

WASHRAGTM

TM



VOLUME 22 ISSUE 05
MAY 2020

Wireless Association of South Hills

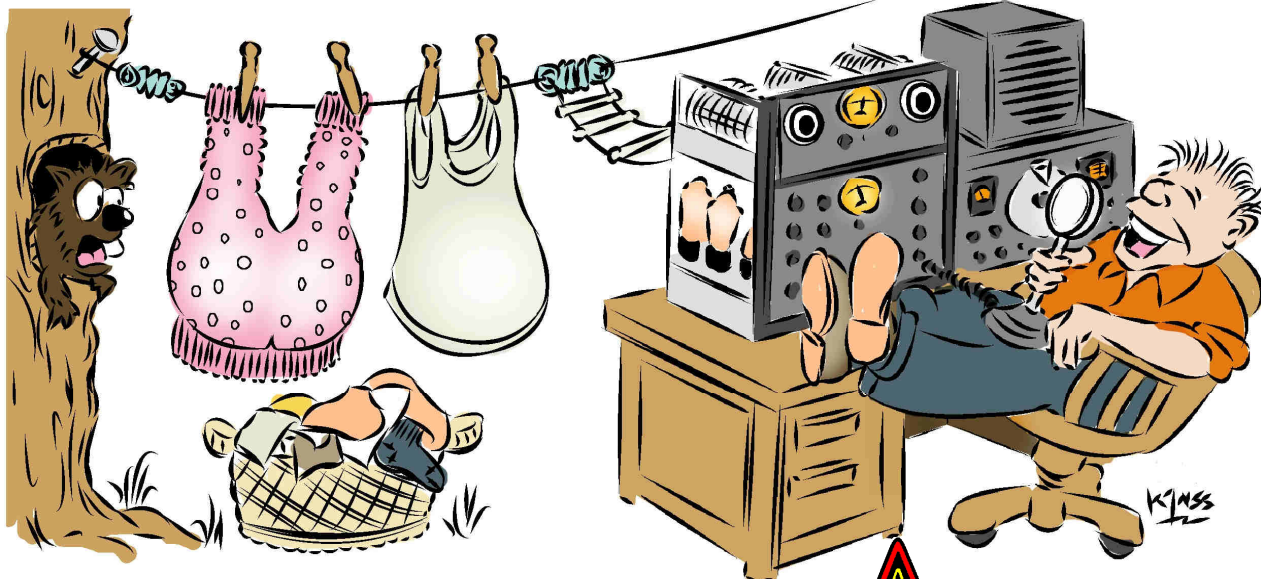


N3SH WA3SH NP2SH/B

www.n3sh.org www.washarc.org



Wireless Association of South Hills



WASHRAG™



VOLUME 22 Issue 05

MAY 2020

Next Monthly Meeting: Thursday, June 4th, 2020

The next scheduled meeting of the WIRELESS ASSOCIATION OF SOUTH HILLS, INC. will be on **Thursday, June 4th, 2020**, in the Conference Room at the **St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park, by South Hills Village & Village Square** (map on the back page). The room is available at 6:30 PM. The meeting will be starting at 7:00 PM.

Due to the pandemic situation, the **May 7th** meeting at the conference room has been cancelled & replaced by an on-air meeting on the 146.955 and 443.650 repeaters, also starting at 7 PM.

See you there!

Cover Photo: A blast from the past... Ted W4ZE & Paul NP2JF assembling the beam for NP2SH 2003. See Page 7 Article

Cover Photo by Tippi Comden WA3JPP (SK) courtesy of and © Copyright 2020 Larry Comden K3VX

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, it's members, or it's actions in any way, shape, or form.

As always, special thanks to the owners & operators of both the N3SH/R Repeaters and the N3FB/R Repeater System for permitting the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.** and it's members to use their repeaters for club purposes.

WASH Amateur Radio Club News Briefs

Next WASH VE Test 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, PA 15129. Talk-in on the 146.955 MHz repeater. All examiners are ARRL VEC affiliated.

Pre-registration is required due to space limitations.

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

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

Please bring the following to your test session:

Picture ID or other suitable identification (2 forms of ID required)

Pen / Pencil / Calculator

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

Original CSCE plus a copy of CSCE (if upgrading)

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

Future test dates:

To Be Determined

Tony's Musings

Day 46 of Quarantine and I still have 153 rolls of toilet paper...

I hope everyone is well. If you are working, not too overworked; and if you aren't working that you are able to enjoy your hobby!

If anyone is in need of anything, please reach out!

As this "stay at home" is winding down (I hope) I can't wait to see everyone at the June meeting!

The May meeting will be held "on air" on 146.955/443.65 May 7th @ 7pm. hope to hear you on the meeting net!

Don't forget Field Day is around the corner

Thanks and everyone STAY SAFE and HEALTHY!

— 73, Tony Romano KB3BYA

President, Wireless Association of South Hills, Inc.

N3SH / WA3SH / NP2SH



As we were wrapping up the newsletter, we learned of a news report from Rapid City, SD, reporting that a 66 year old man was rescued from a "ham radio tower".

The report indicated that the man was stuck at about 20 feet above ground, with an arm pinned under a retractable part of the tower. The "jaws of" were used to free the man from the tower.

The report stated that he was wearing "no safety equipment"

Remember: Only Scotty can defy the laws of physics, and only on the fictional USS Enterprise. Please use all safety precautions and the right equipment when working on a tower!

Usually, this section is one of the last parts of the **WASHRag** to complete. Not just for any last minute items that come up, and sometimes they do, but also because it is often the most fun to right.

For the second month in a row... not this month.

No light-hearted look at the previous meeting of the **WASH Breakfast Gang**. No musing on upcoming events. With the "Stay At Home" orders still in place in Southwestern PA, it's not going to happen.

But there is a light at the end of the proverbial tunnel. Two of the six sections of Pennsylvania (Northwestern and North Central PA) are about to move from "red" to "yellow" status, which means amongst other things, life is close enough to what we used to call "normal" that some of the restrictions can be eased or lifted. News media is speculating that Southwestern PA is next, possibly as soon as the middle of this month.

Obviously, we sure hope so.

So... the May meeting will once again be on the N3SH Repeaters, 146.955 & 443.650 MHz. 7 PM until whenever. We are again asking all club members to please check in, if at all possible. (And remember, we've been reminded that financial details should not be discussed on the air, as they are not and should not become public information.) Beyond that, well, we will see.

If the restaurants are allowed to reopen for sit-down service, then the Gang will possibly meet again at the end of May. Maybe. If not, hope for June or July. The next regular in person club meeting? June at the earliest, again, depending on upcoming circumstances.

You'll notice, again, a lot of "CANCELLED" notations on the calendar. It's important to note some of the events that were scheduled, and now are not happening. (We wouldn't want someone travelling to an event that won't take place!) This will continue for the foreseeable future; and will include, when known, the rescheduled dates for those events that are simply postponed.

Which brings up, sad to say the **Breezeshooters Hamfest**. As you probably know by now, the 2020 Hamfest has, unfortunately, joined the list of cancelled events. That means, obviously, that the club picnic we usually hold at Breezeshooters will also be cancelled. Let's hope that Breezeshooters... and Hamvention, and the Two Rivers ARC Hamfest, and all the rest, will be back next year.

At the moment, the next scheduled WPA Hamfest is the Somerset County ARC Hamfest in July. Keep your fingers crossed on this one. Also, note that we haven't seen the 'official' date for the 2020 Skyview RS Hamfest yet, though we're hoping that this will take place on the usual weekend. As soon as more information is available, the next newsletter will reflect it.

We also don't know yet how the current pandemic situation will affect the **2020 WASH Field Day** operation. Again, we're hoping that things will improve enough that we can still hold a 'traditional' Field Day setup in South Park, even if it is scaled back. Plans are continuing to evolve, as the situation changes (and, we hope, improve). Stay tuned.

Nothing new on the **KDKA Centenary** either. Right now is not the time. But we do need to point out that there are ways... just ask the WWV ARC on the upcoming **WWØWWV Special Event** operation this month. (See Page 29)

It may be safe to say that many of the ways in which many of us live our lives will change as a result of the next few weeks. To what extent, we don't know. So figure that nothing is set in stone, and all plans are subject to change.

And, ah, yeah, this newsletter now stands at 32 pages. Guess Ye Editor **got a little carried away**. We could have done a few more pages... really. Already have a few articles for the June issue. Does that mean you don't have to write something, or send in some pictures, or something? Of course not! The goal has always been to include information of interest to WASH members, including news, features, and events – with priority given to information BY WASH members and/or ABOUT WASH members. New rig? New antenna? New achievement? New furry companion in the shack? (No, we are NOT referring to your human Significant Other!) New family member (human kind)? What's going on in your life?

And remember, I can still print plenty of pictures of Little Miss Field Day and Lucy Furr...

Join WASH or Renew your Membership Today! Membership Application on Page 31

Minutes, April 2nd Meeting

Tony Romano KB3BYA, President, **WASH**

Note: Due to the Pandemic Quarantine, the April meeting was held on-air, in an informal format.

Call to Order: 19:00 hours on the 146.955 & 443.650 MHz Repeaters.

Net Control/Presiding Officer: Tony Romano (KB3BYA)

Members Present: 14

Reports:

Net Managers Report:

- Monday / Chuck KC3ELA: Net doing "fantastic", 22 to 27 checkins, lasting an hour long.
- Tuesday / Glen KE7FD: Net going well

Repeater report: Frank N3FB says that they are repeating well, remember the 5 minute timeout.

Field Day:

- Question about Field Day if Quarantine is still in place.
- Two ideas: Status Quo? Operate from Home?
- Will there be enough Field Day activity this year?
- How many 1D stations?
- Larry K3VX thanked Jim WB4GCS for the generator test information.

Question: Should the next meeting be Zoom or (on air) Net? 9 members favored Net, 5 favored Zoom or did not respond

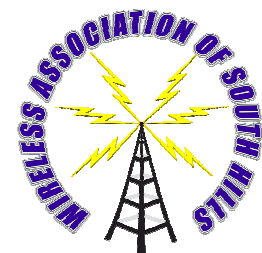
Query from Ron W3WN regarding any news with respect to changes to the 2020 Breezeshooters Hamfest status?

New Business: Jordan KC3NSH asked about a Health and Welfare Net on V/ UHF during the quarantine. Short discussion followed, covering if this would be a daily net, channeled to a particular served agency, or call-in to check if everyone is OK. Consensus that we will wait to see if the need arises.

Adjourned: 19:24 hours

Submitted by: Ron Notarius W3WN
Based on notes from Tony Romano KB3BYA

Check-ins: KB3BYA Tony (NCS)
WB4GCS Jim
KB3GMN Carol
N3SBF Richie
W3WN Ron
K3VX Larry
KB3JHR Gene
KC3ELA Chuck
KE7FD Glen
KB3YCX Gary
KC3NSH Jordan
W3WH Bill
K3HCR Harold



WASH Spotlight: Mess

Another picture from the archives, from the NP2SH trip in 2003.

Ted W4ZE is in the upper right, and based on that hat, that's Larry K3VX on the bottom right. We're not sure whose hand is also in the picture, left.

And yes, that is indeed a Windows 98 startup screen on that laptop!

See Page 7 for more to the story!

Photo by Tippi Comden WA3JPP (SK).

Courtesy of and © Copyright 2003, 2020 Larry Comden K3VX



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

Monthly WASH Breakfast



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

Join us this month at **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
K3VX
K6DWR
KA3VXM
KB3BYA
KB3CMT
KB3DCO
KB3GMN
KB3GMU
KB3JHR

KB3YCX
KC3ELA
KC3GMM
KC3OCT
KC4WTT
N3DFK
N3FB
N3KFD
N3RDG
N3RDV
N3SBF
N7TDX
N9SOJ
NY9H

W3LE
W3WN
WA3PYU
WA3VSS
WA3WXR
WB4GCS

WASH FL
KA3UPY/M
W4ZE
WASH NE
N0PEU
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
N3RNK
N3SKR
N3SRC
N3ZEL
N3XFE
W3ZLK
WA3JPP

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

Through April 30th, 2020

List compiled by

Mark Stabryla N3RDV, Vice President/Treasurer

2020 WASH Upcoming Events Calendar

Club Meetings & Other Significant Events — Subject to Change

May 3 rd	CANCELLED City of Pittsburgh Marathon	CANCELLED
May 7 th	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park 15102
May 9 th	Armed Forces Day Crossband Test	POSTPONED
May 15 th —17 th	CANCELLED Hamvention 2020 	CANCELLED Greene County Fairgrounds & Expo Center, Xenia, OH
May 16 th	Hamvention QSO Party	World Wide Radio Operators Foundation
June 4 th	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park 15102
June 6 th —7 th	CANCELLED Breezeshooter's Hamfest	CANCELLED Big Butler Fairgrounds, 1127 New Castle Road (US 422), Prospect PA 16052
June 13 th —15 th	ARRL June VHF Contest	http://www.arrl.org
June 27 th —28 th	ARRL Field Day	http://www.arrl.org
July 2 nd	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park 15102
July 11 th —12 th	IARU HF World Championship	http://www.arrl.org
July 19 th	Somerset County PA Hamfest	Somerset County Technology Center, 281 Technology Drive, Somerset 15501
July 25 th	Cumberland Valley ARC Hamfest	CVAEMA Show Grounds, 1501 Criders Church Road, Chambersburg PA 17201
July 25 th —26 th	Pittsburgh Vintage Grand Prix	Schenley Park Race Weekend Schenley Park, Pittsburgh
August 6 th	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park 15102
August 8 th	Uniontown ARC Gabfest	UARC Clubhouse, 433 Old Pittsburgh Road, Uniontown PA
September 3 rd	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park 15102
September 13 th	Race for the Cure - New Date	RESCHEDULED
September 13 th	Butler Co. ARA Swapfest	Unionville Fire Department, 102 Mahood Road, Butler PA 16001
October 1 st	WASH Meeting	St. Clair Hospital Outpatient Center, 2000 Oxford Drive, Bethel Park 15102

Isolation Transformers, aka 1:1 Chokes

Glen Roberts KE7FD

One of my more recent over-the-winter antenna projects has been to erect an 80M doublet which strictly speaking is an open-line (ladder type) fed dipole. The name is sometimes mistaken as a double band or fan dipole which is not correct. Thus, the famous G5RV, and its younger cousin, the ZS6BKW are doublet antennas, despite having specific design parameters. It's claimed that the 80M doublet will work all the way up to 10 or 6 meters.

The doublet is unique in that it is not coax fed to the antenna feedpoint, although you can transition to the open-line from coax using a 1:1 balun or line isolator (which is like saying, "six of one or half a dozen of the other"). The beautiful (< a real word!) is that the open line does not radiate whereas coax will [definitely] radiate. In the doublet, the RF is basically "forced" out to the antenna where it radiates. (There's a lot written about doublets which can be googled, so I won't repeat anything here.) This and a few other reasons are why the doublet is closer to 99% efficient whereas coax fed dipoles are closer to 50%-60% (according to my dog Maddie and most real antenna experts). Here's a better explanation from an MIT fellow:

A more common characterization is antenna gain $G(f, T, I)$, which is the ratio of the power actually transmitted in the direction T, I to that which would be radiated if the entire available transmitter power P_T were radiated isotropically. That is:

$$G(f, \theta, \phi) = \frac{\eta_R D(f, \theta, \phi)}{P_T / 4\pi}$$

I have no idea how to solve 99% of the equation, but perhaps you're impressed that I even found such a thing. The reference for it can be found at the end of this article. I'll be transitioning from coax to a remote tuner then to the open-line that'll feed the doublet. I chose to add a line isolator to deal with common mode currents, and here I had a few choices: Ugly balloon, slip-on ferrites and the ferrite core. I've gone with the ferrite cores, type 31 (NOT 43!) from Palomar Engineers as this type offers advantages of higher common mode choking impedances in a package that is smaller (think less wind drag) than the ugly balun and about the same cost or less than slip-on beads. The following photos describe pictorially how a single core, common mode, 1:1 balun, line isolator can be built. There are two shown, built very similarly internally. Both are made using a type 31 core, first wound with 5 turns, then a crossover turn followed by 5 more turns. This method allows the coax to enter one side of the enclosure and exit the other. Other things I've learned:

- + Using 50 Ω coax guarantees you'll see 50 Ω on both the input and the output of the choke.
- + Don't wrap the coax so tight where it deforms the dielectric. I did this on the one choke (open lid) where the outer jacket was removed to allow for more turns on the core. Testing this unit against a 50 Ω dummy load showed that it almost doesn't make it out of 10 meters before the parameters drop off (160-10). For this particular unit, it's not an issue since I use a beam for 10 meter work. The other choke pictured tested from 1.6MHz to 62MHz flat as a pancake, 50 Ω 1:1. This is the unit going onto the 80M doublet system soon.
- + Keep the wires as short as humanly possible. Working in such tight quarters and at my age my sausages are not as nimble as they once were, I did the best as I could. On this one too, I tested as I went and found that lopping off an inch of coax shaved off 50 Ω of slop (100 Ω)! Even though not shown, I managed the same number of turns although they're a bit snug. I'm rating each of these conservatively around 300watts which is less than half of what the manufacturer rates the coax (RG303 & RG8x). All this means that if one of you readers wants to name me in your will to be the recipient of your amplifier, I'd probably be OK putting it on the air. Hint, hint.
- + The enclosures are over the counter CPVC boxes from Lowes/Home Depot (4x4x2).
- + The SO-239 fittings have Teflon dielectric. When buying these, make sure you look for Teflon, any other plastic like Delrin will likely fail or outright melt. If you can afford to, buy Amphenol. And please, only get your fittings from a reputable source. I had some where the center solder tab melted! I threw those out and had to buy new ones. Didn't save money after all.

Explanation of the photos (The antenna shown here is NOT the new doublet but my *existing* ZS6BKW):

1. Internal view of the isolator, note the crossover.
2. The two chokes side by side: Both inputs are coax fed, note the crossover.
3. Side by side: one with coax out, one with terminals out.
4. Shows the inputs, one having a strain relief loop and the weep holes on the bottom for drainage.
5. Ladder line attached to the choke.
6. Weatherproofing goop applied on the top.
7. Weatherproofing goop applied on the bottom.
8. Strapped to the fiberglass mast using UV resistant cable ties.

I have enough wire to make this a 80/40 fan-doublet just to see if that provides an edge. Also, the 80M wire will be a linear-loaded antenna because the distance between the two far points is a little short. This new 80M doublet will appear in a subsequent **WASHRag**.

Additional notes/references: <https://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-661-receivers-antennas-and-signals-spring-2003/readings/ch3new.pdf>

Also, from <https://www.pvcfittingsonline.com/resource-center/is-cpvc-pvc-pipe-uv-resistant/>

Extra Protection Against UV Radiation

CPVC and PVC pipes are affected by UV radiation after extended periods of exposure to sunlight. The radiation penetrates the pipes down to a shallow depth; it is still advisable to protect the pipes. Some pipe manufacturers mix the thermoplastic materials with ultraviolet blocking agents. These pipes can withstand longer exposures out in direct sunlight.

Another way to protect pipes from UV exposure is to conceal them with an opaque covering or paint them with acrylic-based latex paint. UV radiation cannot penetrate the surface of latex paint.



Why Amateur Radio Contesting is a Favorite Activity (Part 1)

Larry Comden K3VX

Pittsburgh, PA, April 22nd, 2020 — Amateur Radio Contesting or RadioSport is obviously a competitive event. Most of us were introduced to it at the local club's Field Day, which is not supposed to be a contest, but in reality is. Maybe we are competing against our past performance, other local clubs or among our own operators and modes. The competition says IMPROVE.

Contesting is different from, but related to, chasing DX for awards. Chasing DX requires persistence, skill, record keeping and improvement of the station. Contesting requires speed, and endurance in addition. All of this comes together when you or your group are the wanted DX station.

My first contest experience was the ARRL November CW Sweepstakes in 1952. It was a 24 hour test on two consecutive weekends. We were two teenage operators using an Elmac AF67 75 watt transmitter and an HQ129X receiver. Logging and duplicate tracking was on paper. One of us would tune the receiver to a CQing station and zero beat the transmitter to the frequency, call, and if successful, send the exchange using a bug. The other would take care of the paperwork. Modern computer logging and CW sending is trivial by comparison. I was hooked and SS was my favorite for many years. Incidentally, Sweepstakes has the longest exchange of any contest:

I tune in this CQing Station: CQ SS W9IOP

Answering Station: W1TWX

The CQer: W1TWX 123 B W9IOP 47 IN — my call, serial number, power, his call, year first licensed, QTH

Answer: 43 A W1TWX 51 CT — serial number, power, year, QTH

Yikes! But really only two things change per QSO — so easy with computer logging.

I've been on a handful of DXpeditions — Montserrat (VP2M) three times, St John (NP2) twice,

Barbados (8P9) once, Bermuda (VP9) once, St Kitts (V4) once. It was always multi-operator with groups

from two to six. All locations have required some of the following Field day type activities — put up antennas, bring rigs, computers, keyers, mics, headphones, power supplies, amplifiers, etc.

Notice, these DXpeditions are all Caribbean and all during our winter — No sub-Antarctic islands for me.

Is it fun? Is it work? Is it drudgery? Is it worth it? Yes, to all. Being a wanted DX multiplier is one of the high points of my ham radio life. Even an ordinary operator (like me) can run up two QSOs per minute.

An extraordinary one (e.g. Carl, K9CS) can hit three per minute. Of course, the station needs a good signal, an excellent receiver and good logging skills.

NP2SH St John, USVI, 2003

Former WASH member Paul Jordan NP2JF and XYL Alice, had a villa on St John, US Virgin Islands, which they rented to us in October 2003, very cheap because that was both hurricane season and yearly maintenance time. The swimming pool was drained, disappointing several of us. However, the beautiful beach at Trunk Bay in the island's National Park was a good substitute.

Bill W3WH and XYL Linda, Ted W4ZE, my high school buddy Randy W6SJ, Paul NØVLR, Steve W3SRL, Larry K3VX and XYL Tippi WA3JPP all piled into the villa. Not everyone was there for the entire time, but space was tight.

WASH had the call sign **NP2SH** for that QTH. We made such a mess on the dining room table, wires running everywhere, 3 or 4 rigs, power supplies, mics, keyers that Alice would not visit our disgrace of her beautiful villa. Part of the mess migrated to the living room. Force 12 provided a yagi, which had to be pop-riveted together and put atop an extension ladder. I shipped my full size 40M quarter wave vertical, disassembled, in a golf case. With all the hardware it weighed 45 pounds — the US Postal Service delivered it! There were several other antennas, too.

OK, it's the first and second weeks of October and the gang wanted casual operating and contests. California QSO Party the first weekend, PA QSO Party the second. I think we surprised participants in both contest. How did we operate on 80/75? We added a wire to the top of the 40 M vertical. On 40, the wire was shorted to the feed point, on 80 the wire was stretched horizontally to make an inverted L.

Not convenient in the dark, but effective.

You don't have to travel far from home to participate in contesting — year round there are state QSO Parties, four VHF contests, short duration sprints (SSB and CW), digital (RTTY and the newer modes), ARRL and CQ sponsored DX.

To be continued.



A few more pictures from the 2003 NP2SH DXpedition:

Ted W4ZE, Bill W3WH & Larry K3VX assembling the vertical (top); the living room; terrace; and the "4 Ops", L-R W3SRL, NØVLR, W4ZE, K3VX (bottom).

Photos by Tippi Comden WA3JPP (SK), courtesy of and ©Copyright 2003, 2020, Larry Comden K3VX

NOAA Updates Solar Cycle 25 Prediction

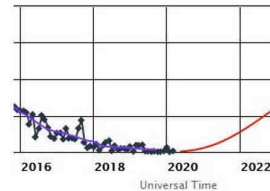
American Radio Relay League, with thanks to [The Daily DX](#)

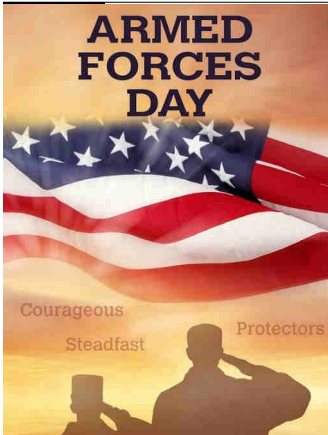
Newington, CT, April 22nd, 2020 — Frank Donovan W3LPL notes that the National Oceanic and Atmospheric Administration (NOAA) Space Weather Prediction Center (SWPC) has published its official updated prediction of Solar Cycle 25 in new, interactive [Solar Cycle Progression graphs](#). The updated prediction is based on the results of NOAA's Solar Cycle 25 Prediction Panel.

"SWPC forecasts a solar maximum between 105 and 125, with the peak occurring between November 2024 and March 2026," Donovan said. "There is broad consensus that solar minimum is ongoing this year — or may have already occurred — and that Cycle 25 will have no major change in the level of solar activity compared to Cycle 24."

As Donovan explained, for many years the SWPC's solar cycle predictions have used the Royal Observatory of Belgium's International Sunspot Number. SWPC's official solar cycle prediction now uses the SWPC sunspot number. The International Sunspot Number is typically about one-third lower than the SWPC sunspot number.

"While this is SWPC's official Cycle 25 prediction, it's important to note there is still divergence among various forecasting methods and members of the space weather forecasting community," Donovan said. "Most forecasts and forecasters agree that the Cycle 25 peak is likely to be within $\pm 20\%$ of Cycle 24 and is likely to occur between 2024 and 2027." [More information](#) on the Springer Nature website.





Annual Armed Forces Day Crossband Test Postponed

Paul English WD8DBY, US Army MARS Program Chief

Courtesy of The American Radio Relay League

Salado, TX, April 8th, 2020 – Due to the ongoing COVID-19 response and mitigation actions, the 2020 Armed Forces Day (AFD) Crossband Test scheduled for Saturday, May 9th, has been postponed.

Because it's uncertain just when stay-at-home orders will be lifted across the US, AFD planners chose to postpone this year's event, because the government stations that typically support this event may not be available. Armed Forces Day Crossband Test planners are considering scheduling a November event in honor of Veteran's Day, depending on COVID-19 mitigation actions.

During the AFD Crossband Test, military stations in various locations transmit on selected military frequencies and announce the specific ham frequencies they are monitoring to work radio amateurs

Western PA Southwest District Conducts Simplex Drill

American Radio Relay League



Newington, CT, April 1st, 2020 – Amateur Radio Emergency Service (ARES) Western Pennsylvania Southwest District, which includes Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Washington, and Westmoreland counties, conducted a district-wide simplex practice drill on March 21st. The exercise lasted about 4 hours, with all participants meeting on their local ARES county repeaters.

Each county Emergency Coordinator served as net control stations, and all stations kept logs, which were to be sent to their local Emergency Coordinator for forwarding to the District Emergency Coordinator.

All stations were asked to stay on their county simplex frequency for at least 15 minutes before going to other county simplex frequencies. After checking in on the repeater, all stations switched to their county-assigned simplex frequencies, to test the capabilities of operators and stations and their simplex operating range. In all, 162 operators participated in the drill.

"We have received so many great comments about the drill that I plan on running it again sometime after the Simulated Emergency Test (SET) drill on April 4th," Western Pennsylvania Southwest District Emergency Coordinator Terry Nemitz KA3UTD said. "I also heard a lot of comments about operators wanting to improve their stations. A good thing."



New Volunteer Monitoring Program is Up and Running

American Radio Relay League

Newington, CT, April 10th, 2020 – After kicking off on January 1, the new **Volunteer Monitor Program** has ramped up to operational status. A "soft rollout" of the program began on February 1, designed to familiarize Volunteer Monitors (VMs) with issues on the bands and to put into practice what to report — and what to ignore, based on their training.

The VMs not only will be looking for operating discrepancies, but for examples of good operating. The VM program has, at least for the moment, put Riley Hollingsworth K4ZDH back in the center of amateur radio enforcement as the Volunteer Monitor Coordinator (VMC). He was brought aboard to get the program up and running, and ARRL will eventually take over the VMC function.

Hollingsworth is using a system called **VMTRAC** — developed by a VM — to measure the work of VMs and determine instances that qualify for good operator or discrepancy notices, referral to the FCC, or follow-up with FCC requests to the VM program.

Hollingsworth reported that during March, the 165 active VMs logged upward of 2,300 hours of monitoring on HF, and nearly 2,000 hours on VHF-UHF and other frequencies.

"I am extremely pleased with the number of hours devoted to monitoring this early in the program," Hollingsworth said. No stone is being left unturned. Two VMs constantly monitor FT8 watering holes and have developed programs that alert them if a licensee is operating outside of privileges accorded to that license class or if a license has expired. "That has occurred in a half dozen cases so far," he said.

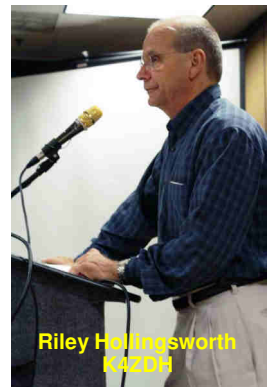
"We have 30 open cases, five of which are good operator cases," Hollingsworth said. "Regarding open cases relating to rule violations, none have yet had to be referred to the FCC." He said he's experimented with letters, telephone calls, or emails to the subjects of discrepancy reports where they could be identified. While he's still waiting for replies to his written correspondence, he has received responses to his calls and emails, and the violations have either stopped or were explained. "They were violations such as expired licenses,

Technicians operating on General frequencies, unauthorized use of a call sign, and deliberate interference," he said.

One case "being groomed for FCC referral," he said, involves long-standing interference to a repeater in the Philadelphia area by someone using an unauthorized call sign. Hollingsworth said he worked with net control operators of nets on 75 and 40 meters that had been suffering serious interference, and so far the solutions are working.

"It is becoming apparent that if informal contact can be made by the VMC with a known offender, the problem can sometimes be stopped," Hollingsworth said. "If this continues to work, it will minimize FCC referral and make those we do refer more worthy of FCC resources and more severe action. We do not want to call upon the FCC unless absolutely necessary, but when we do, the subjects should understand that FCC action will be expedited. I think our own enforcement outreach may resolve all but our very worst cases. At the present time, we have only one in which we do not have a suspicion as to who is causing the problem."

Photos courtesy of the American Radio Relay League



First Trans-Atlantic Contacts Made on 432 MHz 144 MHz Trans-Atlantic Distance Record Extended

John Desmond EI7GL



Cork City, Ireland, April 8th, 2020 – On Tuesday the 7th of April 2020, a remarkable contact was made on the FT8 digital mode on 432 MHz between **D4VHF** on the Cape Verde Islands off the coast of Africa and **FG8OJ** in Guadeloupe in the Caribbean. The distance was 3867 kms.

This was the first 70cms trans-Atlantic contact without using satellites or the moon. The most likely mode of propagation was marine ducting with the signal being trapped close to the ocean.

For the historic UHF contact, FG8OJ was using 100 watts from an ICOM IC-9700 into an 18-element Yagi antenna.

According to the tropo forecast by Pascal F5LEN, the conditions across the Atlantic were really good.

It's interesting to note that the 432 MHz signal from Cape Verde was first heard by 9Y4D in Trinidad on Monday the 6th of April 2020 at 18:48 UTC, but no contact was made. The distance from D4VHF to 9Y4D is even further at 4006 kms.

Update: April 10th, 2020 – The incredible tropo conditions between Cape Verde Islands and the Caribbean continue to amaze with trans-Atlantic contacts on 144 MHz and 432 MHz being made.

On Wednesday the 8th of April 2020, **D4VHF** in the Cape Verde Islands managed to work **PJ2BR** on Curacao on 144 MHz using the FT8 digital mode.

The distance was approximately 4759 kms which is roughly 300 kms further than the previous trans-Atlantic record of 4460 kms between D41CV and NP4BM on Puerto Rico in June of 2019.

The new 2m trans-Atlantic record distance was just 10 kms or so short of the IARU Region-1 144 MHz tropo record of 4769 kms.

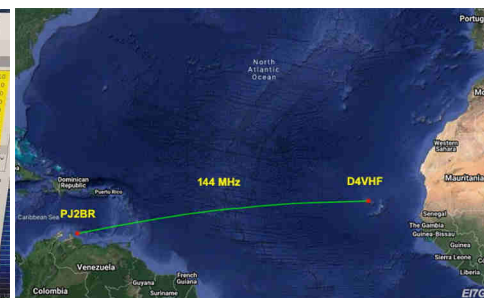
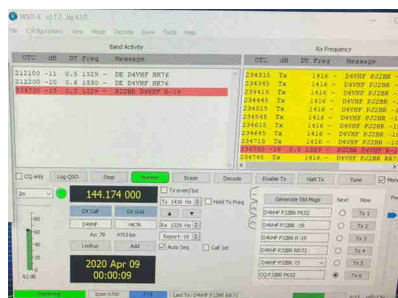
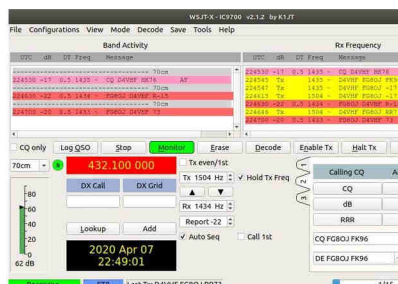
FG8OJ in Guadeloupe reports working D4VHF on SSB on 432 MHz at the end of Thursday the 9th of April after the FT8 signals had increased in strength.

FG4ST on Guadeloupe also works D4VHF with FT8 on 432 MHz, a distance of approximately **3911 kms**. Amazingly, FG4ST was just using a Diamond X-50 vertical and 50 watts for the contact.

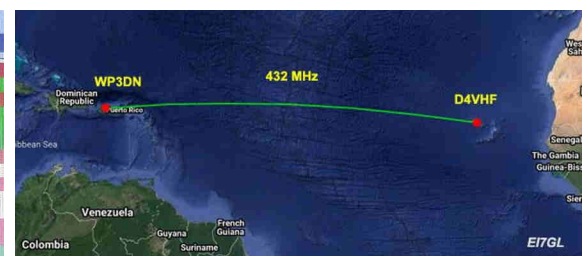
To put these remarkable contacts into some sort of perspective, remember that the distance from Newfoundland to Ireland across the North Atlantic is 3000kms. **9Y4D** in Trinidad finally worked D4VHF via FT8 on 432 MHz. This now extends the trans-Atlantic distance on 70cms to 4009 kms!

Update: April 11th – At 0128 UTC on April 11th, **D4VHF** in Cape Verde and **WP3DN** in Puerto Rico completed a contact with FT8 on 432 MHz. The distance is approximately 4367 kms, which is about 500 kms further than the contact that D4VHF had with FG8OJ, and about 360 kms further than 9Y4D.

More information at <https://ei7gl.blogspot.com/2020/04/first-trans-atlantic-contact-made-on.html> and <https://ei7gl.blogspot.com/2020/04/144-mhz-trans-atlantic-record-extended.html>



UTC	dB	OT	Freq	Message
010400	-16	0.6	1661	WP3DN D4VHF -18
010415	-9	0.6	1626	CQ WP4KJQ FK68
010430	-21	0.6	1657	WP3DN D4VHF -18
010515	-14	0.6	1920	CQ WP4KJQ FK68
010545	-15	0.6	1904	CQ WP4KJQ FK68
010615	-15	0.6	1885	CQ WP4KJQ FK68
010630	-18	0.6	1631	WP3DN D4VHF -18
010645	-12	0.6	1872	HIDDL WP4KJQ -13
010700	-18	0.6	1628	WP3DN D4VHF -18
010715	-14	0.6	1862	HIDDL WP4KJQ RRR
010745	-17	0.3	1956	HIDDL WP4KJQ 73
010800	-22	0.4	1622	WP3DN D4VHF -18
010830	-22	0.7	1620	WP3DN D4VHF RR73
010900	-22	0.5	1624	CQ D4VHF HK76



New Benefits for ARRL Members

American Radio Relay League

Newington, CT, April 16th, 2020 -- ARRL members will now receive digital access to four ARRL magazines beginning with their latest issues. Joining *QST* and *On the Air* magazines on a digital platform will be the bimonthly editions of ***QEX — The Forum for Communications Experimenters*** and ***NCJ — National Contest Journal***. *QEX* includes articles, columns, and other features ranging from construction projects to more advanced technical information in radio theory and practice. *NCJ*, published since 1973, targets radio amateurs active in radiosport. *NCJ* includes scores, technical articles, contributions from top contesters, and advice for beginners and seasoned radiosport enthusiasts alike.

"Feedback from ARRL members and our readership surveys has shown that our magazines are one of the most valued member benefits," said ARRL Publications Manager Steve Ford WB8IMY. "Our investment in digital access provides another channel through which we can deliver content to our members across the expanse of interests and activities in amateur radio. All members can enjoy specialized content and a high-quality reading experience whether at their desk or on the go. Offering this suite of digital magazines is an opportunity for us to give members more of what they want while adding value to ARRL membership."

ARRL's digital magazine editions provide replicas of the printed editions with added functionality, allowing users to fully search issues, enlarge pages, share articles, and more. The free *ARRL Magazines* app also supports downloading complete issues onto your mobile device or tablet for offline reading.

Members who have elected to receive a printed *QST* or *On the Air* as part of their membership benefits will continue to have this service. Members may not substitute a print subscription of *QEX* or *NCJ* as their delivered magazine member benefit. Print subscriptions of *QEX* and *NCJ* will continue to be available at additional cost for those who want to receive them.

All four magazines are easily accessed through any web browser from [members-only links](#). The free *ARRL Magazines* app is available for iOS and Android in the Apple App Store and Google Play. If you're already an ARRL member and previously created an [arrrl.org](#) website account, your username and password will provide you access to the digital editions, whether online or in the app. Members who have not previously registered will need to [create a new account](#). If you've forgotten your password, visit [www.arrrl.org/forgot-password](#), or email [circulation@arrrl.org](#) for assistance.

Previous and prospective members can [join ARRL](#) and take advantage of this and other membership benefits.



ARRL, AMSAT Seek "Relatively Minor Changes" in FCC Orbital Debris Mitigation Proposals

American Radio Relay League

Newington, CT, March 30th, 2020 – Newington, CT, April 16th, 2020 -- On April 8th, ARRL Washington Counsel Dave Siddall K3ZJ and AMSAT-NA Executive Vice President Paul Stoetzer N8HM discussed with senior FCC International Bureau staff by telephone the FCC's draft *Report & Order (R&O)* on mitigation of orbital debris (IB Docket No. 18-313). The amateur representatives told the FCC staff that "two aspects of the draft regulations are of particular concern.... and would seriously hinder amateur radio's future operations in space, if adopted as proposed without the relatively minor changes that we propose."

First, ARRL and AMSAT requested a revision to proposed language that otherwise would allow only private individual licensees to indemnify the US for the operations of an amateur space satellite. ARRL and AMSAT requested that satellite *owners* be added to that provision. The amateur representatives, noting that amateur radio licensees may only be individuals under the amateur rules, stated that "[i]n no other service would an individual be required to personally make a similar indemnification" and that "it would be difficult to impossible to find an individual Amateur Radio licensee willing to bear that risk." to delay by 3 years the proposed effective date of April 23rd, 2022, for a rule that would require satellite operators to certify that space stations "be designed with the maneuvering capabilities sufficient to perform collision avoidance" for spacecraft designed to operate above 400 kilometers in altitude. Citing the long lead times to design and construct Amateur satellites, ARRL and AMSAT suggested that a more reasonable date would be April 23rd, 2025 and noted that, based on recent past years, only an estimated 3-5 amateur satellites likely would be launched during the extra period.

"We do not disagree with the purpose of this requirement," they told the FCC staff, but "the proposed effective date is unreasonable in the case of amateur radio satellites." The new effective date "would allow time for amateur spacecraft designers to adapt to this new requirement," they said.

Citing the value of amateur satellites to the development of the commercial small satellite industry, and student participation in such projects, ARRL and AMSAT said a strong and robust Amateur Satellite Service will help inspire future developments in satellite technology. The requested changes to the draft *R&O* would help ensure that amateur radio continues to have a future in space and contribute to the public interest on an educational, non-pecuniary basis.

The FCC is expected to consider the *R&O* at its April 23rd open meeting.



2020 Breezeshooters Hamfest Cancelled

The Breezeshooters Website

Pittsburgh, PA, April 17th, 2020 — Due to the current health crisis, the 2020 Breezeshooters Hamfest has been cancelled.

As soon as there is more information about the Breezeshooters Hamfest 2021, it will be posted at <https://www.breezeshooters.org/hamfest.htm>



Museum Ships Weekend Cancelled

The Battleship New Jersey Amateur Radio Station

Camden, NJ, April 6th, 2020 – Due to the current unknowns with COVID-19 virus, BNJARS is cancelling the planned annual Museum Ships Weekend Event 2020 which was scheduled to begin June 6th, 2020 at 0001Z and end June 7th, 2020 at 2400Z.

A lot of the ships that participate are already closed due to this health situation and others may get orders to close soon.

As of today, April 6th, 2020, it is unknown when the "lock-down" will be lifted so it is with an abundance of caution and regret that we have decided to cancel MSWE 2020. The health and safety of all our ship participants takes precedence at all times.

We look forward to the event for 2021.



HAM RADIO 2020 in Friedrichshafen, Germany Cancelled

American Radio Relay League

Newington, CT, April 16th, 2020 -- The annual HAM RADIO show in Friedrichshafen, Germany, has decided to cancel its 2020 show due to the COVID-19 pandemic. According to the announcement, HAM RADIO acted in accordance with an April 15th decision by federal and state authorities that no major events are to take place until August 31. HAM RADIO 2020 was set for June 26th – 28th. The event is Europe's major ham radio show, attracting some 15,000 visitors from around the world each summer, including a contingent from ARRL. This year's show would have been the 45th HAM RADIO.

"Our members, domestic and foreign guests, and we ourselves have been hit hard by this decision, which now became necessary to make on short notice," said Deutscher Amateur Radio Club (DARC) President Christian Entsfellner DL3MBG. "Until we get together again in Friedrichshafen, we as amateur radio operators are looking forward to keeping in contact with one another using amateur radio."

On the [HAM RADIO website](#), exhibitors, including DARC, will offer a virtual show.



N3EFN SK

American Radio Relay League



Newington, CT, April 6th, 2020 – Past ARRL Atlantic Division Director Bernard E. "Bernie" Fuller N3EFN of Saegertown, Pennsylvania, died on April 2nd. He was 86.

Fuller moved into the Atlantic Division Director's position in 2000, after the ARRL Board elected then-Atlantic Division Director Kay Craigie, WT3P (now N3KN), as a Vice President. He served as an ARRL Director until 2006.

A US Army veteran, Fuller retired with the rank of Lieutenant Colonel after 22 years. He was a veteran of the Korean and Vietnam wars. Following his retirement, he taught languages at the former Alliance College.

Fuller was a member of the QRP Amateur Radio Club International and the Eastern Pennsylvania QRP Club. He belonged to the Military Officers Association and was a certified National Rifle Association instructor. A member of the Pennsylvania Outdoor Writers Association, Fuller authored e-books on RVing and hunting and was the publisher of the *Outdoors32News* newsletter.





WPA Section News

Joe Shupienis W3BC, ARRL Western Pennsylvania Section Manager

Falls Creek, PA, April 13th, 2020 – Greetings to all Radio Amateurs in the Western Pennsylvania Section!

We hope this finds everyone safe and healthy. There are a good number of interesting and useful amateur radio activities coming, and you can participate from home in all of them.

Net Schedules

Here are some nets to get you started...

- + First we have the **WPA Health & Wellness Net** every weekday morning at 9:00 am on 3983 kHz.
- + At 5:00 pm every evening, check in to the **Western Pennsylvania Phone Traffic Net** on 3983 kHz every day.
- + The **Pennsylvania Fone Net** is back on 75 meters on Monday, Wednesday and Friday evenings at 8:00 pm on 3910 kHz.
- + The **Pennsylvania Statewide DMR** net is held every Tuesday evening at 8:00 pm on DMR talkgroup 3142.
- + Our **WPA Digital Voice Net** takes place every Wednesday evening at 7:30 pm on DMR talkgroup 31422.
- + The **Western Pennsylvania ARES Voice Net** meets every Saturday morning on 3983 kHz at 9:00 am. Everyone is welcome.
- + The **PA HF NBEMS Net** meets Sundays at 0730 for Early, Out-of-State Check-ins, and then starts at 0800 for Pennsylvania Check-ins. Frequency is 3583.0 kHz USB / 1500 Hz Waterfall, the mode for initial call-up and check in is THOR 22 for check-ins and then using MFSK32 or THOR 50x1 for traffic.
- + Also on Sunday mornings, the **PEMA ACS Central Area Net** takes place at 8:30 am on 3993.5 kHz for stations in Bedford, Blair, Centre, Clinton, Franklin, Fulton, Huntingdon, Mifflin and Potter counties. Everyone is welcome.
- + Every Sunday morning at 9:00 am, the **PEMA ACS Western Area Net** meets on 3990.5 kHz for stations in the westernmost 24 counties of our WPA section. Everyone is welcome.

Training Opportunities

If you are starting conversations with the stove and the kitchen sink for companionship, why not put all that spare time to good use and get up to date with the free, online FEMA NIMS ICS courses. There is a lot of useful information in the courses and you can move at your own pace.

Many clubs are holding online meetings with Zoom, Webex and other platforms for free. All the members need to do is go to the specific website using the information from their invitation, and like magic, they're connected. An added bonus is that you can invite a guest speaker from afar to address your club members with an interesting ham radio program.

Operations and Exercises

Our WPA Spring Simulated Emergency Test really emphasized the "simulated" part this year, with travel and social contact being minimized or non-existent. Many thanks to all of you who chose to Press On, and make the most of a bad situation from home. The amount of traffic that was handled, and practicing operating skills to keep them sharp for a real emergency made a very favorable impression on representatives of our partner agencies who were observing us (from afar).

The following is from RI Section Emergency Coordinator Paul Silverzweig W1PJS:

As many of you likely heard via the ARES e-newsletter and perhaps elsewhere, the Red Cross has been working to develop a joint Red Cross / ARES exercise to take place May 30th this year. I have been working with the Red Cross team on this project since its inception in December last year.

I have been asked to recruit ARES SECs to the effort, and to act as liaison between us and the Red Cross team.

With that objective, I want to brief you on where the development effort stands at present.

So far, the plan, is to hold the exercise in two parts: Part A to take place locally, at the chapter or regional level, to have message traffic sent to a regional message consolidation station from simulated shelters, food delivery sites, warehouses, or what have you, via VHF, UHF, or by whatever means the regional circumstances allow, using Red Cross forms, over NBEMS, Packet or WinLink. Part B is to take place later in the day, and involves routing that consolidated traffic to a national consolidation station, using WinLink.

Basic template Standard Operating Procedures will be provided, but the local and regional efforts can be adapted based on capabilities in those areas.

I should note that this exercise is designed to help delineate, define, and establish how the ARES or RACES groups work in support of the served agency, in this case the Red Cross. Objectives and goals will be measurable, and presented to both national organizations to demonstrate capabilities and capacities.

Details will continue to be developed and presented to your SEC. Thanks to all, stay safe and be healthy.

Paul Silverzweig W1PJS, RI Section Emergency Coordinator

Update on Pennsylvania HB-37 (Mobile radio use)

While the senators have figured out a way to have their committee meetings remotely, they are only dealing with COVID-19 issues at the moment. So there's no specific date when they'll look at HB37. I will be keeping an eye on this as time goes on.

The Pennsylvania Senate has delayed action on HB 37 – the legislation that could interfere with Amateur mobile operations. While senate committees, including the Transportation Committee where the bill awaits action to amend it, are meeting remotely, they are only considering COVID-19 related legislation. Your Pennsylvania ARRL Section leadership will keep you informed of progress on this important bill when it occurs. — Jay Silber, M. Ed.

Update: April 17th, 2020 – It is with great sadness we report the passing of Marty Johnson W3YOZ of Annapolis MD on Tuesday, April 14th, 2020. Marty was the owner of the W3SO Contest station atop Wopsononock Mountain near Altoona, and was active in V/UHF contesting, the Pennsylvania QSO Party, ARRL Sweepstakes, DX and other contests from that site. He was first licensed in 1953 and was very active on the air ever since. He graduated from Penn State with a BSEE, and went on to earn a Master's Degree in Anthropology. He was a mentor to many new contesters, and was always a gentleman on the air, even during the heat of pileups.

He was a life member of ARRL, and belonged to the Potomac Valley Radio Club, the Horseshoe Amateur Radio club, the Quad-County Amateur Radio Club and regularly attended many Western Pennsylvania hamfests every year.

Arrangements are incomplete at this time and will be published when known.

Breezeshooters Cancelled

I have been notified that due to the COVID-19 safety precautions, the Breeze Shooters' Hamfest and Western Pennsylvania Section Convention has been CANCELED. The hamfest was scheduled for June 6th -7th at the Big Butler Fairgrounds, but WILL NOT BE HELD THIS YEAR.

That is all for now... Stay safe, stay healthy and stay home! 73 and Press ON!



A Navy CW Op on Guam

Steve Wuelfing K8BZ

Gladwin, MI, April 16th, 2020 – **How It All Got Started:**

June 29th, 1971, 2240 GMT. Forty meter novice band. 7,100 to 7,150 KHz. Summer static crashes, variable strength tones of tube finals being tuned, five to ten word per minute chirpy CW being sent by shaky fingers on straight keys. I set the crystal switch to position number one, 7,140 KHz; the meter switch on the Heathkit DX-100 to IP and adjust the drive to yield 75 watts final amplifier input. The plate switch is flipped up and the mechanical TR switch snaps loudly disconnecting the antenna from the Allied A-2516 receiver and routing it to the transmitter, while simultaneously muting the receiver to protect it from overload. The black bakelite headphones are now silent. With the knob of the straight key grasped between my thumb and middle finger I begin to tap out my five word per minute call; CQ CQ CQ DE WN8KEK WN8KEK WN8KEK, and repeat the series three times before sending K. The plate switch is flipped down and the TR relay opens with a soft click. The headphones come alive with signals and I begin to tune the receiver slowly from the lower edge of the novice band to the upper edge searching for a reply. A reply that could come from any frequency in the novice band since Novice transmit frequencies were required to be crystal controlled. This was my third attempt in as many days to make my first contact and I was beginning to doubt that I had cut my 40 meter dipole to the correct length. What was I doing wrong?

It seemed like a long hard journey at age 16, from short wave listener to licensed ham radio operator. The work began months ago, learning the code, build speed and passing the code test in order to qualify to take the written examination. My code practice oscillator was a transformer and door bell buzzer keyed with a \$1.29 Lafayette Radio and Electronics straight key. A General class ticket holder then had to agree to administer the Novice test. The application had to be completed and mailed to the FCC and the test material was then sent back to the test administrator. The administrator could only oversee the test and could not grade it. The test was then sent back to the FCC for grading and another six to eight weeks elapsed before you received your ticket or your notice of failure.

My confidence was high. I knew a PNP from an NPN transistor, Ohm's law and the power formula, and that a triode tube's three elements were a cathode, grid and plate. All of the novice frequencies were memorized, as well as the logging and crystal control transmitter requirement. But after four weeks the arrival of the mail was met with great anticipation followed by crushing disappointment. Three more weeks elapsed and I found I had received a parcel in the mail. It was not my license. Just a package of QSL card samples from the Little Print Shop in Austin, Texas. I wondered how they knew I would need QSL cards. But no matter. I selected the card I would have printed and filled out the order form. I just needed to know what my call sign would be before I could send in the order.

One more week passed before I stood by the mail box, envelope in hand addressed to me from Gettysburg, PA. I was hoping that the number in my call sign would be a zero because I liked the looks of an "O" with a slash through it. I didn't yet realize Michigan was in the eighth call district and my call sign could have no other number. The envelope was torn open and I read at the top of my license, "CALL SIGN : WN8KEK". No zero! I sent the call sign in my head. di dah dah, dah dit, dah dah dah di dit, dah di dah, dit, dah di dah. Then I repeated the suffix aloud, dah di dah, dit, dah di dah. I could live without the zero. This was a great call sign.

Now I could use the money I had been saving to assemble a station. The brand new Allied receiver was from Radio Shack. The Heathkit transmitter was located from a news paper ad, and I made the purchase for \$50.00 that I had earned mowing lawns and painting a neighbors house. To round out the equipment I found a Heathkit SB-610 monitor scope in a pawn shop in a neighboring town. The antenna was made from wire that was scrounged from an old TV power transformer and was barely twenty feet high, tied between the house and garage chimneys. A 150 watt light bulb in a ceramic fixture served as dummy load and transmitter tuning aid. Everything seemed to be in order but I had spent three days trying in vain to make a contact.

The novice band was packed with signals and each had to be checked to see if it would become my first QSO. Near the top of the band I copied "KEK" and my heart began to race. I grasp my pen tightly and concentrate to copy ever dit through the static and QRM.

"WN8KEK DE WN9FVG K"

My hand is shaking but I manage to respond with just a call sign exchange.

"WN9FVG DE WN8KEK K"

He took charge at that point and told me his name was Ed and he was located near Chicago. My confidence was renewed and we each managed to exchange a name, QTH and signal report through the static and QRM. It was exciting to know my first ham radio contact was beyond my home state. I told Ed that this was my first QSO and he offered his congratulations. Not much else was said but the QSO took several minutes to complete.

With my first contact under my belt I now wondered how far I could communicate on the 40 meter novice band. It was summer break so I was not in school and made day light contacts throughout the east coast and Midwest. Late at night I could hear west coast stations but the summer static was bad and in those days the novice bands were teeming with activity and QRM was a fact of life.

Contacting California from Michigan on the 40 meter novice band became my goal. Late nights were spent searching the band for CQ call from a WN6. Several were heard over a period of weeks and I responded on the closest of my two crystal frequencies, 7.116 or 7.119 MHz, but the California stations did not hear my reply through the QRM or found another reply to their CQ call first.

Then finally on Sunday morning, December 12, 1971, I heard several California stations on the band. It was winter time and the static was considerably less. It was 3:00 a.m. in Michigan and midnight Saturday night in California. I was getting used to copying through the QRM and my code speed had increased to around 10 words per minute. Even though I heard some California stations in QSO I did not hear any calling CQ, so I decided to make my own CQ call. I began to make my call at 0825 GMT (UTC was referred to as Greenwich Mean Time, or GMT, at that time). After my call I tuned the band as usual searching for a response. WN6NOR in LaMesa, California heard my call and responded near the middle of the band. Even though static was light, QRM and QSB hindered our copy. But after some repeats we made a successful contact. Gil gave me an RST 369 and he received a 389 from me. Not many 599 were exchanged by novices who, as a general rule, tend to be more honest in their signal reporting.

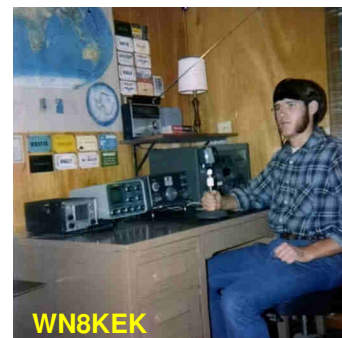
The QSO gave me a feeling of personal satisfaction. I had worked hard, became familiar with the operating procedures and propagation characteristics of the 40 meter novice band, set a goal (modest as it was) and put forth the time and effort to achieve it.

US Navy

After high school I enlisted in the US Navy and after basic training at Great Lakes Naval Training Center in Illinois, was sent to Communications Technician School at the Naval Training Center in Pensacola, Florida. All new recruits attending training there were scheduled to stand watch at various times of the day and night as well as perform guard duty. The club station at the base was WA4ECY. I was advised by a Petty Officer at the ham shack that I would submit a special request to do my watch standing and guard duty at the ham shack. It sounded like a great idea to me so I submitted my request via the chain of command and it was approved after my first regular base perimeter patrol. I found that operating the base ham radio station was much more interesting than looking for saboteurs by walking the interior of the base perimeter fence, alone in the middle of the night, with a flashlight and no radio or pistol.

After completing my training in Florida I was assigned to the US Naval Communications Station on Guam. My novice license had expired and I had applied to take the General Class test. The FCC Examiner came to Guam from Hawaii about once per month to administer examinations. The FCC examiner checked these examinations on the spot and gave you the results. I passed the General test and now I had to wait out the mailing of my General class ticket. This gave me time to assemble another station.

I was the last of 5 children in my family so when I joined the Navy and left the nest, my parents had no more use for the old home stead and were able to scale down. They sold the house and disposed of all the excess belongings in a garage sale. They were able to ship my Allied receive and Heathkit monitor scope to me on Guam but the DX-100 transmitter was impractical to send in the mail. It fetched fifty dollars in the



Continued on Page 13

A Navy CW Op on Guam

continued from Page 12

garage sale and they sent me the cash along with my receiver and monitor scope, as well as some accessory items like my TR-switch and telegraph key.

Antenna material was no problem and the wire was quickly located from a junk TV transformer. In Guam, antenna masts literally grew on trees. A quick trip to the "boonies" produced a 30 foot bamboo pole that served as a mast for an inverted vee antenna for the 20 meter band.

I was anxious to get on the air on 20 meters. The 40 meter novice band was all I had operated on up to that time. I was able to monitor the real DX ham bands at work on the Navy R-390 receivers during slow periods and heard stations from all over the world. But I still needed a transmitter.

One day while checking the bulletin board at work I saw a new posting.

Ham Radio Transmitter
Barker & Williamson 5100-B
180 Watts, Good Condition
\$50.00

The owner had just upgraded his equipment and was getting rid of the old boat anchor. I contacted the owner and found this transmitter to be even bigger and heavier than my old DX-100. It weighed in at eighty eight pounds but was capable of higher power, more than double the 75 watts I ran as a novice, and it wasn't in good condition. It was in great condition! I already had the \$50.00 from my old transmitter and I made the purchase.

My General class ticket arrived soon after I had the station ready to go. My new call was KG6JED. I tuned up on 14.035 MHz. and put out a CQ call in typical Novice fashion. Three CQ's with three call signs repeated three times. To my surprise a station from Japan answered on the first call. My first real DX QSO. I gave my name, QTH and a signal report and turned it back to the JA. He responded with only a signal report and a "PSE QSL VIA BURO." I assumed that the operator didn't know any English and I sure didn't know any Japanese, so I responded with "QSL SURE VIA BURO" and signed off with him.

I was still logging the contact in the log book and immediately I could hear several JA's call me and as well as some Russian stations. I finished the log entry and tried to call one of the Russians but I was unable to copy any further CW on the frequency because of all the stations that began calling me. I tried several times to establish contact with the Russian but the QRM just kept getting worse and they were all calling me! I finally gave up in frustration and moved to another frequency.

I heard a Russian calling CQ on another frequency and I returned his call. We had a simple short QSO and upon signing off, the frequency came alive with what sounded like dozens of stations calling me. Again I tried to make contact with some stations but I was unable to copy anything through the QRM of stations calling me.

My only experience up to this time was as a Novice operator operating on the 40 meter novice band from Michigan. I didn't know what a pile up was or what it sounded like. I was completely inexperienced in how to operate in a pile up, and in what the calling stations were expecting me to do as a desirable DX station. I thought this operating procedure was rather rude and I totally misunderstood what was going on at the time. In time I learned how to deal with the multitude of stations that called every time I got on the air. And I became familiar with some DX operating techniques such as operating split frequency. But in the entire time (nearly 3 years) that I operated from Guam I never really fully appreciated the opportunity I had. When I was discharged from the Navy in 1976 and returned to Michigan I was looking forward to more casual operating and doing some rag chewing and traffic handling and getting away from the frantic pace of DXing. It was a few years later when I became interested in DXing again that I realized that the good DX stations were not nearly as interested in making a QSO with WN8KEK as they were with KG6JED.

To further emphasize the point. I had tried to have a QSO with Guam after returning to Michigan and found it to be rather difficult. I left Guam in 1976 and I did not have a QSO with the island again until October 26, 2003, when I contacted AH2R. Twenty Seven Years!

Communications Duty at NCS

After having a day to settle into the barracks I rode the bus from the chow hall to my duty location in building 200. It was a 4 or 5 mile ride on the base. We drove past a field of huge curtain rhombic antennas before the circular Wullenweber antenna array came in to view. The vertical wires of the array parted just enough to allow a one lane drive inside the array to building 200.

I was escorted past the armed Marine guard at the door as I had not yet been given my building ID card. After being buzzed through the exterior door my escort entered the digital access code to the interior door to enter the building. I then had my picture taken and it was laminated on my green ID badge that would allow me access to the building and my assigned work space.

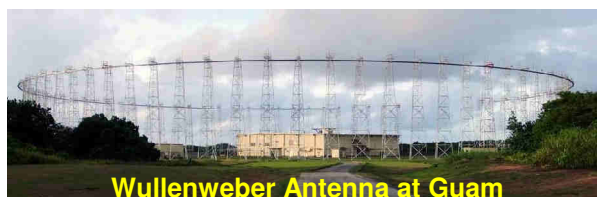
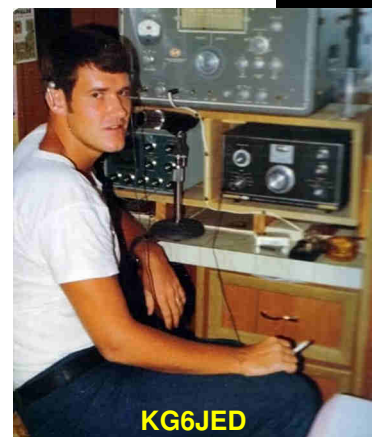
I was led past some open work spaces filled with ASR28 teletype machines, recording equipment and racks of R390 receivers and lots of other equipment I couldn't identify. I was finally introduced to my Chief, in the work space. The operating positions were side by side in two racks of gear. One rack consisted of w R390 receivers and some antenna selecting switches, and the other rack held a shelf with a mill, which was a manual typewriter with only upper case characters. Each mill was fed with six ply fan fold paper, each ply a different color, and each separated with carbon paper. The racks lined each side of the narrow room where the operators sat back to back with a 4 or 5 foot aisle between them. There were about 10 or 12 operators per section (work shift) and the operation went on 24 hours a day, 7 days a week.

I was assigned to a training officer who would show me the ropes. Marines and sailors were a mixed crew in each section watch. My training officer was a Marine 1st Sgt. The sergeant explained to me that each position was numbered, and each position had specific targets or scheduled nets to copy on schedule, and between assignments we were to search for unscheduled targets to copy. Our primary targets were Russian merchant ships en route to or from Haiphong harbor in North Viet Nam.

One operating position was the 'Tip' position. This operator monitored the calling frequency for the Russian merchant fleet. Ships would call the net control who would take the ships call in and have them QSY to another frequency to call another net control to pass their traffic. This Tip position operator would shout "who's open" when a tip was received, and anyone not copying a scheduled net would speak up and the Tip operator would give them the callsign of the ship and net control station and give them the frequencies to listen for them. The operator receiving the tip would typically tune in the NCS station on the R390 in the top of the rack and the ship, or outstation, in the bottom R390. According to the orders for the day, we would copy all encrypted traffic, all dispatches, weather reports or forecasts and sometimes some personal messages that were sent on behalf of the crew members back to their families in Russia. Sometimes personal messages contained useful intelligence that slipped past the Russian communications security officials.

Each message was copied on an individual 8.5 by 11 inch page of the multi part fan fold paper. Upon completion of the net or traffic session the carbon was removed and the colored pages separated and placed in the 'out tray' at each position. Once or twice per hour the linguist would make his rounds and pick up the copies and deliver each color to the appropriate annalist.

High priority targets were always listed in a highly visible location where they could be seen from each operating position. Target ships could be identified by their callsign, the ships name or a format number unique to each ship. We were to copy everything sent by the high priority targets and set a tip to the direction finding (DF) network where an attempt would be made to get a fix, or location of the target. This was the purpose of the large circular Wullenweber antenna array that surrounded the building. Working in conjunction with similar installations around the Pacific each installation would determine a bearing to the target. Computers would calculate the intersection of all the bearings collectively and then determine the targets



A Navy CW Op on Guam continued from Page 13

position and estimate the level of tolerance of the fix. The tighter the group of intersections, the higher the accuracy of the fix.

The next 3 years were spent in similar operations, although the targets changed after the close of the Viet Nam war. The Navy no longer trains heavily in CW intercept operations and most, if not all of the Wullenweber antenna installations around the world have been dismantled and are gone. More information on these installations can be found at: <http://www.engineeringradio.us/blog/2010/10/how-the-cold-war-was-won/>

Western Pacific CW Traffic Net

The only way to contact my Michigan home from Guam was by writing a letter or making a phone call. The turn around time to write a letter and receive a specific response to questions or information in the letter was 2 to 3 weeks at best.

To phone home the process involved

- + Calling the overseas operator and giving the number you wanted to call in addition to giving your own phone number and specifying the billing method; either billing the number you were calling from or billing the party you were calling.
- + Then hang up and wait for the operator to make the connection and then call you back at the number you were calling from and put the call through to you.

You couldn't make the call from a pay phone and if you didn't have a friend who would let you make the call from their home phone your only option was to call collect. Most of the time the connection was made in 15 to 20 minutes or so. But...

Because of the cost of making such a call in 1972 you only make international phone calls for important reasons. Reasons such as a military transfer; travel plans; birth of a child; etc. And when you made the call, you didn't make small talk. You spoke quickly and accurately and parties on both ends of the call knew to have paper and pencil handy to make important notes.

John KG6JAJ lived in an apartment building in Tamuning on Tumon Bay. I noticed the TH6DXX on the roof of the building and wondered about it. One day John returned my CQ call on 20 meter CW and told me where he lived and that he was Net Control Station of the Western Pacific CW Traffic Net (WPTN). I lived within walking distance to his QTH and we met and he convinced me to check in to the net and get familiar with traffic handling.

The net met at 7:00 PM local time on 14.110 CW. After a few check-ins I became familiar with the procedure with a little help from some ARRL publications on traffic handling. There was a good amount of message traffic for the mainland. We had several check-ins from Guam, a regular check in from the Marshall Islands (Kwajalein Atoll, KX6LJ), an occasional KA6 (US personnel in Japan) and our stateside Hawaiian relay Woody KH6IAC. Woody was also a Navy CT-R brancher and he picked up all stateside bound traffic as well as relayed all traffic from stateside to the Pacific island destinations.

I quickly learned that a message originated on Guam and put in the WPTN could be expected to be delivered to my family in Michigan within 12 hours or so. If the delivering station took a reply from the addressee it was possible to receive the response back on Guam via the WPTN the evening after the original message was sent. My first son was born on Guam, and the news of his birth was first delivered to his grandparents in Michigan via NTS message. The official birth printed announcement sent via US mail was received some 10 to 15 days later.

Saigon Falls

Saigon fell on 30 April 1975. It wasn't long before refugees started pouring in to Guam as well as other Pacific islands. The first arrivals were housed in a 'tent city' that was quickly set up on Anderson Air Force Base not far from the Naval Communications Station (NCS) where I was stationed. The tent city was quickly beyond capacity and the old Naval Hospital, a group of WW-II era Quonset huts was then quickly repurposed to house the refugees. The refugees were not free to come and go. The complex was enclosed in a chain link fence and was patrolled by military security while the refugees future status was being determined.

The WPTN suddenly was flooded with traffic from the refugees to officials stateside who they hoped could help speed their processing. The messages were picked up by John KG6JAJ and divided among the operators of the WPTN. Some messages were translated to English by interpreters and some were written in English by the refugee. We would format the message in NTS message form and each evening sent several to Woody KH6IAC, who handled each of them from that point. Many of the messages were addressed to high ranking military officials who the refugees appeared to have worked for in Saigon, based on the content of the messages.

I don't know how many messages I originated. My biggest regret is that after the 3rd party traffic retention period was over I disposed of all the messages. I didn't at the time appreciate the potential historical significance of what was happening on Guam at the time.

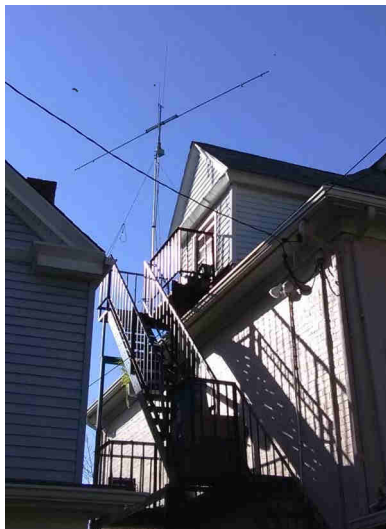
Many months passed and there didn't seem to be any change in the status of the refugees. News reports locally told of their frustration waiting in the poor conditions at the old Naval Hospital complex. Some refugees requested to repatriate and be sent back to Viet Nam. My tour on Guam ended after more than 3 years in March 1976 and I shipped home to be discharged. The remaining refugees were still at the Naval Hospital complex when I left. Two months later Typhoon Pamela hit Guam in May of 1976. The island suffered a direct hit with the eye of the storm passing over the island with sustained winds of over 70 MPH for over 18 hours. I wondered how the refugees managed in the Quonset huts.

HAWAII HONOLULU COUNTY						
KH6IAC						
Radio	Date	QTH	KT	MC	2 way	
KG6JED	1 June 75	0700	599	14.110	CW	

TH 4C 3014 Honolulu & KJ 7ED
40TU 3030H
Pm 40U, direct or 40U to 40U

Licensed: "Woody" (Pm)
47-541 Kilauea Street
Honolulu, Hawaii 96811

Save -
Here's my new CW card
Really miss you on WPTN. Many thanks
for all the help you've done regarding
traffic especially the Refugee cards.
Gus & Jo,
Woody KH6IAC



KC3ELA Updates Shack

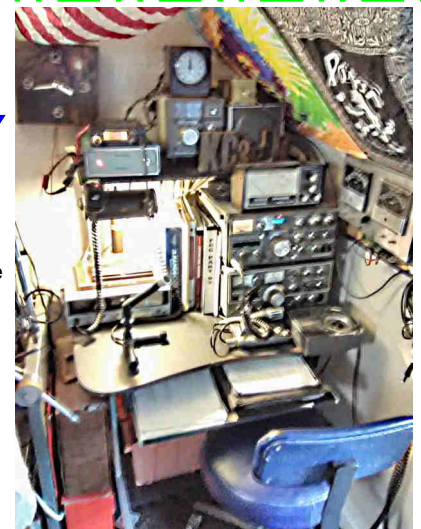
I found some nice weather, and was kind of bored in quarantine, so I upgraded my antenna system.

I installed a new galvanized steel pipe mast, and raised my aluminum 10 Meter dipole a little higher, so it actually can see above the roofline of the houses. I also added a rotator into the system. (Photo Left)

Also, my freshly cleaned up operating station (Photo Right)

73, Chuck Bihun III KC3ELA

(Photos courtesy of and © Copyright 2020 Chuck Bihun III KC3ELA)



Bud Trench AA3B Named WPX Contest Director

CQ Magazine News Release, courtesy of Randy Thompson K5ZD

Hicksville, NY April 13th, 2020 - Joseph W. "Bud" Trench AA3B, of Boyertown, Pennsylvania, has been named Director of the CQ WPX SSB and CW Contests, CQ Editor Rich Moseson W2VU announced today. He succeeds Randy Thompson K5ZD, who has been serving as Interim Director.

Trench has been licensed since 1970 and has more than 1.4 million QSOs in his logbook (which would be very thick if still on paper!). Bud has a passion for contesting, achieving 15 first-place finishes in the CQ World Wide DX CW Contest in the Single Op Low Power category using call sign V26K, including the current world record. He has been among the top-10 USA scorers consistently since 2005 in the CQ WW WPX CW High Power category, and has achieved the top North American score six times in CQ WW WPX RTTY. In addition, he was the Single Op World Winner of the CQ WW WPX Triathlon plaque in 2014, and competed in WRTC 2018.

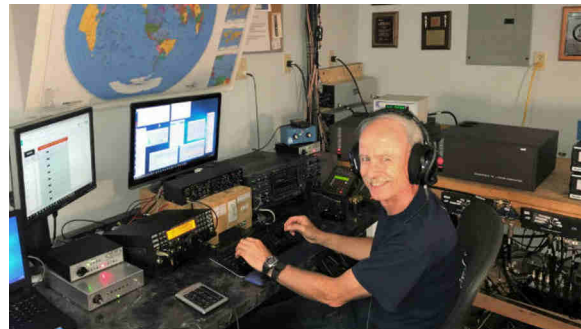
Bud is an officer of the Frankford Radio Club and Pennsylvania QSO Party Association, and a member of the First Class CW Operators' Club, CW Operators' Club, Activity Group CW - DL, CWJF Group, A-1 Operator Club and ARRL.

Professionally, Bud is retired from a career at Lockheed Martin, where his responsibilities included leading large organizations developing complex hardware and software systems for the US Government.

"I am honored to be trusted with leadership responsibilities for the CQ WW WPX SSB and CW contests," said Trench, "and I look forward to serving all stakeholders to ensure the continued robustness of these premiere operating events."

Interim WPX Contest Director Randy Thompson K5ZD, said, "I, and the contest community, appreciate Bud stepping forward to take on the responsibility of managing the CQ WPX Contest. Bud is an extremely prolific contester who is active on all modes. He will bring a fresh perspective to the contest."

Bud is jumping in with both feet, starting immediately to work with Randy on processing the results of last month's WPX SSB weekend, and taking the reins for next month's CW weekend.



Organic Amateur Radio

Eric Nichols KL7AJ

North Pole, AK, April 18th, 2020 – If you're the typical baby-boomer radio amateur, you probably didn't become a ham as a result of some orchestrated PR campaign. Nobody had to tell you that ham radio was cool. It was something that just happened to find you. You probably discovered amateur radio by osmosis, being around, consciously or not, radio enthusiasts and experimenters. You might not have understood it at first, but something instinctively told you it was something you had to find out more about. Amateur radio interest and growth occurred naturally. Hams got into ham radio because they wanted to play with radios...and all the fascinating hardware that made radios work. Like any other organic process, it took on a life of its own; it didn't need any kind of intentional life support.

For the past couple of decades, it seems that amateur radio "recruitment" efforts are becoming more and more desperate. And while they may create temporary ballooning of ham radio numbers, they don't create the passion for radio that keeps hams in the hobby for decades....or a lifetime.

I'm not sure, (at least a lot less sure than I used to be) that it is our job as "elder statesmen" of amateur radio to recruit new hams into the hobby. But if it IS our job, we certainly haven't been doing it right.

Those of us with solder in our veins need to remember...seriously remember...what it was that got US into the hobby. And it almost certainly was not because of some sense of obligation. Does anyone here seriously think any 15 year old kid gives a rat's patoot about EMCOMM? This is not to denigrate EMCOMM in itself, but that is NOT what is going to attract lovers of radio (which is the actual definition of radio amateur). Public service is all well and good, but even THAT should be a natural result of technical and operating competence. I've performed every sort of radio public service there is...both commercial and amateur....but if I didn't love radio in the first place, I never would have gotten involved in any of them.

Using non-radio methods to attract people to radio is putting the cart before the horse. Get people into radio because of the intrinsic wonder of radio is the way to keep folks in the hobby. After "settling in", they will soon enough find their niche...whether it's EMCOMM or contesting, or DXing, or just twiddling wires.

We really need to stop looking at the numbers...at least as an end in themselves. They can be great indicators of the health of ham radio....as long as they aren't "forced."

One thing we can do is keep our eyes and ears peeled for kids who would already likely have a natural bent toward radio...the science geeks, nerds, and makers. But this is really hard to do if you're never around any kids! Part of the problem is a rather unnatural, systemic segregation of the generations. It may not seem like it, but kids are looking for authority figures...as well as something to be passionate about. Amateur radio is one of the few activities that is not subject to the whims of fashion....it is primarily ruled by physical law...something rock solid that "yutes" need in their often chaotic lives. In amateur radio you have absolute control over at least a small aspect of your universe.

If we want long lasting hams in future generations, we can capitalize on these basic needs.

"Radio Pro Radio"

Abandoned Mansion of a Portuguese Radio Amateur

Fernando Casanova EC1AME

I found a cool video with a ham related story.

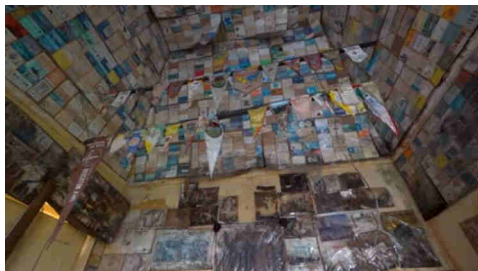
<https://www.youtube.com/watch?v=2EwaZpfADag&feature=youtu.be>

These guys ("Brothers of Decay") have a youtube channel where they visit abandoned homes, and they show us one they've found in northern Portugal with a surprise...

The old shack appears on minute 17.30

Paying attention to the QSL cards on the wall, I could see that the shack was owned by CT1ZB till 1995 aprox. when they had to abandon the house.

Enjoy the cool story.



The Lost House

Pat Bunsold WA6MHZ

El Cajon, CA, April 18th, 2020 – Great! I was called into the Boss's office and told I had a Junket set up. Our company was installing a video system in a large plant in Indianapolis, and they needed an expert to oversee the installation. I would be arriving in mid April, and work on it to the beginning of May. I always loved junkets. Free airplane rides, free meals, free hotel room stays. What a fun time ahead. And, since my hotel would be out of the city always, I had the use of a nice rental car.

My first trip there I scored a nice Lincoln Town Car to drive around in. It was an upgrade from the normal mid-sized car, and it was great fun to drive around in the Luxury Car. But I was called back to San Diego and would need another trip to finish the job a few weeks later. When I arrived back, the boss chewed me out for renting an expensive car. He said I should drive a cheap car, and this time he booked a little Chevy HHR for me to drive.

I arrived at the INDY airport and went to the National Rental car lot. There was a pretty red HHR for me to drive. I would need the large open back area to transport the many antennas and equipment that was shipped to my hotel. The hotel was in Plainfield, not far from the airport, but quite a ride into the city each day. The job went well, and as the week drew to a close, I finished up early and would drive the HHR around the countryside to explore the Indiana landscape. As it got dark, I would head on back to the Hotel in Plainfield and get a good rest that night.

Late that night, I had a wild dream. I was out in the boondocks, and came upon an abandoned farmhouse that had the remains of a Tribander antenna on the roof. Inside the house I explored and found a full Ham station from the 50s, still on the operating table. I forget what happened after that, but the dream kept with me all that night.

My last day was on Friday, and the job was completed well. All the video systems worked great and the customer was well pleased. My task was over early in the morning, and the plane wouldn't leave back for San Diego until around 6PM. That left a good portion of the day to do more exploring.

Should I go North, South, West or East? The plan was to drive until about 2 PM and then head on back towards the airport so I could drop off the HHR and make it to the plane. My bag was in the back seat ready to go. I had found a fairly detailed Indiana state map in the hotel gift shop (Pricey! \$7 for just a map!) and looked where might be interesting to travel to. I didn't want to venture too far away as making it back to the airport was the primary concern. Maybe I will drive out West, towards Terra Haute or Danville, IL. Lets see how it goes.

As I went out to the car, I could see the sky had clouded up and there were storm clouds in that direction. Shouldn't be a problem, I thought. From Plainfield, I took State route 267 up to Avon, and then turned West on US 36. That would take me straight West towards Illinois. The road was a slow 2 lane road but I got to see many of the farms and creeks as I passed through the Indiana plains. Through Danville, IN I went, on out through little towns like Bainbridge, Rockville and eventually across the Illinois state line. It was getting towards 2PM, so it was time to start heading back. But in Rockville, I decided to get a quick lunch. The clouds were getting very dark now, and raindrops started to pellet the HHRs windshield. I found a McDonalds in Rockville and nabbed a Chicken sandwich and a Coke. Time to head out to US 36 again.

As I moved towards Bellmore, the rain really started coming down, and there was also Hail. Wow, what Weather! Coming into Bellmore, I took a wrong turn and tried to find my way back to US 36. But now I was on State 59 south. Fumbling with the map (I had forgotten to bring a GPS!) I tried to see where I could turn off to get back to US 36. A road to the left seemed like a good choice, and I followed it. At least I was heading East, back towards Indianapolis.

I passed through a vague community of houses called Ferndale, and kept heading East. Or was I? I had no compass, but it SEEMED like I was going East. As the rain came down in buckets, the road suddenly turned into a dirt road. OH OH!!! I have got to get back to Pavement!!! The windshield was very muddy now and I could barely see through it. There was a wide spot in the road that might be a good place to turn around, so I spun the HHR around. But the shoulder was soft and I got stuck in the mud. Racing the engine only dug the wheels deeper into the mud. Rats! I checked and there was no cellphone coverage where I was at. NOW WHAT??

Opening the door, the wind was fierce and I got soaked with muddy rainwater. But maybe I could find a house to call for a tow truck. An umbrella would do no good. I walked in the rain down the road until I saw a path going up into the fields. That might lead to a house. The path was well overgrown, not used anytime recently. But in the distance, I could make out a farmhouse ahead. As I arrived at it, I found it was long abandoned. But maybe I could get out of the rain inside. It was in terrible condition. Most of the windows were broken out, the carpet long rotted away and the floor was splintering in places. Walking room to room, it was mostly empty. Everything of value had long been stripped away. Plenty of debris where transients or partyers had used it for no good. All the plumbing had been rifled along with the wiring. The porcelain sink and toilet were all smashed by vandals. But I was out of the rain, and that was good.

The plan was to wait out the storm and then walk back to the road to look for some civilization. But the rain was getting worse, along with considerable hail! Looking in the back room, I saw the remains of a desk. It had holes drilled in it and on the floor were chunks of coax! One piece still had a PL-259 on it! OH! Maybe there was a CB here at one time, or a Ham station! I looked around the floor and found a QSL card from a W9 station, dated 1954. WOW! A Ham had indeed lived here. But all the equipment had long been scavenged. Nothing else was found. I climbed the stairs up to the attic and found it equally bare. Just some old newspapers that dated back to the 1930s. Looking out the window, I could see the HHR in the distance, with it's flashers still going. But also seen was a huge FUNNEL CLOUD, and it was heading this way!

Rushing downstairs, I dashed out the door to see if there was a storm cellar. Yes, here it was, but it was tightly locked up. A massive padlock held the steel doors shut. The wind was picking up and I could barely stand up. Debris was starting to hit me. I better work fast! Looking around, I found an old iron pipe and started beating on the padlock. The Twister was getting close now, headed directly at me. Suddenly, I saw it capture the HHR and pick it up. The flashing warning light disappeared into the debris cloud as it sailed upward. Then I saw it tossed out into the field quite a ways away. Prying and levering, I finally got the pipe under the lock and broke off the bracket. Opening the door, I could see nothing below, but just jumped inside and pulled the door closed. Right about that time, The tornado hit the house. It was the loudest sound I had ever heard, nearly shattering my ears. I could hear the house being eaten away, plenty of crashing and thrashing above me. The heavy metal door started to flip around, so I jumped up and held it down. Above me, I could see some light appearing in the floor as the house splintered. The roar seemed to last forever, but eventually it started to die down and move on. I let go of the door and caught my breath. When it was quieter, It was time to leave.

Pressing on the door, it wouldn't budge. No matter how hard I pushed, it wouldn't lift open. Some piece of the house must have fallen on it, or maybe a tree. It was almost totally dark down here, but I had my mini flashlight on my belt. I turned it on. The storm cellar was very full of debris, but I could just make out a bench over to the side. Waking over, and stumbling over unknown items below me, I saw it was a workbench. The dim flashlight beam revealed a thick layer of dust, but there was a soldering iron and an old Heathkit VTVM. Just to the right was an O-Scope and tube tester. I shined the light up to the shelf above and caught sight of some ARC-5s. WOW! This is where the Ham had his workshop. And it was all untouched.

I pulled out a magazine laying on the shelf, and it was a QST, from 1955. There were several more from the early 50s. There were spiders too, OH that was scary! I walked into several spider webs and freaked out, trying to scrape the webs off my face and hair. YIKES!!!! My batteries were weak on the flashlight, so the beam was very thin. I scanned it across the cellar and could see something tall over in the corner. Brushing away the webs, I walked over to it and could see meters on the front of this refrigerator sized unit. As I got closer, I could see a window just below the meter bank, and a familiar triangular bezel about chest height. It was a Collins, a KW-1!!!! There was more. Here was a National NC-183D, in quite nice condition under the thick dust coating. A Johnson Ranger and Matchbox. The more I looked, the more 50s equipment I found. The Ham who had lived here evidently was quite a hoarder, and he had hidden it all down here in the storm cellar! I was in total awe. Such beautiful equipment, all frozen in time. Here was a Hallicrafters SX-28, and matching PM-11 Speaker. Over there was some early equipment dating back to the 30s. A Philco Cathedral and a few Tombstone broadcast sets. Shelves full of old capacitors, transformers and parts. The newest thing I saw probably dated in the late 50s. This was a time capsule of from the golden era of Ham Radio!

But now my attention was turned to getting out. I had to escape this cellar. Looking for something to pry on the cellar door did no good. But above me, I could still see these bits of light shining through the splinted floor above me. I looked for a pipe to try and knock out



Continued on Page 17

The Lost House continued from Page 16

some wood. But nothing was found, and I couldn't reach the floor from where I stood. Being very distraught now, I began to weep. I thought about my family back in California and that I might never see them again. I might be trapped here in this storm cellar for eternity, with all this beautiful equipment. My teardrops dampened the dust below me.

Then an idea struck me. I pushed the massive KW-1 over to the area beneath the splintered floorboard. Climbing up on top of it, I could now reach the floor. Laying on my back, I kicked at the floor. At first it didn't budge, but I continued to kick. Each kick was very difficult, but I felt some of the floorboards beginning to budge. Debris fell onto my face as I continued to kick. One board came loose! Light was beginning to wane now, and my flashlight battery was fully dead. But above, I could make out some stars above me. The house was GONE!

Into the night I kicked, using every bit of strength I had. Another floorboard came loose, and then another. I could now stick my head up through the hole. Yes, the house was mostly gone, but I could see some of the porch had collapsed on the door which was why I could not open it. Pieces of the carpet held much of the flooring down, so I had to find other boards to kick. Bit by bit, though, the boards came loose and I was getting closer. KICK KICK KICK!!!! I was bathed in sweat and nearing complete exhaustion. It was very humid out now, but the storm had passed and I could see the moon and stars above me. KICK KICK!!!! Another board came loose. I tried pushing my torso up through the slot, but I was still not quite there. Darkness was draped in moonlight. KICK KICK KICK!!!!

The board nails started to pull up out of the rafter. KICK!!!!!! I sat up and pressed on the board with all my might, wiggling and twisting it. The rug held it down, but I could hear the strands starting to rip.

Finally it snapped, but bashed me in the arm. The nail punctured me just above my elbow. I tried again and almost could squeeze through. Sucking in my gut, I pushed up and now my head and arms were above the floor. The sharp wood cut into chest as I pushed. It was cutting into my beer belly. But as I pushed, suddenly I was over the hump and I was FREE! My legs cleared the floor and I stood up. There was no breeze now, and the night humidity was stifling.

I wondered where the HHR was. I scanned the horizon for any sign of the blinking lights, but the only twinkling I saw was from the stars. No lights in any direction. I was so exhausted, I laid down on the rotten carpet and dozed off. Maybe tomorrow would be better.

I awoke the next morning to bright sunshine. I checked for my cellphone, but it must have been lost down in the cellar. I peered down in the area where the boards were and could see the top of the KW-1 below. But now, I must find my way back to civilization! I had a general idea which way was East by the direction the sun was rising from. Indianapolis had to be there, maybe 30 or so miles away. I walked down the path back out to the road and headed East. I was still very weak from the kicking last night, and could barely walk, I stumbled along down the dirt road as the sun rose higher in the sky. It was going to be hot day. I longed for just a bit of that water that came down last night, and looked for any puddles along side the road. No, the mud had turned into DUST quickly as the sun baked out the moisture. Each step was so painful and I left a trail of blood behind me from all the wounds incurred.

Getting dizzy, I vowed to continue on, step after step! But then I lost consciousness and fell to the road below me.....

The next thing I knew, I was in a hospital bed, all hooked up to IVs and with plenty of bandages over me. In awhile a nurse came in.

"WHERE AM I?"

The pretty nurse smiled and handed me some Jello to eat.

"You are at Crawfordsville Memorial Hospital."

She quickly left and returned with a Sheriff deputy.

He looked quite friendly, and began to question me.

"What is your Name?"

I was more alert now.

"I am Patrick Bunsold, from El Cajon, California"

"We didn't find any identification on you. A farmer found you on the road about 7 miles east of Ferndale. What are you doing way out here?"

"I am here on a business trip, but got lost, and my car was zapped by a tornado"

:"Sir, you are very lucky to be alive!"

"What about the Tornado?"

That brought a rather grim look to the officers face.

"It devastated the towns of Clinton Falls and Morton. NOAA claims it was a F5 Twister. You were in that?"

"I was down in a storm cellar of a house. It was blown away!"

The nurse came in and told us it was time for me to rest. I had lost too much blood and need to recover. But they took my information so they could contact my family.

It took about 3 days for me to recover enough to get out of the hospital. I had enough information to recover my stats and they sent me a temporary Drivers license. Another Rental car was issued to me as I wouldn't be getting another plane back to California for a couple of days. Great! I can now search for the house!

Over the next few days, I traced my path around Ferndale, looking for the dirt road I had taken in the rainstorm. Up and down the country roads I traveled, looking for that path off the road to the house. But with the house gone, I saw no trace of it. Everywhere I looked brought no clues as to where the house might be.

Finally it was time to return to the airport and fly back to California. I felt pretty good now as I boarded the plane, and it taxied down the runway. I watched out the window as the big airline took off and flew above the Western Indiana farmlands. Somewhere down there was the treasure of a lifetime.

SOMEWHERE!

A few tears dampened the airplanes' window glass.....



Item 16

Eric Nichols KL7AJ

North Pole, AK, April 18th, 2020 – “Hey, El Joe....whatcha got up your sleeve besides stale Right Guard?” I ventured. I should have known better than to ask. Joel Ballek WL7AI always had these things he called “ideas” rattling around in his cranium, usually to my abject horror.

“Funny you should mention that, El! As a matter of fact, I’ve been working on my next invention for the past three weeks. It’s going to make me rich!”

“Do tell,” I said. “No, on second thought, don’t tell.”

“O ye of little faith. Have any of my inventions ever failed to perform precisely to specifications?”

“How about Scrapscatter, for starters.”

“That was an exception, El! You have to admit it was based on good sound science. It was the bureaucrats that killed that one.”

“O-o-o-kay...; I guess I’ll give you the benefit of the doubt on that one. So, what is this Earth-shattering invention you’ve got percolating?”

“It’s a ham radio idea.”

“Of course. What other kinds of ideas are there?” I sighed with resignation.

“Run over to that Army green cabinet that says “Item 16” on it and grab the oscilloscope off the top of it, will ya?”

I wended my way through the minefield of mysterious science projects in El Joe’s garage toward the cabinet in question. I retrieved a rather large, decrepit-looking oscilloscope of unknown pedigree from the roof of the cabinet and lugged it back to the shell-shocked workbench.

“Thanks, E.”

“You know, you can get a twenty-first century oscilloscope that does a lot more than this thing...and they’re really cheap too! If your invention is so spectacular, you should at least have an oscilloscope that will do it justice. So, where’s your invention?”

“That is the invention, El!”

“What? You invented a decrepit 17th century oscilloscope? What ever will they think of next?”

“You’re a man of limited vision, E. What makes you think this is an oscilloscope?”

“Uh....because you told me to ‘grab that oscilloscope off the top of it, will ya?’ Which I did.”

“I only said that because I knew you were a man of limited vision and that I had to convey my desires using a vocabulary consistent with a person bound by such a restrictive paradigm.”

“Uh....right. That statement is really....um....er....what is the word I’m groping for...ah, yes....stupid!”

“Now now, E. No need to get testy. Open your mind and learn a thing or three from the master.”

“Mea culpa. Consider it opened.”

“Excellent. Now, before proceeding, answer this question. What is the most annoying feature of modern amateur radio equipment?”

It didn’t take me long to answer. “That’s a pretty easy one. Menu driven, multi-purpose controls. I’d give anything for a real radio with real knobs and switches.”

“As would we all!” El Joe exclaimed. “Tis a no-brainer indeed. And...drum roll, please.... what you see before you is the exclusive WL7AI universal de-menuizer. Behold.”

“Uh....what?”

“Yes, you heard me right. A universal de-menuizer Take your most annoying ricebox, jam-packed with annoying, menu driven keypads. Place the de-menuizer next to said annoying ricebox. Allow a moment for some simple handshaking to take place, and lo. You have a “de-virtualized” front panel to work with. Each jumbo sized knob and switch now has one and only one function.”

“Aha,” I said. “But what about the CRT display?”

“That’s just a decoy,” El Joe said. He removed the graticule from the front of the screen to reveal a rotary telephone dial.

“What the.....” I began.

“This is just a bonus. We know how annoying those minuscule cell phone keypads can be, as well. We can de-virtualize those too. Just place your cell phone next to the de-menuizer, give it a few seconds to handshake, and you have a real official genuine telephone dial to work with. No groping in the dark or fat-fingering those gnat-sized keypads. People will love it.”

I stroked my chin for a moment. “Well, I don’t know if people will love it....but I have to admit a lot of hams will. I think you may be on to something here, El Joe. So, when are you going to subject the public at large to this?”

El Joe shrugged. “Well, there’s still a few bugs to work out. I hope to have it ready by Dayton. Would you like to be my beta tester?”

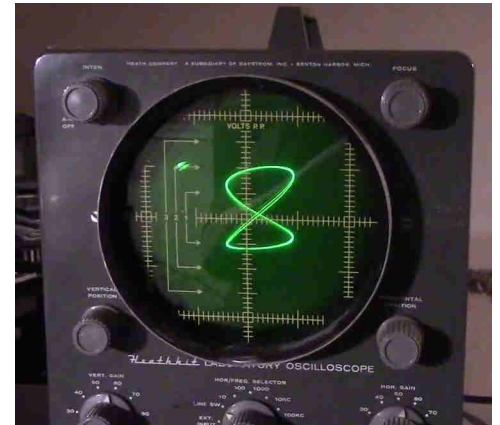
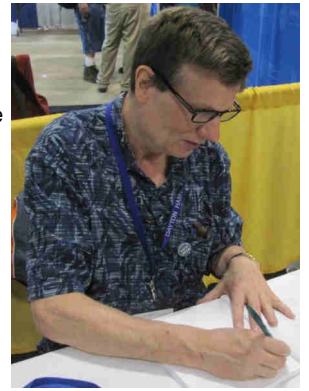
“El Joe, you’ve made me an offer I can’t refuse.”

“Now, aren’t you sorry you doubted me?”

“Well, I’ll let you know in a few weeks.”

I lugged the creation out to my car and plopped it in the back seat, amongst a growing collection of El Joe’s creative triumphs.

I’m either a sucker or a genius. I haven’t figure out which yet.



What's Wrong With This Picture?



In April 2019, Richard Hubbard WF4W applied to CQ Magazine for his Worked All Zones (WAZ) award.

The certificate arrived on April 29th, 2020 — “One Year and Five Days later, it’s here!!” exclaimed Rich.

There’s just ONE little problem. Can you spot it?

Certificate scan courtesy of Richard Hubbard WF4W.

Portable Operation

Stephan Hersey K7OFG

Payson, AZ, April 12th, 2020 – The Christmas holidays were fast approaching and my wife came to me and said, “We are going to my son's house for Christmas and someone else has use of the spare bedroom.” Yikes, that meant having to park our small RV in a very restrictive spot surrounded by two story wire encased stucco houses and under a massive array of power lines. No way to transmit or receive a signal from there due to all the RFI emitted from the power lines and the ‘Faraday’ like cage from the stucco houses around us.

When there in the past we stayed in their extra bedroom, so I was able to drive our van down to a parking lot at the beach to be on the daily radio net I'm a part of without the problems that parking at his house creates. This time the bedroom would be occupied by other relatives so our van would be our bedroom. No getting up early and driving down to my favorite spot and putting up my antenna. My wife is understanding of my radio hobby but not that understanding. So, what to do?

The only answer, portable operation. I've read with interest and have watched some Youtube videos on the subject but it always required having a small lightweight radio, such as the Yeasu FT-891, and a lightweight lithium-ion battery. Both clearly out of the budget and even if Santa knew of my dilemma he wouldn't arrive in time. I'd also need to use a vertical as where I would be operating only offered very tall palm trees. Way out of my reach for getting a wire up.

All in all, if I wanted to join in on the daily net and perform my duties I would have to come up with a portable rig with what I had available.

Knowing I would need a power source and knowing buying a specialty battery like a Lithium-ion was out of the question I opted for a lead-acid battery that would replace the one in our van when it finally gave up. Already being six years old I knew it wouldn't be long, so justified the purchase to the boss that it would be money spent in the future, anyway. Some expenses you just have to explain in those terms. A new lightweight battery and radio wasn't going to pass muster with the boss. I would just have to use the radio I already had for use in the van, my Icom-7200 with it's LDG tuner. Quite heavy for portable use but it would have to do.

How would I cart a lead acid battery and full size transceiver, antenna, coax, radial wires and all the other garb I would need the six blocks to where I could set up?

As I scanned my backyard and shed my eyes alighted on my furniture dolly that was tucked away by the back fence along with my collection of wood waiting to be transformed into another shed. One can never have enough sheds to store the stuff one collects with the knowledge it will certainly be used, someday. As I stared at the dolly my mind's eye started seeing how it would all come together.

Using the dolly made sense because it gave me a way to mount the antenna, carry the battery, the radio, coax and wires for radials and be able to transport it the six blocks to a grass area next to the sand. I saw how it would work, so it was time for action.

In the shed I found two 3 foot sections of ½ inch steel water pipe I had used for an antenna mast a few years back. One of the sections still had a mount with a 3/8x24 stud with an SO-239 connector for the coax. This mount would work perfectly with my portable Hustler antenna system that incorporates single band elements that screw into a fold over mast that is also part of the radiating portion of the antenna. This is the antenna I use on the van when I am parked. It's really not suitable for mobile use in the way I mount it.

My next step was to build a battery box, since I didn't have one of those nice plastic ones laying around. Remember, the battery was all I could explain away with the boss and I also was really into doing this with what I had available on hand. I measured the starting battery in the van and went to work.

I was able to scrounge up a small voltmeter and switch and a couple of bolts and wingnuts for the power connections. Plus, I installed a small trickle charge battery charger I had so I could charge the battery after getting back from the beach.

With the power source done I went back into the shed and found an old carry-on size suitcase for the radio and cables. Having used this one before to carry my radio and cables to Mexico on the bus I knew that it would work here, also.

I connected one of the sections of water pipe to the dolly with two hose clamps which would be the base for the section with the antenna mount. With the two sections screwed together the mount set about 8 foot above the ground. A good height for an elevated vertical. But now I would need tuned radials. Back to the shed to scrounge a bit in the wire bin.

After cannibalizing a couple of old antennas I was able to make up three radials cut to 33 feet. Since I would be using an antenna tuner I wasn't to worried about exact resonant lengths for the frequency I would be using on 40 meters.

I now had the power source, the radio and tuner, antenna and transport system. I was just about ready to go. But first I had to test it.

I didn't have room in my backyard to spread out all three radials so I did the best I could and stretched out two. I tuned to 7.283.50 and was hearing the Pacific coast noontime net well, so checked in. The system was working. I was good to go.

I started thinking about where I planned to broadcast from and couldn't remember if that particular spot offered picnic tables. I would have to take my own table and chair, just in case.

Here it is all set to go. I even stowed a free standing umbrella in case of rain. The second piece of pipe and the antenna fit down in the chair bag and the fold over mast slid down into the piece of pipe mounted on the dolly.

Definitely not a rig for SOTA or any other type of backpack portable operation but good for the 6 blocks I needed to travel on paved sidewalks.

We arrived in Ocean Beach, CA. on Saturday afternoon so my first test would be Sunday morning. Since the net started at 7:30am local time I was wheeling my rig down the street at 5:30am. Like I said, I didn't remember what the area I was going to offer and it would be the first time I set the system up completely. I wanted to be sure to be ready to go when the first ones showed up to the net.

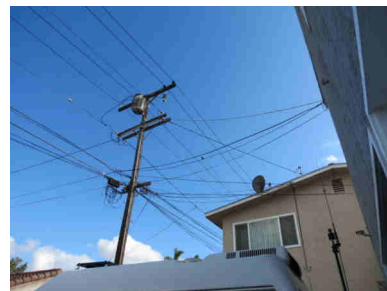


Things went well. There were picnic tables available so the table and chair I had strapped on weren't needed. I hadn't brought the umbrella because the weather was to be partly cloudy with no rain. What proved to be the hardest part of the set-up procedure was dealing with the radials. After stretching them out and staking them down I had to tie caution tape strips along their length so people walking by wouldn't walk into them. I did become quite a curiosity to the morning walkers.

My first contact after getting set up was KJ6GET/XE2 in Bara De Navidad, Mexico aboard the sailboat Joy. My second contact was KF7OWU in Port Townsend, WA. The system was working as I had hoped and I was able to do the net and perform my duties as weatherman for the boaters in Mexico.

Yes, it is a bulky heavy set-up and I look like a street person while pushing my rig along the streets. (In fact I was told by other street people where to find a free breakfast since they knew I was new in town. I got quite a laugh about that one). But it worked and I feel good about that.

Maybe by the next time I have to do something like this, Santa will bring me that FT-891 and lithium battery.



Remotely Administered Amateur Exam Systems Showing Promise

American Radio Relay League

Newington, CT, April 20th, 2020 – Facing a growing demand for amateur radio exam sessions in a time of social distancing and stay-at-home orders, sponsors of some Volunteer Examiner (VE) teams have risen to the challenge and are developing systems to remotely proctor test sessions.

"Many of our VEs and VE Teams have been working on remotely proctored exam session ideas, employing both video and in-person components — following social distancing protocols," ARRL Volunteer Examiner Coordinator (VEC) Manager Maria Somma AB1FM said. "We have been receiving interesting and innovative suggestions, and we appreciate the dedication and ingenuity our examiners have shown."

The **Spalding County Amateur Radio Club** in Georgia is among those that have come up with plans to remotely administer amateur exams while complying with ARRL VEC testing standards during COVID-19 stay-home mandates and social distancing guidelines. Current systems leverage Zoom video-conferencing technology, the "Fill & Sign" feature of Adobe PDFs, reliable email, appropriate computer equipment and internet connection, and no volunteer examiners (VEs) present at individual remote test sites. The Georgia club collaborated and shared ideas with the Emergency Amateur Radio Club (EARC) in Hawaii, which has successfully conducted sessions since 2011 with its own remote testing system, initially with paper exams with a proctor on site and now with fillable PDFs, with no on-site proctor.



The Georgia club obtained ARRL VEC approval to administer video-supervised exams. The club's David Robinson K4WVZ said the first exam session took place this week, with another set for next week, and "many more in the pipeline" going forward.

"We have started with testing just one candidate at a time but are planning to ramp up to multiple candidates — probably two or three — simultaneously," Robinson told ARRL. "Before we do that, we want a few more single sessions under our belt and a few more Video VEs trained. It also gives us an opportunity to garner lessons learned from each test session and upgrade our procedures accordingly." Robinson said this week's session went "exceedingly well," and the candidate passed the test.

The club's procedures entail a pre-exam video interview with candidates to ensure they understand all the requirements and procedures. "This also allows us to test the candidate's ability to work with the video and computer technology before the actual exam," Robinson explained. "Training sessions were conducted for VEs to make sure they understood their role and how to use the technology."

Following the exam, the VEs score the test and sign off on the paperwork, with the VE Team Leader submitting the application online and by mail, per ARRL VEC instructions. Application and successful exam are first accepted and then submitted to the FCC for processing.

New England Amateur Radio Inc (**NE1AR**), an affiliate of New England Sci-Tech, (**NESciTech**), has taken it one step further, Somma said. It got the approval of ARRL VEC to begin trials of what it describes as "completely online testing with strict rules and protocols for maintaining the integrity of the testing environment." NE1AR is limiting candidates to one exam per candidate, due to the current candidate backlog and the "difficulty of administering exams online." Candidates must agree to a list of protocols, which include no visitors (or pets) in the exam room and a cell-phone camera scan of the entire room and exam area "to show that there are no materials or people [in the room] that could aid in taking the exam." If the VE team suspects the possibility of cheating, the exam may be terminated and the candidate barred from future online exam sessions.

"We began a series of trials on April 1st under ARRL VEC review and have now been asked to help train more VE Teams on the process," NE1AR President Bob Phinney K5TEC told ARRL. "We have now tested 12 applicants and are still working on streamlining the process. We are working with the software developer of the exam delivery system to help them adapt the system for video-supervised testing." At present, Phinney said, only one person at a time can be tested. Another time-related issue is how long it takes a candidate to go through the NE1AR security protocol. "Sometimes, the setup and follow-up for an exam take far longer than the exam itself, in order that we provide complete integrity of the exam session," he said.

With pressure continuing to build to provide testing compatible with COVID-19 guidelines and stay-home orders, ARRL VEC Manager Maria Somma AB1FM has asked the amateur radio community to be patient. "Please remember that with the introduction of significant new processes such as these, that there should be proof of concept, establishment of protocols and procedures, and beta testing, before expanding to a larger audience," she said this week. Somma said video-supervised exam sessions require a different skillset than in-person exam administration, and not all teams will be equipped to deliver video exams right away.

"ARRL is pleased to be one of the leaders in providing an opportunity, although limited initially, for video-supervised exams in this time of social distancing and isolation required by the current health situation," Somma said.

Japan Extends 160 & 80 Meter Bands

Southgate Amateur Radio News

London, UK, Aprils 22nd, 2020 — Japan's **JARL** reports on April 21st, Japanese radio amateurs were granted extensions to the 1.8 and 3.5 MHz bands along with hands-on operation by unqualified people and simplification of licensing procedure

The JARL post says: "The frequency bands that have been additionally allocated this time are as follows:"

- + 1800 to 1810 kHz
- + 1825 to 1875 kHz
- + 3575 to 3580 kHz
- + 3662 to 3680 kHz

With this revision, Japanese radio amateurs can now operate FT8 on international standard frequencies.

In addition, it will also be possible to perform telephone communications such as SSB and image communications such as SSTV, which could not be operated on the 160m band until now, the allocation was previously just 1,810-1,825 and 1,907.5-1,912.5 kHz. (Application procedure is required for operation of telephone communication such as SSB and image communication such as SSTV in the additionally allocated 160m allocations.)

Part of the radio station license procedure rules has been revised, and simplification of the procedure for applying for a license change related to the operation of connecting an auxiliary device to the external input terminal of the amateur station transmitter.

Up to now, when performing data communication by connecting a personal computer, etc. to the external input terminal of the amateur radio, when performing new data communication it was necessary to formally submit specifications such as attached equipment (PC) specifications. Now, under certain conditions, amateurs will be able to omit the procedures that were required.

Until now use of an amateur station by unqualified people was limited to certain amateur radio stations such as for International Space Station school contacts. This restriction will be relaxed and expanded to all amateur stations under certain conditions.

In addition, with regard to the operation by unqualified people, the age limit has been removed from the youth, and the opportunity for many people from youth to the elderly to be interested in amateur radio will be expanded.

The full text of the JARL post can be seen at <https://tinyurl.com/JapanJARL>





NASA Reveals Wild Project For Turning a Moon Crater Into a Radio Telescope

David Nield, Science Alert.COM

Canberra, Australia, April 9th, 2020 – NASA just gave out a new round of grants for its favorite up and coming innovative space projects – one of which is a plan to fit a 1 kilometre (3,281 foot) radio telescope inside a crater on the far side of the Moon.

The Lunar Crater Radio Telescope (LCRT) would be able to measure wavelengths and frequencies that can't be detected from Earth, working unobstructed by the ionosphere or the various other bits of radio noise surrounding our planet.

Should the plans for the LCRT become a reality – and the new grant money could get it closer to that – it would be the largest filled-aperture radio telescope in the Solar System.

"LCRT could enable tremendous scientific discoveries in the field of cosmology by observing the early universe in the 10–50m wavelength band (6–30 MHz frequency band), which has not been explored by humans to date," writes robotics technologist Saptarshi Bandyopadhyay of the NASA Jet Propulsion Laboratory (JPL) in his project outline.

As per the plans, Moon rovers would pull out a wire mesh some 1 kilometre across, inside a lunar crater than could be up to 5 kilometres (3.1 miles) in diameter. A suspended receiver in the centre of the crater would complete the system.

Everything could be automated without any human operators, which would in turn mean a lighter and less expensive payload for the project to literally get off the ground.

This is still at the very early stage of planning, and it's not clear yet exactly which crater would be used for the job, but it's an intriguing concept that we'll be keeping an eye on in the years ahead.

The biggest radio telescope here on Earth is the Five-hundred metre Aperture Spherical Telescope or FAST, which has a 500 metre (1640 foot) diameter. Should the LCRT eventually get put together, it would be twice as wide.

FAST is already proving its worth, having already picked up mysterious fast radio bursts or FRBs from the depths of space. The LCRT proposed here has the potential to pick up many more phenomena.

There's now such an abundance of low Earth orbit satellites, listening to the cosmos from the surface of our planet is becoming increasingly difficult.

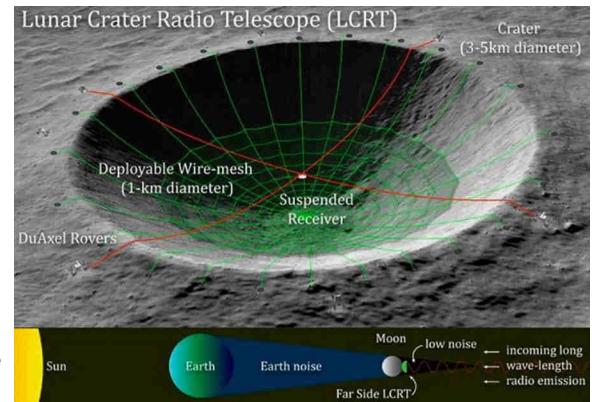
Working at low frequencies in the 6 to 30 MHz frequency band, the lunar crater telescope could perhaps tell us more about the earliest days of the Universe.

China and the Netherlands have already set up a radio telescope on the far side of the Moon, albeit a much smaller one. This telescope uses satellites to relay data back to Earth, like the LCRT will have to, if we pull it off.

The team behind the concept now has nine months and up to \$125,000 of NASA money to see if they can develop it further.

"Building the largest filled-aperture radio telescope in the Solar System on the far-side of the Moon is bound to create a lot of public excitement," Bandyopadhyay and his colleagues write in a 2018 paper on the idea.

"We envisage that this concept would unlock the potential for ground-breaking scientific discoveries in radio astronomy in wavelengths that are hitherto poorly explored by humans so far."



Illustrations courtesy of Saptarshi Bandyopadhyay, NASA Jet Propulsion Laboratory

The Libre Space Foundation Reviews Software Defined Radios

AI Williams WD5GNR courtesy of [Hackaday.com](https://hackaday.com)

Friendswood, TX, April 8th, 2020 If you want to go to the next level with Software Defined Radio (SDR), there are a lot of choices. The RTL-SDR dongles are fine, but if you get serious you'll probably want something else. How do you choose?

Well, your friends at the European Space Agency [Libre Space Foundation](https://librespacefoundation.org) have published a paper [comparing many common options](#). True, they are mainly looking at how the receivers work with CubeSats, but it is still a good comparison.

The devices they examine are:

- + RTS-SDR v3
- + Airspy Mini
- + SDRPlay RSPduo
- + LimeSDR Mini
- + BladeRF 2.0 Micro
- + Ettus USRP B210
- + Pluto SDR

They looked at several bands of interest, but not the HF bands – not surprising considering that some of the devices can't even operate on HF. They did examine VHF, UHF L Band, S Band and C Band performance. Some of the SDRs have transmit capabilities, and for those devices, they tested the transmit function as well as receive.

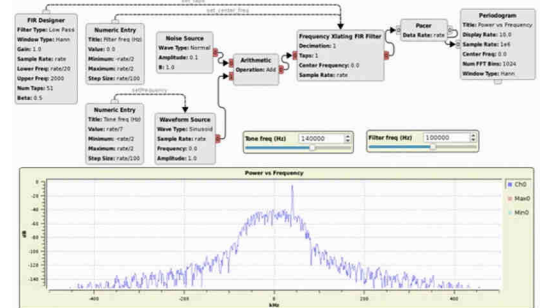
The review isn't just subjective. They calculate noise figures and dynamic range, along with other technical parameters. They also include GNURadio flowgraphs for their test setups, which would be a great place to start if you wanted to do these kinds of measurement yourself.

Towards the end of the 134 page report is an assessment of SDR software and how the boards are supported. We'll let you read the paper's conclusions, but there was no clear winner or loser, although they did mention how SDRPlay's closed source limited software support in some applications.

Even if the report made a recommendation, you'd need to temper their advice with your own needs. For example, if you want to work with HF frequencies, you'd need an upconverter for many of these boards, but not for all of them. Everyone's needs are a little different.

If you are interested in GNURadio, [try our tutorial](#). We'll be talking more about the PlutoSDR soon, but until then, you might enjoy [this free book](#), Software Defined Radio for Engineers.

It's wonderful to see the [Libre Space Foundation](https://librespacefoundation.org) thriving. After the [SatNOGs project won the original Hackaday Prize](#) way back in 2014, they used the winnings to form the Libre space Foundation as a non-profit, with the focus of [making open source space technologies widely available](#). This is an excellent continuation of that mission!



ARRL Suggests Taking a Creative Approach to Field Day 2020



Paul Bourque N1SFE, American Radio Relay League

Newington, CT, April 22nd, 2020 – This year, ARRL Field Day promises to be a unique iteration of this annual event, with many individuals and groups coming up with new and interesting ways to adjust their approach. As an event, Field Day is structured to be versatile and can be adapted for any situation.

Many groups have asked how they can adjust their Field Day planning to address social-distancing guidelines that may be in effect in many areas of the country, as gathering at their traditional Field Day site may not be feasible or safe. Instead of participating in a group event this year, consider operating as a Class B, C, D, or E station, utilizing your own call sign.

ARRL will include club names for all participating stations in the published results, so the efforts of your club's members can be acknowledged. While we will not publish an aggregate club score, seeing the name of your club associated with various individual member's results is certainly a way to highlight your club's activity.

Myriad opportunities are possible in this year's Field Day setting. These are just a couple.

- ◆ Consider having an intra-club competition among members, seeing who can make the most contacts during the event. You can award prizes or distribute certificates at a club meeting. This can be a fun way to bolster the activities of individual club members, even though they cannot all gather together at the same location this year.
- ◆ Set up a Field Day Challenge with rival clubs in neighboring communities. See how many members of each club get on the air from their own stations and participate in the event. In addition to "bragging rights," perhaps certificates to the top-scoring individual entries in each category can be presented as part of this inter-club camaraderie.

One club is planning to conduct its Field Day as a 4A club group, with participants spaced to comply with social distancing guidelines within the required 1,000-foot diameter circle and operating individual stations. This club also plans to set up a "Get on the Air" (GOTA) station. The club's plan is to have the GOTA coach at the Field Day site, while GOTA operators participate via remote link.

Another club is planning to set up a remote-controlled station at its usual Field Day site, with club members taking turns controlling the station from their homes. The club is developing a schedule that outlines when each member of the club will be at the helm via the remote link.

Whatever approach you take to this year's Field Day, keep up to date with the current guidelines issued by local and state health agencies that may impact your proposed operation.

ARRL invites your stories about the interesting and creative ways you're planning to use to adapt your Field Day operation. Share these on the [ARRL Field Day Facebook](#) page.

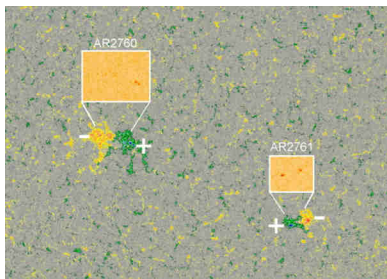
For the latest news and updates, visit the [Field Day webpage](#)

Two Solar Cycles Are Active At Once

SpaceWeather.com

SpaceWeather.com, April 28th, 2020 – Today, there are two sunspots in the sun's southern hemisphere. Their magnetic polarity reveals something interesting: They come from different solar cycles.

Take a look at this magnetic map of the sun's surface (with sunspots inset) from NASA's Solar Dynamics Observatory (below left):



One sunspot (AR2760) belongs to old Solar Cycle 24, while the other (AR2761) belongs to new Solar Cycle 25. We know this because of [Hale's polarity law](#). AR2760 is +/- while AR2761 is -/+, reversed signs that mark them as belonging to different cycles.

This is actually normal. Solar cycles always overlap at their boundaries, sprinkling Solar Minimum with a mixture of old- and new-cycle sunspots. Sometimes, like today, they pop up simultaneously. We might see more such combinations in the months ahead as we [slowly grind](#) our way through one of the deepest Solar Minima in a century.

The simultaneous appearance of two solar cycles suggests a type of temporary balance. In fact, the tipping point may have already been reached. So far this year, there have been 7 numbered sunspots. Five of them (71%) have come from Solar Cycle 25. This compares to only 17% in 2019 and 0% in 2018.

Slowly but surely, [Solar Cycle 25 is coming to life](#).

Montgomery, AL, April 14th, 2020 – The youthful Team Exuberance has announced that it's postponing its planned CQ WPX CW contest operation from K3LR until May 2021. Team Exuberance will compete in the multi-two category.

"While this decision was not taken lightly, it was clearly the appropriate action in light of the coronavirus pandemic," team member Bryant Rascoll KG5HVO said in an announcement. "Thank you to all individuals and clubs who financially contributed to our fundraising efforts," he said.

Those seeking to have their 2020 contributions refunded should [email him](#) or [Marty Sullaway NN1C](#). All funds retained will go toward Team Exuberance's next operation, Rascoll said.

—Bryant Rascoll
KG5HVO, courtesy of ARRL

ARRL 2020 Teachers Institute Sessions Cancelled

American Radio Relay League

Newington, CT, April 22nd, 2020 – The landscape of education in the US has been greatly affected by the current pandemic. As K – 12 school systems and universities have been forced to move entirely to remote learning, teachers and students have had to make dramatic adjustments to their teaching and learning methods.

After considering these educational challenges, along with travel restrictions and restraints on the ability to gather in groups, ARRL leadership feels it is appropriate and necessary to cancel the 2020 Teachers Institute.

We look forward to bringing back this important program in 2021, so that we can continue promoting amateur radio in the classroom through our Education and Technology Program (ETP).



Long-Lost US Military Satellite Found by Amateur Radio Operator

Joe Palca, Scott Neuman, "All Things Considered, National Public Radio

Washington, DC, April 24th, 2020—There are more than 2,000 active satellites orbiting Earth. At the end of their useful lives, many will simply burn up as they reenter the atmosphere. But some will continue circling as "zombie" satellites — neither alive nor quite dead.

"Most zombie satellites are satellites that are no longer under human control, or have failed to some degree," says Scott Tilley VE7TIL/VA7LF.

Tilley, an amateur radio operator living in Canada, has a passion for hunting them down.

In 2018, he found a signal from a NASA probe called IMAGE that the space agency had lost track of in 2005. With Tilley's help, NASA was able to reestablish contact.

But he has tracked down zombies even older than IMAGE.

"The oldest one I've seen is [Transit 5B-5](#). And it launched in 1965," he says, referring to a nuclear-powered U.S. Navy navigation satellite that still circles the Earth in a polar orbit, long forgotten by all but a few amateurs interested in hearing it "sing" as it passes overhead.

Recently, Tilley got interested in a communications satellite he thought might still be alive — or at least among the living dead. [LES-5](#), built by the Massachusetts Institute of Technology's [Lincoln Laboratory](#), was launched in 1967.

Tilley was inspired by [another amateur who in 2016 had found LES-1](#), an earlier satellite built by the same lab. What was intriguing to him about LES-5 was that if it was still working, it might be the oldest functioning satellite still in geostationary orbit.

By scouring the Internet, he found a paper describing the radio frequency that LES-5, [an experimental military UHF communications satellite](#), should be operating on — if it was still alive. So he decided to have a look.

"This required the building of an antenna, erecting a new structure to support it. Pre-amps, filters, stuff that takes time to gather and put all together," he says.

"When you have a family and a busy business, you don't really have a lot of time for that," he says.

But then came the COVID-19 pandemic.

British Columbia, where Tilley lives, was on lockdown. Like many of us, suddenly Tilley had time on his hands. He used it to look for LES-5, and on March 24, he hit the ham radio equivalent of pay dirt.

He's been making additional measurements ever since.

"The reason this one is kind of intriguing is its telemetry beacon is still operating," Tilley says.

In other words, says Tilley, even though the satellite was supposed to shut down in 1972, it's still going. As long as the solar panels are in the sun, the satellite's radio continues to operate. Tilley thinks it may even be possible to send commands to the satellite.

The MIT lab that built LES-5 still does a lot of work on classified projects for the military. NPR contacted its news office to ask if someone could say more about LES-5 and whether it really could still receive commands.

But after repeated requests, Lincoln Laboratory finally answered with a "no comment."

It seems that even a 50-year-old zombie satellite might still have secrets.

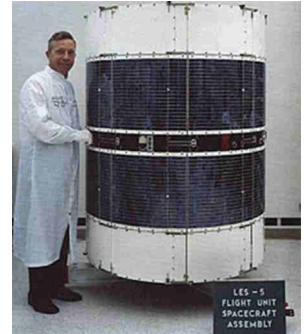
Listen to and read the full NPR story: <https://www.npr.org/2020/04/24/843493304/long-lost-u-s-military-satellite-found-by-amateur-radio-operator>

Scott's tweet announcing the discovery is at <https://twitter.com/coastal8049/status/1242652814465105920>

His blog post discussing the details of the recovery of LES-5 can be found at <https://skyriddles.wordpress.com/2020/03/27/the-recovery-of-les-5/>

A brief look at LES-5's Telemetry Format: <https://skyriddles.wordpress.com/2020/04/09/a-brief-look-at-les-5s-telemetry-format/>

[LES-5 (Lincoln Experimental Satellite 5) was built in 1966, launched into orbit in July 1967, and officially deactivated in May 1971. More information about LES-5 can be found on Gunter's Space Page at https://space.skyrocket.de/doc_sdat/les-5.htm — ed]



Undated pre-launch picture of LES-5, courtesy of Gunter's Space Page

Central States VHF Society Conference Cancelled

Central States VHF Society, American Radio Relay League

Hillsboro, WI, April 28th, 2020 — The 54th Annual Central States VHF Society ([CSVHFS](#)) conference, set for July 24th & 25th, 2020, has been postponed until next year — July 30th – 31st, 2021.

The conference hotel, Radisson Hotel La Crosse in La Crosse, WI, is not yet ready to accept 2021 reservations.

"Be well and get on the VHF+ bands!" CSVHFS President Bruce Richardson W9FZ offered in announcing the cancellation.

More information available at <http://2020.csvhfs.org/>



ARRL/TAPR DCC Going Virtual

Stana Horzepa WA1LOU, TAPR

Wolcott, CT, April 10th, 2020—Due to recent events, the 2020 ARRL and TAPR Digital Communications Conference Conference ([DCC](#)), originally planned for Charlotte, North Carolina, will be moved to an online virtual conference on the same dates as originally planned, September 11th – 13th, 2020.

The details of the Virtual DCC will be announced in the coming months as details and plans are finalized.

We plan to hold the 2020 DCC in Charlotte in the September 2021 time frame.

Final details of the 2021 DCC will be announced later in the year.

Proceedings from the last four ARRL and TAPR Digital Communications Conferences (DCCs 2016-2019) are now online at the new TAPR website, <https://tapr.org/digital-communications-conference-dcc-papers/>. This is a double treat because the last two conference proceedings have never been online before.

More information available on the new TAPR website, <https://tapr.org>



Emergency Ventilator Designed & Constructed by Hams Going to the FDA

American Radio Relay League

Newington, CT, April 27th, 2020 – Radio amateurs have succeeded in providing a complete, working ventilator system to University of Florida researchers who are in the process of applying to the Food and Drug Administration for an Emergency Use Authorization (EUA). A successful submission would blaze the way for volunteers and manufacturers around the world to create low-cost, highly functional Intensive Care Unit (ICU) or anesthesia-care ventilators that offer many of the features of modern ventilators at a fraction of the typical cost. Dr. Gordon Gibby KX4Z, who is associated with the project, said efforts to further improve the device are ongoing.

"We made a stunning improvement in accuracy of the system and measuring volumes last night at about 1 AM," he told ARRL. "Accuracy of that particular alarm measurement went from about 300%, down to about 10%. The FDA submission is being readied, but we keep making engineering improvements."

Gibby credited some of the primary volunteers. "Bob Benedict KD8CGH has provided incredible volunteer testing, now exceeding 1.6 million cycles on one crucial valve and 300,000 on another. Jack Purdum W8TEE is the main 'code-cleaner' for one of multiple teams building software, following the initial lead of Marcelo Varanda VA3MVV. Ashhar Farhan VU2ESE not only created the ventilator controller schematic but the printed circuit board layout that will be part of an expected University of Florida submission." Farhan was among the founding code writers of what we now know as Voice over Internet Protocol (VoIP).

Other hams worked on mechanical designs for flow measurements and retooled potential manufacturing capabilities otherwise used to produce transceivers. In another example of ham radio ingenuity, Marc Winzenried WA9ZCO modified a readily available lawn sprinkler to serve as a durable expiratory valve. This development enabled the ventilator to go more than 1 million breaths before significant valve issues developed, and the part can be replaced for less than \$15.

The completed prototype in Florida was built using typical tools by a radio amateur, and assembled boards provided by LifeMech, a manufacturer working with the project. Farhan crafted an extendable menu structure for the Arduino Nano-based controller, and gas-flow measurements are made every few milliseconds by an I2C-based differential pressure transducer that can measure down to tiny PSI fractions, allowing the design to accurately track patient-induced variations in the volume of delivered gasses.

"Using Winzenried's expiratory valve, electronic on-off control at the rate of 30 Hz allows modulation of the valve to set the continuous airway pressure used to keep the patient's lung alveoli open against virus-induced water-logging of the connective tissue," Gibby explained. An improved software design allows faster monitoring that accurately measures patient breaths despite gas flow perturbations, with the only valve component showing wear after nearly a million cycles is the nitrile diaphragm.

"Perhaps the most surprising development was the addition of the ability to sense patient effort to take a breath and immediately switch to assisting the patient with that breath, known as 'assist-control' ventilation," Gibby said. "This is expected to allow far lighter sedation of patients — potentially even no sedation — and allows patients' crucial respiratory muscles to keep up their strength." He said the current design goes far beyond the FDA's guidance document for emergency ventilator development.

Radio amateurs delivered the operational control system, basic manufacturing instructions, software, and software explanation to the University of Florida on April 24th.



The ventilator airway components.
Photo courtesy of Dr. Gordon Gibby KX4Z



A ventilator controller board, constructed by Michael Stapleton WD4LHT.
Photo courtesy of Dr. Gordon Gibby KX4Z

Amateur Radio: Not Just a Hobby

John Fury KJ4PGD

Assistant Park Manager, James River State Park, VA

Gladstone, VA, April 24th, 2020 – When I was a kid, I can remember my grandparents having a CB (Citizen Band) radio in their van and using it to talk with truckers during our family trips. When I started driving, I wanted one so that I could talk to my friends. One day my teacher, Mr. Crawford (call-sign WV4L), asked me about the extra antenna on my truck. I told him it was for a CB radio, and he asked me if I had any interest in amateur radio.

At the time, I had no idea what it was. He explained that I would be able to talk to folks around the world! I became intrigued. Mr. Crawford gave me a book to study. I took the Technicians Class test, the first level of licensing, passed and was issued my call sign, KJ4PGD.

After about a year, I went back and acquired my General Class license. This gave me access to more amateur frequencies that allowed me to talk to places that were even farther away. I made contacts with stations all over North America, Europe and other continents. Shortly after that, I went back to acquire the final level of licensing which is the Extra Class license. This Class gives me access to all of the frequencies that the [Federal Communication Commission](#) allots to amateur radio operations.

Why?

Many people ask me "what is the point in amateur radio?" "Why do you have those antennas on your truck?" It's no different than any other hobby. Some folks enjoy photography, some people enjoy exercising, I enjoy talking with folks from around the world over the airwaves. I have many hobbies; such as mountain biking, camping, off-roading and more. Amateur radio is a hobby that I can use in addition to those hobbies to make them even more fun.

Having belonged to the Covington Amateur Radio Club and the [Westmoreland Amateur Radio Club](#), I have made many friends over the years, some of which have practically become family. The clubs are where I learned that friendship and comradery is just as important as the skills that we develop.

For my job as a park ranger, I have used many of the skills that I have learned from amateur radio in my day-to-day job:

- I use the technical skills to install and repair park radios. I developed a paging system to alert park staff of pertinent information.
- I have also developed interpretive programs that showcase amateur radio. At [Douthat State Park](#), I did a program called "Ham it up." Where we talked about amateur radio and its many uses outdoors. When I went to [Westmoreland State Park](#) as a Chief Ranger, I took that program with me and with the help of the [Westmoreland Amateur Radio Club](#), we enhanced it and added new programs. Such as alternative energy day, we talked about and demonstrated the many different types of energy production methods.
- I developed an APRS (Automatic Packet Report System) Workshop. When I put on the event, the local amateur radio operators



John & his Co-pilot. Photo courtesy of John Fury KJ4PGD

Continued on Page 25

75th Anniversary of VE Day and VJ Day Amateur Radio Marathon

Radio Society of Great Britain

To commemorate the 75th anniversary of VE Day and VJ Day, the RSGB has organised the VE/VJ Day amateur radio marathon on the HF bands and 6m using SSB, CW and digital modes

Three special UK call signs GB75PEACE, GB1945PE, GB1945PJ will be on the air from 1-31 May 2020 and 1-31 August 2020.

The special stations have their own QRZ.com pages that give details of the activation schedule.

How to participate as a special UK call sign

If you wish to participate and transmit using a VE/VJ Day radio marathon call sign, please contact Ian, GØFCT at csc.chair@rsgb.org.uk.

Award Requirements

There are five levels of award available which can be gained as an All Modes award or as a Single Mode Award. The award requirements are:



All Modes Award:

+	Bronze:	18 slots
+	Silver:	6 Slots
+	Gold:	54 slots
+	Platinum:	72 slots
+	Supreme:	90 slots



Single Mode Award:

+	Bronze:	6 slots
+	Silver:	12 Slots
+	Gold:	18 slots
+	Platinum:	24 slots
+	Supreme:	30 slots



Modes: SSB, CW, Digital (includes RTTY, PSK, FT4, FT8 etc)

Bands: 160m, 80m, 40m, 30m, 20m, 17m, 15m, 12m, 10m, 6m

For the All Modes Award, the Bronze Award is achieved if you fill 18 callsign/band/mode slots.

For example, if you work all three special stations on 80m and 40m using SSB, CW and a digital mode, this means you have filled 18 slots.

Equally, you could fill 18 slots by working all three of the special stations on 80m, 40m and 30m using SSB and CW.

For the Single Mode Award, the Bronze Award is achieved if you fill 6 callsign/band/mode slots.

For example, if you work all three special stations on 80m and 40m using SSB, this means you have filled 6 slots.

Equally, you could fill six slots by working two of the special stations on 80m, 40m and 30m using CW.

How to claim your Award:

Download and complete the VE/VJ Day Radio Marathon [Application Form](#), including an electronic log of your QSOs in ADIF format and email to awards@rsgb.org.uk

Amateur Radio: Not Just a Hobby

continued from Page 24

had a blast using their amateur radios to send text messages, emails and learn how to track their position when traveling on foot or vehicle.

While it's interesting and fun, the real purpose behind amateur radio is to have an emergency means of communication. Many federal and state agencies have amateur radio operators either working for them or with them to have a secondary means of communications.

Parks on the Air:

In 2016, when the [National Park Service](#) (NPS) was celebrating their centennial anniversary, the [American Radio Relay League](#) (ARRL) teamed up with the NPS to help promote their parks. There was a contest for amateur radio operators. During this contest, you would have "activators" and "chasers." Your "activators" would go to the parks and set up their radios in a portable manner and callout for contacts. Then the "Chasers" would track them down on the airwaves and talk to them. Generally, it would be a short exchange of information but often it would be conversations about the park and what made it special.

The National Parks on the Air event ended in 2017, this left many amateur radio operators wanting more, so a group of operators created another contest called Parks on the Air. This contest is focused on portable amateur radio operations that promote emergency awareness and communications from national and state level parks. In addition to the [National Parks](#), this event added state parks, state wildlife preserves and state forests. It is a contest, but the real prize from this event is the knowledge and skills that you gain from the experience.

When we started social distancing we used our park radios in a "Net" manner to host staff meetings at [James River State Park](#). One person gets on the radio as a net control operator and then everyone checks in and monitors the radio, while information is being distributed. After the net control delivers the key information, everyone gets a chance to check in and ask questions or share information. This is very different from normal operations and we generally limit the amount of time spent on the radio. We found this to be a very useful way to deliver information during the unprecedented times.

In 2019, the average age of Amateur Radio Operators is over 80 years old (that is a Wiki report, take it for what it's worth). High-risk amateur radio operators are staying home to ensure their safety with social distancing. In an effort to keep connected during these social distant times, many operators get on the air daily to check in with one another and keep them company.

One thing I have learned, there aren't many Hams going out to the parks to put them on the air. What I have been doing is visiting different parks and Wildlife Management Areas to activate them, giving the operators that are socially distancing the chance to continue their chase and a friendly conversation to keep them company. I do this all while following the social distancing guidelines.

What I am doing isn't much. Honestly, I'm getting the better end of the deal because I get to see the parks first hand and enjoy their beauty. I really hope that I help make someone's day by being that friendly voice over the air waves that keeps them company during these unprecedented times.

For more information on becoming a Amateur Radio Operator, please click [here](#). For more information on [James River State Park](#), please click [here](#).

— thanks also to Virginia DCR State Parks [Blog](#)



John's Mobile Rig

Pittsburgh Area VHF/UHF Nets

courtesy of Bob Mente NU3Q

DAY	TIME (ET)	LOCATION	MODE	FREQ. (MHz)	CALL	TONE (Hz)	NET NAME / NOTES
Mon Thru Fri	8:45 AM	Beaver	FM	146.85-	WW3AAA	88.5	Breakfasters Net
Sunday	8:30 AM	Carnegie	FM	147.03+	W3KWH	123	Quarter Century Wireless Assoc Net
Sunday	7:30 PM	Butler	FM	147.36+	W3UDX	131.8	Butler County ARA C4FM Net
Sunday	8:00 PM		DIGITAL	FUSION			Keystone West-Room 60328
Sunday	8:00 PM	Hopwood	DIGITAL	443.75+	W3PIE	131.8	Keystone West FUSION
		Carnegie		444.45+	W3KWH	103.5	
		New Kensington		444.525+	K3MJW	131.8	
Sunday	9:00 PM	Pgh/Hazelwood	FM	145.47-	WA3PBD	71.9	Scanner Net
Monday	7:30 PM	Widnoon	FM	145.41-	K3QY	173.8	Armstrong County Net
Monday	8:00 PM	Pgh/Homestead	FM	146.73	WA3PBD	94.8	Two Rivers ARC Monday Night Net
				223.94		118.8	Includes AR Newslite & Area Ham Radio Information
Monday	8:00 PM	Indiana	FM	146.91-	W3BMD	CSQ	Indiana County Net
Monday	8:00 PM	Mount Lebanon	FM	146.955	N3SH	131.8	Wireless Assoc of South Hills Net
Monday	8:00 PM	Butler	FM	147.36+	W3UDX	131.8	Butler County Weather Watch Net
Monday	8:30 PM	Beaver	FM	146.85-	WW3AAA	88.5	Beaver County Public Service Net
Monday	9:00 PM	Beaver	FM	146.85-	WW3AAA	88.5	Triple A ARA Net
Monday	9:00 PM	Widnoon	FM	145.41-	K3QY	173.8	Armstrong County ARES Net
Monday	9:00 PM		DIGITAL				W.Pa. DSTAR Repeaters-DSTAR (REF 063C)
Monday	9:30 PM		DIGITAL				Raspberry Pi DSTAR Net-DSTAR (REF 026A)
Tuesday	8:00 PM	Monongahela	FM	147.225+	KA3BFI	131.8	Monessen ARC Net
Tuesday	8:00 PM	Carnegie	FM	147.03+	W3KWH	131.8	Steel City ARC Net
Tuesday	8:00 PM	West Alexander	FM	145.25-	K3PSP	131.8	Washington & Greene County 2 Meter Net
		Washington		146.79-		No Tone	
		Scenery Hill		147.285+		131.8	
		Smith Twp		147.39+		131.8	
		Waynesburg		147.315+		131.8	
Tuesday	8:00 PM	Carrick	FM	146.61-	W3PGH	131.8	Salvation Army Emergency Net
Tuesday	8:30 PM	Pgh/N.Hills	FM	147.09+	W3EXW	88.5	North Hills ARC Net (Backup 146.88 MHz Repeater)
Tuesday	9:00 PM	Pgh/Homestead	FM	51.74	WA3PBD	103.5	Gateway FM Assoc "Above 30 MHz Net"
Wednesday	7:00 PM	Monongahela	FM	147.225+	KA3BFI	167.9	Tri County ARC Net
Wednesday	7:30 PM		DIGITAL	TALK GRP 31422			W.Pa. Digital Voice Net-DMR
Wednesday	8:00 PM	West Alexander	FM	145.25-	K3PSP	131.8	NBEMS Digital Training Net
		Washington		146.79			
		Scenery Hill		147.285+			
		Smith Twp		147.39+			
		Waynesburg		147.315+			
Wednesday	8:00 PM	Morgantown WV	FM	146.925-	AA8CC	103.5	Mon County ARC Net
Wednesday	8:30 PM	New Kensington	FM	146.64-	K3MJW	131.8	Murrysville ARES Net
Wednesday	8:30 PM	Beaver Falls	FM	145.31-	W3SGJ	131.8	Beaver Valley ARC 2 Meter Net
Wednesday	8:30 PM	Pgh/N.Hills	FM	147.09+	W3EXW	88.5	Allegheny County Skywarn Net (1st & 3rd Wednesdays)
Wednesday	9:00 PM	Pgh/N.Hills	FM	147.09+	W3EXW	88.5	Allegheny County Public Service Net
Wednesday	9:00 PM	Greensburg	FM	147.18+	W3LWW	131.8	Westmoreland County WEARS Net
				442.15+	WC3PS		Note: After the 147.18 MHz Net (above) Closes
Thursday	7:00 PM	Pgh/Oakland	FM	146.88-	W3EXW	88.5	Boy Scouts Net
Thursday	7:00 PM	Pgh/Homestead	FM	146.73-	WA3PBD	94.8	"This Week In Amateur Radio-Host"- Dan KB3FCZ
				223.94-		118.8	Simulast of "This Week In Amateur Radio"
Thursday	8:00 PM	Beaver	FM	146.85-	WW3AAA	88.5	Digital Training Net
Thursday	8:30 PM	Pittsburgh	USB	50.5			North Hills ARC 6 Meter Net
Thursday	9:00 PM	New Kensington	FM	146.64-	K3MJW	131.8	Skyview Radio Society Net
Thursday	9:00 PM	Uniontown	FM	147.045-	W3PIE	131.8	Uniontown ARC 2 Meter Net (Backup 147.225 MHz)
Thursday	9:30 PM	Pgh/Oakland	FM	146.88-	W3EXW	88.5	Rail Fan Net

continued on Page 25

Pittsburgh Area HF Nets

courtesy of Bob Mente NU3Q

DAY	TIME (ET)	FREQ	MODE	NOTES
Daily	9:00 AM	3.983 MHz	LSB	Health & Welfare Net
Daily	4:00 PM	3.918 MHz	LSB	Third Regional Phone & Traffic Net
Daily	6:00 PM	3.983 MHz	LSB	WPA Phone & Traffic Net
Mon Thru Fri	7:30 AM to 2:00 PM	7.255 MHz	LSB	East Coast Amateur Radio Service
Mon Thru Fri	9:00 AM	3.905 MHz	LSB	Old Buzzards Net
Mon Thru Fri	7:00 PM	3.585 MHz	CW	WPA CW Traffic Net
Saturday & Sunday	8:00 am to 12 Noon	7.255 MHz	LSB	East Coast Amateur Radio Service
Sunday	8:00 AM	3.583 MHz	DIGITAL	Pennsylvania HF NBEMS Net
Sunday	8:00 AM	3.993.5 MHz	LSB	State Wide PEMA/ACS Net 1st Sunday of month
Sunday	8:30 AM	3.993.5 MHz	LSB	Central Region PEMA/ACS Net
Sunday	9:00 AM	3.990.5 MHz	LSB	PEMA/ACS Western Region Net
Sunday	8:00 PM	28.150 MHz	CW	Tri County ARA CW Net
Sunday	9:00 PM	28.450 MHz	USB	Tri County ARA Phone Net
Monday	9:00 PM	28.480 MHz	USB	Breezeshooters 10 Meter Net
Monday	9:00 PM	3.907 MHz	LSB	Pennsylvania Fone Net
Monday	9:00 PM	3.983 MHz	LSB	Ft. Armstrong Month HF Net Last Monday of month after 2m net closes
Tuesday	7:00 PM	3.858.5 MHz	LSB	Skyview Round Table
Tuesday	9:30 PM	28.340 MHz	USB	WACOM Ten Meter Net
Wednesday	10:00 AM	7.255 MHz	LSB	East Coast Amateur Radio Service-Swap n Shop Net
Wednesday	8:00 PM	28.350 MHz	USB	WEARS Ten Meter Net
Wednesday	9:00 PM	3.907 MHz	LSB	Pennsylvania Fone Net
Wednesday	9:00 PM	28.470 MHz	USB	Beaver Valley ARC 10 Meter Net
Thursday	8:00 PM	28.350 MHz	USB	WEARS Ten Meter Net
Thursday	9:00 PM	21.360 MHz	USB	Monessen ARC Net
Friday	9:00 PM	3.907 MHz	LSB	Pennsylvania Fone Net
Saturday	9:00 AM	3.983 MHz	LSB	W.Pa. ARES Voice Net Alternate 7.272 MHz 5.4305 MHz USB (after 3.980 MHz closes - Althernate 5.3175 MHz)

Pittsburgh Area VHF/UHF Nets

continued from Page 24

DAY	TIME (ET)	LOCATION	MODE	FREQ. (MHz)	CALL	TONE (Hz)	NET NAME / NOTES
Friday	8:00 PM	Bentleyville	FM	147.27+	WB3CCN	131.8	Fayette County Skywarn Net
							Southwest Pa Mail Bag Traffic Net follows 8pm Net
Friday	8:00 PM	Beaver	FM	146.85-	WW3AAA	88.5	Amateur Radio Newsline
Friday	9:00 PM	Elkins WV	FM	146.775	KB8BWZ		West Virginia Net
Saturday	9:00 PM	Pgh/Oakland	FM	146.88-	W3EXW	88.5	Elmer Net

Notes:

- (1) All frequencies listed are repeater transmit frequencies. Repeater input frequencies are either +, or - from the transmit frequency.
- (2) 145 & 146 MHz repeaters use - 0.600 kHz for input to repeater
- (3) 147 MHz repeaters use + 0.600 kHz for input to repeater
- (4) 223 MHz repeaters use - 0.600 kHz for input to repeater
- (5) 442, 443, 444 MHz repeaters use + 5 MHz for input to repeater
- (6) Some Nets May Not Be Currently Active.
- (7) Please note that this document is not meant as an all encompassing list of W.Pa. radio nets. It is meant as a guide to help the reader find nets in the Pittsburgh and surrounding areas.

Credits:

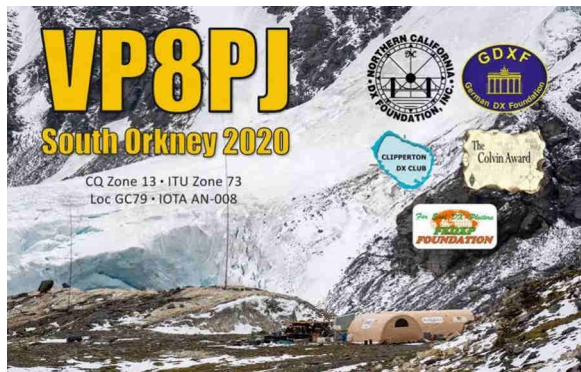
Dan KB3FCZ, Bob WC3O,

Web Sites of : North Hills ARC, Steel City ARC, Beaver Valley ARC, Uniontown ARC, WASH, WACOM, WEARS, Triple A ARA, ARRL W.PA.

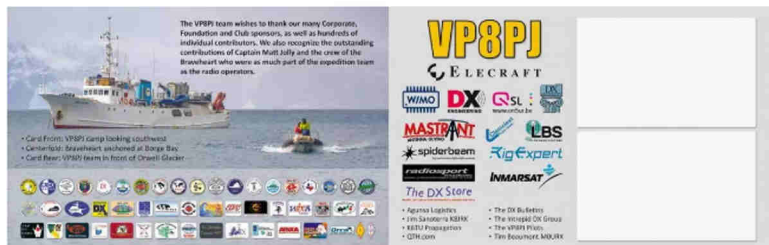
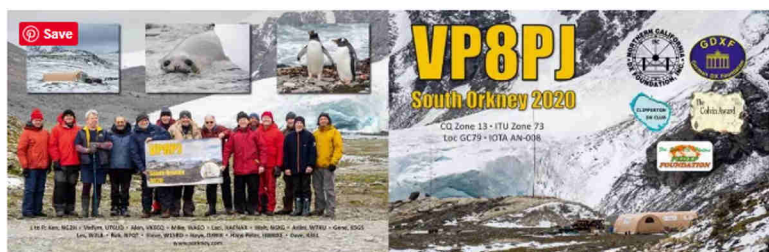
VP8PJ QSL Cards

Intrepid-DX Group

San Jose, CA, April 23rd, 2020 — This card is the Buro card for VP8PJ, and the overflow card for those that require additional QSO space.



This is the primary QSL card for the project.



Thanks to all who processed a request on OQRS or mailed their request to Tim MØURX.

The cards will be shipped from ON5UR Print Services in Belgium to the UK. Tim has already printed the QSO labels and printed the postage. As soon as Tim receives the cards he will stuff the envelopes and take to the post office.

With the Covid19 airline disruptions international mail is slower than normal, so please have patience.

As a reminder, all VP8PJ confirmation processing is handled by Tim MØURX, from the UK.

Buro cards will be placed in the buro system in early 2021.

DXCC 20 Most Wanted

Courtesy of ClubLog

Updated 22 April 2020

- | | | | |
|-----------|--------------------|----------|--------------------------------|
| 1. P5 | DPRK (NORTH KOREA) | 12. VKØM | MACQUARIE IS. |
| 2. 3Y/B | BOUVET ISLAND | 13. YVØ | AVES ISLAND |
| 3. FT5/W | CROZET ISLAND | 14. KH4 | MIDWAY IS. |
| 4. BS7H | SCARBOROUGH REEF | 15. ZS8 | PRINCE EDWARD & MARION ISLANDS |
| 5. CEØX | SAN FELIX ISLANDS | 16. PYØS | SAINT PETER & PAUL ROCKS |
| 6. BV9P | PRATAS ISLAND | 17. PYØT | TRINDADE & MARTIM VAZ ISLANDS |
| 7. KH7K | KURE ISLAND | 18. KP5 | DESECHEO IS. |
| 8. KH3 | JOHNSTON IS. | 19. SV/A | MOUNT ATHOS |
| 9. 3Y/P | PETER 1 ISLAND | 20. VP8S | SOUTH SANDWICH ISLANDS |
| 10. FT5/X | KERGUELEN IS. | | |
| 11. FT/G | GLORIOSO IS. | | |

DX News Briefs

Reminder that the US Postal service continues their **"Temporary Suspension of International Mail Service"** many countries due to the COVID-19 pandemic. The complete list can be found at <https://about.usps.com/newsroom/service-alerts/international/welcome.htm>



A significant number of stations will be operating with '75' in their prefixes during May, to commemorate the **75th anniversary of the end of World War II in Europe**. QSL as directed.

Monk Iakovos **SV2RSG/A**, will be active from the Koutloumousiou Holy Monastery at Mount Athos between 7 – 10 May. Activity will be on 20 meters using CW and SSB. QSL via SV2RSG/A direct to: Monk Iakovos Kutlumusian, Holy Monastery Koutloumousiou, Karyes, 63086, Greece. His last activity is in November.

CQ82AS is QRV until 7 May. QSL via CU8AS

GB1SOS is QRV until 11 May. QSO via MIØGTA

8J1ITU will be QRV through May to commemorate the anniversary of the foundation of the ITU, as the Japan ITU ARC does every year. QSL via the JARL Bureau.

8J1RL will be QRV from the Japanese Antarctic Research Expedition base on Queen Maud Land (AN-015) through January 2021. QSL via JG2MLI

HL4ØGDM will be QRV until 31 May. QSL via HL4CCM

CH2IR is QRV from Labrador City until 20 June. QSL via VO2IR

OE5ØMHZ is QRV through 31 June, to mark the 30th anniversary of the first release of 6 meters in Austria. He will be QRV on CW, SSB & Digital modes. QSL via LotW & eQSL. Paper QSLs will be sent automatically via the bureau.

EY8MM reports that Tajikistan amateurs again have **access to 6 meters**, for the first time in at least 10 years.

The Saudi Amateur Radio Society has announced that **HZ** amateurs now have access to 6 meters.

AU2COV will be QRV from Kolkata until 26 July. QSL via VU2WB.

A91WTIS will be QRV 10 – 17 May for the World Telecommunication and Information Society Day event. QSL via A92AA.

The Lagunaria DX Group has announced that they have postponed their planned DXpedition to **4W Timor-Leste** indefinitely. They will try to reschedule it, once travel and related situations improve, hopefully by the end of this year of early 2021. More information at <http://timor-leste-dx.de>

ON4RU/OQ3R has cancelled his planned **FM/OQ3R / T03F** trip, scheduled for the end of May.

QSL Manager Ted Melinosky K1BV is reportedly very ill and hospitalized. It is requested that no QSL requests be sent to him until he recovers.

Z81D is now available on ClubLog and LotW.

VP5VMA is now **VP5MA**, as of 1 February 2020. His next activation is unknown. QSL direct via W4HBW.

QSL Routes

3G2HOME via CE2ML	GB4NHS via MIØLPO	RP75BKF via RN3RQ
3Z8ØHUBAL via SP7EXY	GB4SAH via G4XEX	RP75DD via RP75DD
4A6ØM via XE2KJ	GB5SAH via G4XEX	RP75EP via UA1ZZ
4Ø7CC via UA4CC	GB6NHS via MØKLG	RP75FA via RO3F
5W19STAYSAFE via 5W1SA	GB8NHS via MIØMOD	RP75GL via UA6CT
6Y5FS via G3RFS	GB8SAH via G4ISN	RP75GRO via RK3TV
9AØDIG via 9A3SM	GB9WYH via G3BRS	RP75IAP via RM6J
A6ØSH/14 via A65GC	GB1945PE via GB1945PE	RP75KC via RN3RQ
AØ195BQR via EA1BQR	HF4NATI via SP3PDK	RP75KF via RW4NW
AT2ØSH via VU2HIT	HF8ØHUBAL via SP7SEW	RP75MIK via RK3MXT
AT2SHI via VU2UUU	HL4ØGDM via HL4CCM	RP75ML via RP75ML
AT9SS via VU2NSL	I15MPI via IQ5JA	RP75MM via RN3RQ
AU2COV via VU2WB	IO6STAY via IK6QON	RP75O via R2EA
B3CRA via BA1GG	IR4K via IZ4ZZB	RP75OD via RK3Y
C4W via 5B4WN	LW1D via LW1EUD	RP75ON via RZ3LC
CB3STAYHOME via EA5GL	LZ736W via Z33Z	RP75QP via UA3ØØ
CH2IR via VO2IR	LZ7X via LZ1UQ	RP75RF via RK3SWB
CN2ØSH via RW6HS	OE1STAYHOME via OE1SGU	RP75RO via R2DE
DP7D via DF1ØR	OG6N via OH6NIO	RP75SZ via RC4A
E2STAYHOME via E21EIC	OO3Ø via ON4FN	RP75TK via R9GM
ED1YCA via EA1URA	OU2W via OZ1ETA	RP75UA via RU3DFA
ED5URR via EA5URR	OZ7STAYHOME via OZ7DK	RP75VP via RA3FP
EF3P via EA5GP	PA75DX via PA5DX	RP75VT via RD2D
EH7STAYHOME via EB7DX	PA75HGV via PA3JD	UP75A via UP75A
EK1915DX via EK7DX	PC19STAYSAFE via PA7HPH	W5L via W5LA
EK1915RR via EK1RR	PC75FREE via PA9CW	ZM2MY via ZL2MY
GB2SAH via MØWMB	RP75AO via RZ5D	ZM4T via ZL3IO

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.

Somerset County ARC 20th Annual Hamfest

Sunday, July 19th, 2020, 8:00 AM—1:00 PM

Vendor Setup starting at 6:00 AM



Somerset County Technology Center

156 Sequoia Drive, Friedens, PA 15541

Talk-in on 147.195 & 443.250 PL 123 Admission \$5

More Information at <http://www.k3smt.org>

Skyview Radio Society “Swap N Shop”

(date unconfirmed) Sunday, August 30th, 2020, 8:00 AM—???

Vendor Setup prior to 8:00 AM



K3MJW Clubhouse

2335 Turkey Ridge Road, New Kensington, PA 15068

Talk-in on 146.64 PL 131.8 Admission \$5

More Information at <http://www.skyviewradio.net>

Uniontown ARC 71st Annual Gabfest

Saturday, August 8th, 2020, 8:00 AM—???

NEW DATE!!

Vendor Setup prior to 8:00 AM

W3PIE Clubhouse

433 Old Pittsburgh Road, Uniontown PA 15401

Talk-in on 147.045 PL 131.8 Free Admission

More Information at <http://www.w3pie.org>



Butler County ARA Swapfest 2020

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

Grounds Open at 6 AM for Vendors & Tailgaters

Unionville Volunteer Fire Department

102 Mahood Road (at Route 8 North), Butler, PA 16001

Talk-in on 147.360 PL 131.8 Admission \$5

More Information at <http://www.w3udx.org>





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?



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

