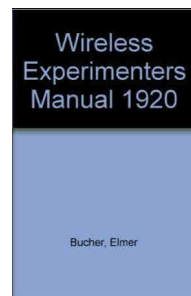
London, England, UK, October 31st, 2020 — Iulian Rosu YO3DAC / VA3IUL has made available some PDFs of radio books from the 1920s, 30s and 40's

Among the titles available are:

- The Wireless Experimenters Manual (1920) - E.Bucher
- Radio, Miracle of the 20th Century (1922) - F.Drinker, J.Lewis
- Principles of Radio (1934) - 2nd Edition - K.Henney
- Automatic Frequency Control Systems (1937) - J.F.Rider
- D/F Handbook for Wireless Operators (1942) - W.E.Crook

See Old Radio Frequency Books https://www.qsl.net/va3iul/Files/Old_Radio_Frequency_Books.htm

The site also has a collection of articles on RF Basics and Theory by Iulian Rosu <https://www.qsl.net/va3iul/>



KDKA Centennial Special Event Stations

Continued from Page 11

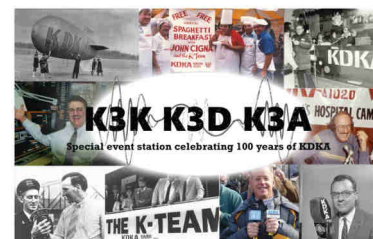
- When the time comes to start operating... go to your shack, turn on the rig, and get started. Not sure what to say? Again, there are guidelines on the group site for that very purpose.

So, what else do you need to know?

Well, please, do keep a log. Whether you work 1 station or 1000, we will need the logs to verify contacts and compile statistics later. What do you need to log? Date (in UTC), time (UTC), frequency, mode, call worked. Signal reports and other info are optional.

Once you're done... at least this time... forward your log to Bob WC3O. Bob is the primary coordinator for the event, and he is doing a lot of hard work, so the easier you can make it for him, the better. Bob & the Skyview Radio Society will be handling the processing of QSL cards, certificates, and so forth. Not sure what format the log should be in? Ask Bob what he prefers. But as long as it's in some electronic form, even if it's just an Excel spreadsheet, or simple written text, we should be able to handle it.

The important thing is... this a chance to have a lot of fun and be part of an historic event. Don't miss out!



Dr. Tim's Hex Beam

Photos courtesy of and © Copyright 2020 Glen Roberts KE7FD



Bob N3RDG and Glen KE7FD were in attendance on October 23rd, as Tim KC3HIK assembled and raised the beautiful hex beam now gracing the air at his QTH. They even helped a little...



Orlando HamCation® & ARRL National Convention Postponed to February 2022

American Radio Relay League

Newington, CT, October 5th, 2020 -- ARRL and the Orlando Amateur Radio Club (OARC) have announced that the ARRL National Convention and Orlando HamCation® — which was to host the convention — have been postponed until February 10th – 13th, 2022. The convention had been set for next February.

"The joint decision came after considering the national public health emergency including the health and safety of all participants, the uncertainty that continues to impact our organizations, and the reluctance to travel to, and attend, large events," said ARRL CEO David Minster NA2AA. "We regret the disruption to the hard work already completed by so many volunteers preparing for the ARRL National Convention and HamCation."

"While postponing was a difficult decision, our top priority is delivering a safe and successful HamCation experience for everyone, including our attendees, dedicated volunteers, exhibitors, and service partners," said HamCation General Chairman Michael Cauley W4MCA.

OARC President John Knott N4JTK, noted that holding the convention in 2022 will mark the 75th anniversary of HamCation — one of the largest annually held gatherings of radio amateurs in the US. The published gate figure for 2020 was 24,200 for all 3 days.

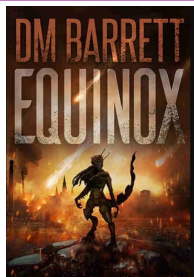
"We want our diamond anniversary show to be an exciting, five-star event," said Knott. "We look forward to seeing you in Orlando in 2022, and hope that you and your loved ones remain safe in the months to come."

A full day of National Convention programming and training sessions was previously scheduled to precede HamCation. That will be rescheduled for Thursday, February 10th, 2022. HamCation will host the rest of the convention on Friday, Saturday, and Sunday, February 11th–13th, 2022 at the Central Florida Fairgrounds and Expo Park in Orlando — an 87-acre lakefront fairgrounds.

Cauley said HamCation may organize some online presentations and programs for what would have been HamCation 2021 next February. A QSO party is also under consideration. The HamCation website will soon post details, including information for anyone seeking refunds and other options for pre-purchased tickets and exhibit space. Follow HamCation on Facebook, Twitter, and Instagram.

Further details and any changes will be shared via these official websites:

- [2022 ARRL National Convention](#)
- [Orlando HamCation](#)



Free eBook Download

Dennis M. Barrett N4ECW

Land O Lakes, FL, October 8th, 2020 – Equinox, DM Barrett's best seller that blends Science Fiction With Amateur Radio and Shortwave, can be downloaded for FREE in eBook format from Amazon on the following dates:

Thursday, November 5th; Thursday, November 12th; Thursday, November 26th; and Thursday, December 10th



3YØI Update

Rebel DX Group / Stan Strzyzewski SP8S, 3YØI Press Officer

Lesko, Podkarpackie, Poland, November 3rd, 2020 – We are still pushing with the missing budget (\$24300) to finalize last payment for the vessel to make 3YØI happen. So far (as an international team) we still can't travel to South Africa due the Covid situation.

Bouvet is not cancelled! All our equipment is ready there, waiting for us.

Time is running like crazy, also Antarctic summer will not wait for us so long... Please keep in mind that we will maybe need to reschedule this trip for the next season.

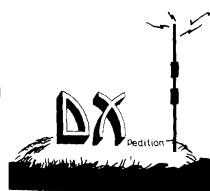
In the meantime Dom 3Z9DX received his Fijian government travel permit to go back to the Pacific Rebel Base as a back up plan. There is three different DXCC's around: 3D2/C Conway, 3D2/R Rotuma, 3D2/Fiji + several IOTAs including some very rare groups.



Unfortunately, cyclone season starts from November to March... so all looks very difficult and hard from logistic point of view.

Let's see what happens soon.

DX News Briefs



VE3LYC is QRV as **TXØT** from Tatakoto Atoll, French Polynesia, through 5 November.

KH9/NL7RR is a contractor working on Wake Island. He is QRV as time permits, but tries to be on 20 or 40 SSB from 0600 – 0800 Z when possible. AL7JX and NL7WK are assisting Tom in arranging for Logbook of the World uploads, and QSL cards. QSL route TBA; WFWL!

IW9FMD is QRV as **Z81S** from South Sudan, as time permits. He has been spotted on 15 & 20 SSB. QSL via IT9YVO

VE3LYC is QRV as **TXØT** from Tatakoto Atoll, French Polynesia, through 5 November, primarily on 17, 20, 30 & 40, CW & SSB. His goal is to make at least 4000 QSOs with at least 2500 unique calls on all 6 continents. More information at <https://tx0t.weebly.com/>. QSL via VE3LYC or ClubLog.

YI9/IU5HWS will be QRV through at least December. He is currently located ~150 km from Baghdad, with the Italian Army Airborne Brigade. More information on his QRZ page. QSL via IU5HWS

HB9HSD plans to be QRV as **8Q7RM** 2 – 29 November, holiday style, HF on SSB & Digi.

Members of the Russian Robinson Club will be QRV as **7Q7RU** 6 – 18 November. Activity will be on 160 – 10, with a focus on 160 & 80, CW, SSB and FT8. More information at <https://dpxpedition.wixsite.com/7q7ru> QSL via R7AL or ClubLog.

J8/UR5BCP will be QRV 21 – 28 November, 40 – 6 on CW, SSB, and FT8/FT4. QSL via KD7WPJ.

K4BAI plans to be QRV (via remote) as **PJ4A** during the CQWW DX CW Contest, 28-29 November. Outside of the contest, look for him as **PJ4/K4BAI**. QSL via K4BAI

OH9A members will be QRV as **OG1XMAS** 29 November – 26 December, all HF bands and modes. QSL via ClubLog and LotW.

DS4NMJ will be QRV as **DT8A** from King George Island, South Shetlands, starting in January 2021, on CW, SSB and FG8. QSL via DS5TOS

GØVJG will be QRV from the Maldives 14 – 29 January. He hopes to be reassigned **8Q7CQ** but is awaiting his license.

According to his QRZ page, F8FUA will be returning to Burkina Faso as **XT2BR** sometime in 2021. Firm dates to be announced.

The **JXØX** DXpedition has been cancelled, due to multiple logistical and permit issues. All PayPal donations will be refunded 100%, according to their announcement.

QSL Routes

4XØAAP/75 via 4X6ZM	IQ9QV via 9A5URI	R125SE via RK3SWB
5Z4VJ via MØURX	LC5C via LA6KOA	R5ØØLWTK via R2PT
9G5FI via DL1RTL	LC8P via LA8PDA	R925RZ via RK3SWB
A6ØAAP/1 via A61BK	LN8W via LA6YEA	SP6ØPRT via SP6PRT
C31CA via EA1PO	LU1ZG via LU4DXU	SI9YL via SM3LIV
D44PM via IZ4DPV	NP4Z via N4AO	SN1ØØJPII via SP3TYJ
DAØSD via DJ5RE	OE65VIE via DE1QSL	SN4ØRY via SP1EG
DKØRPO via DF7IS	OHØT via OH2GEK	SO4ØRY via SP1KRF
DK8K via DL4VAI	OHØZ via WØMM	SQ4ØRY via SP1PMY
DLØD via DL7AHF	OH1Z via OH1LEG	TM72WOW via F1IEH
DL2ØLAGA via DM4EAX	OH6RX via OH6GDX	UT4U via UX5UO
DL35SDR via DF3MC	OL3Z via OK1HMP	V31MA via MØOXO
EJ5GM via MØOXO	OP9T via ON5CT	W5E via K5GCC
HF4ØRY via SP1O	OV7X via DL2JRM	W8XK (PA QSO) via W3WN
K3A via K3MJW	OZ1ØØMILL via OZ1ACB	W8XK (Nov 2020 only) via K3MJW
K3D via K3MJW	PA6SHB via PA7FRN	
K3K via K3MJW	PA6TIEN via PA3CBH	
IQ3ZL via 9A5URI	PA75UN via PA1UN	
IQ8YT via 9A5URI		

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.

GERATOL Net Resumes Operation

Kevin Lynch N1KL

Wheelright, MA, October 10th, 2020 – The **GERATOL NET**, which stands for: GREETINGS EXTRA RADIO AMATEURS TIRED of OPERATING LATELY, has launched their 2020/2021 season.

All properly licensed HAMs are welcome and encouraged to join this challenging Worked All States Net on 3.668MHz starting at 0100Z each and every evening.

No need to be a member, or to hold a GERATOL number, simply check into the net any time. Of course, old timers are also welcome, and we look forward to new and old members joining us on frequency.

For more information, check out the GERATOL Website at: <http://geratol.net>



Yahoo Groups QRT

Yahoo Groups Team

Sunnyvale, CA, October 13th, 2020 – We launched Yahoo Groups 20 years ago to connect people around their shared interests. We helped our users navigate new towns, keep in touch with college friends, learn new skills, and most importantly, build connections they may have lost or never had in the first place. While we could not have been more proud of what we accomplished together, we are reaching out today with heavy hearts to let you know that **we have decided to shut down Yahoo Groups on December 15th, 2020.**

Yahoo Groups has seen a steady decline in usage over the last several years. Over that same period we've witnessed unprecedented levels of engagement across our properties as customers seek out premium, trustworthy content. To that end, we must sometimes make difficult decisions regarding products that no longer fit our long-term strategy as we hone our focus on other areas of the business.

Beginning December 15th, 2020 the Yahoo Groups website will shut down and members will no longer be able to send or receive emails from Yahoo Groups. We've compiled a [comprehensive FAQ here](#) that includes alternative providers and information on how this will impact your group content.



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.**

HAM RADIO INSURANCE ASSOCIATES, INC.

P.O. Box 201

Canonsburg, PA 15317-0201

Toll-Free 1-800-545-8881

Fax: (412) 746-5944

bill.hill@hamradioinsurance.com

"All-Risk" Amateur Radio Equipment Insurance Plan for:

Radio Equipment Computer Equipment
Antennas Rotors & Towers Computer Media & Software
Mechanical Breakdown & Electrical Damage Coverage



Antenna Zoning or PRB-1 Issues?

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

Lazaroff & Suhr, Attorneys at Law

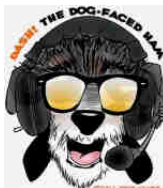
277 West Main Street, Saxonburg, PA 16056

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 November 1st, 2020:

Novice	8,428
Technician	422,500
General	189,884
Advanced	39,478
Extra	156,380
Club	12,622
Total	829,292

All-Time High 10/30/2020 829,392

Last 90 Days:

New Amateurs	9,224
Callsign Changes	2,916
Class Changes	3,262
No Longer Licensed	4,979
All Updates (*)	30,535

(*) Includes renewals, address changes, etc.

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

Latest Region 3 Sequential Calls Issued as of November 1st, 2020 :

Group A	AC3GP
Group B	KF3EU
Group C	(none available / all issued)
Group D	KC3QJR

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, October 19th, 2020 – FCC Headquarters has moved. The new address is 45 L St. NE, Washington, DC 20554. The change is effective immediately. The FCC announced plans to move last spring, but the transition was delayed by the COVID-19 pandemic.

The FCC, like many federal agencies, has its own zip code, so there will be no disruption in mail delivery sent by USPS to the former address. The FCC still prohibits the delivery of hand-carried documents, and all COVID-19 restrictions or instructions regarding access to FCC facilities remain in place at the new location.

"The FCC continues to balance its efforts to be accessible to the public with the need for heightened security and health and safety measures and encourages the use of the Commission's Electronic Comment Filing System (ECFS) to facilitate the filing of applications and other documents when possible," the FCC said in an October 15th **Public Notice**.

Due to the pandemic, the move was accomplished by professional movers without the presence of any employees, all of whom had been working from home. An attempt was made during the summer to let employees back into headquarters for a day to pack up their offices and remove personal belongings, but that plan had to be scrapped after several employees tested positive for COVID-19.

Most FCC staff continue to work from home and are not expected to be physically present in their new offices before next June.

In anticipation of the planned move, the FCC last spring also announced the adoption of a new FCC seal. The redesign is the product of an agency-wide contest that solicited proposals from employees and contractors. The revised design incorporates several elements: communications technologies; four stars on the outer seal border, drawing from the legacy of the predecessor Federal Radio Commission (FRC) seal, retaining the three-wire dipole supported by two towers; 18 stars on the shield, recognizing the current number of bureaus and offices; and the eagle and shield, identifying the FCC as a federal government agency.

Official use of the new seal was to begin following completion of the FCC's move from The Portals to its new location on L Street NE.

The White House has withdrawn the nomination of Republican FCC member Michael O'Rielly for a second term on the Commission. President Donald Trump had nominated O'Rielly for another 5-year term on the Commission last March. No reason was given for withdrawing the O'Rielly nomination, who was initially appointed to the FCC in 2013 by President Barack Obama.

The White House has nominated a senior advisor at the National Telecommunications and Information Administration (NTIA), Nathan Simington, to the FCC in O'Rielly's stead. The FCC has five members. Its chairman is nominated by the President.

Heard On 160

James E. Hocut WT4W

Cedar Bluff, AL, November 1st, 2020 - Having just gotten my 160 meter inverted V back on the air, I decided to do some top-band FT8 for a bit last night.

One CQ call caught my attention, **SPØOK** had a VERY strong signal, especially for my much compromised antenna (the peak of the V is only at about 40 feet). It didn't make any sense to be hearing one station, supposedly from Poland, THAT strong and to not hear a single other European station at all.

I looked up the callsign on QRZ and there's no entry for it. I'm sure it wasn't a one-time bad decode either since I saw several stations answering the CQ.

Being both bored and curious, I did some searching online for 'SPØOK'..... I found multiple references to a player in an online game. Whatcha' think, were a few folks being 'gamed' on FT8 last night?

Editor's Note: Oh, you mean Casper? Friendly guy. He's always QRV about this time of year. Good friends with some other well known calls... RG8U, RG8X, 6L6GT, 5U4GB, GHØST, GØBLN, SP1RIT, SL1M, W6XRL/4, K726XAA, KAØXTT, C3PO, R2D/2...

Unfortunately, he's tough to get a QSL card from. Some consider it on the level of vaporware.

Has Roadway found the tower yet?



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



DXers have a choice!

Get a free two week trial of The Daily DX and The Weekly DX and decide for yourself which one best fits your needs for informing you of all the DX news!



Send an email to bernie@dailydx.com or go to www.dailydx.com

The Daily DX, 3025 Hobbs Road,
Glenwood, MD 21738 Phone: 301-854-5650



Arghh!
What Mightst We Draw For Ye, Matey?

K1NSSDESIGN
CUSTOM QSL ART
HAM GRAPHICS
WEB COMICS
www.dashtoons.com
k1nss@dashtoons.com

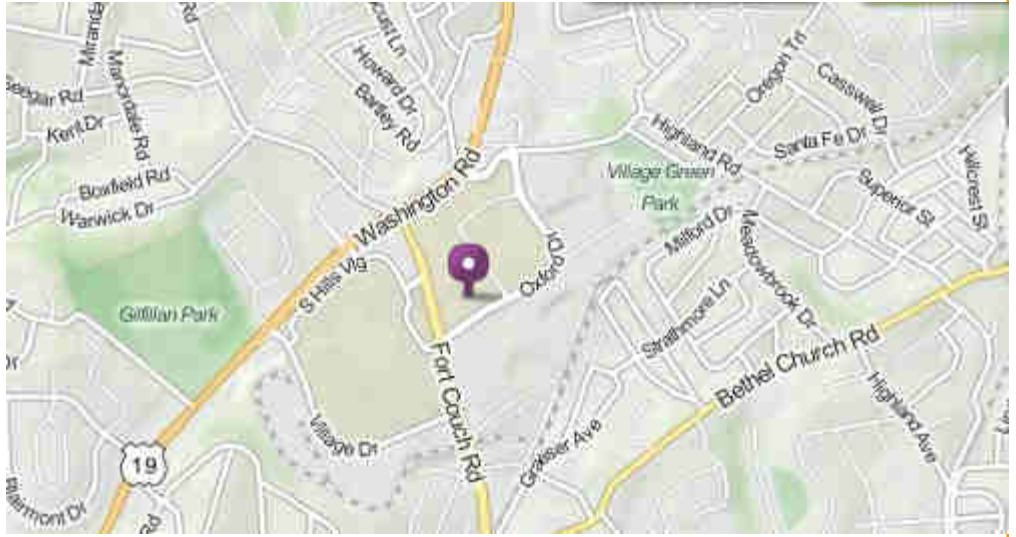
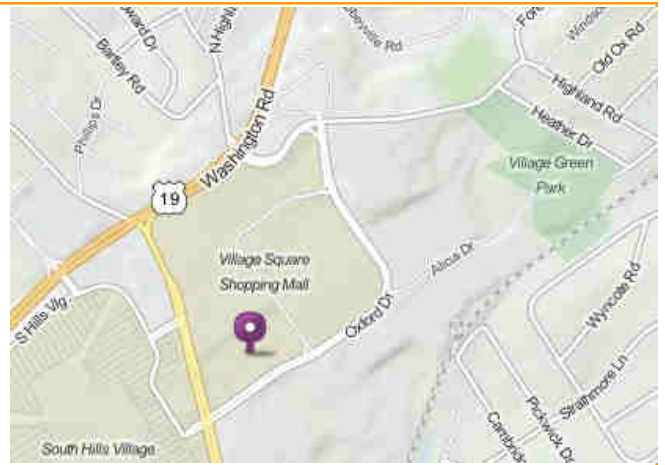


2020 WASH Meeting Location

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



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

