



# Wireless Association of South Hills



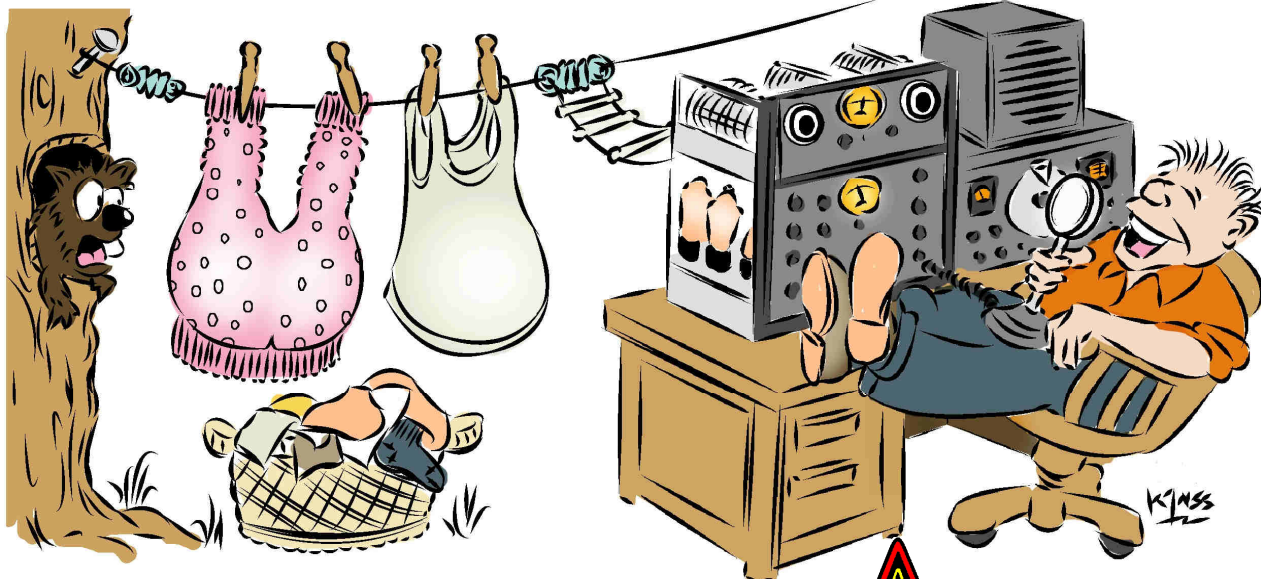
N3SH WA3SH NP2SH/B

[www.n3sh.org](http://www.n3sh.org)





# Wireless Association of South Hills



## WASHRAG™



VOLUME 26 Issue 02

FEBRUARY 2024

### Next Monthly Meeting: Thursday, February 1<sup>st</sup>, 2024

The next scheduled meeting of the WIRELESS ASSOCIATION OF SOUTH HILLS, INC. will be on **Thursday, February 1<sup>st</sup>, 2024**, starting at 7 PM, at the **ST. CLAIR HEALTH OUTPATIENT CENTER VILLAGE SQUARE CONFERENCE ROOM**, 2000 Oxford Drive, Bethel Park PA 15102, adjacent to Village Square Mall, across from South Hills Village Mall, just off US Route 19.

Topics Include: **WASHFest 2024**, Field Day and other 2024 Plans, and much more.

See you there!

Cover: A couple of photos from **WASHFest 2023**. Can't wait to see what's coming up this year! (Soon enough!)

Photo courtesy of and © Copyright 2023, 2024 Ron Notarius W3WN

## WASH 2024 OFFICERS

### EXECUTIVE COMMITTEE:

President	Tom Galante KB3NIX
VP / Secretary	Nathan Suehr KC3GMM
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 KC3MLC
Webmaster	Curtis Turner KB3CMT
Quartermaster	Harold Rosenberger K3HCR
WASH FM Net Manager	Chuck Bihun KC3ELA
WASHFest 2024 Committee	Ron Telek W3LE, Chair
	Bill Hill W3WH
Activities & Operating Events	Glen Roberts KE7FD
Ways & Means	Rick Bell KB3IAC
WASH 2M Contest Chair	Carol Danko KB3GMN
Field Day 2024 Coordinators	Glen Roberts KE7FD
	Frank Bobro N3FB
	Bill Hill W3WH (emeritus)
	Larry Comden K3VX (emeritus)

### CLUB-AFFILIATED REPEATERS, BEACONS, & DIGIPEATERS:

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

**N3SH / WA3SH WASHNet**, the weekly on-air net of WASH, meets every **Monday** Night, 8:00 PM ET, on the 146.955 & 443.650 repeaters. All radio amateurs, WASH members or not, are welcome to join in!

## THE LEGAL STUFF

"The WASHRag™" (formerly "The Mariner™") is the Official Newsletter of the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC. (WASH)**, a 501.C.3 not for profit organization.

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Editor & Publisher: Ron Notarius W3WN

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e-mail: [newsletter@n3sh.org](mailto:newsletter@n3sh.org) or [w3wn@arrl.net](mailto:w3wn@arrl.net)

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The **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.** was founded on August 23<sup>rd</sup>, 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 February 25<sup>th</sup>

The Next WASH VE exam session will be on **Sunday, February 25<sup>th</sup>, 2023, 10:00 AM, at Home Economics Building, South Park,** 3735 Buffalo Drive, South Park Township, during **WASHFest 2024**. Talk-in on the 146.955 MHz repeater. All examiners are ARRL VEC affiliated.

**Pre-registration is encouraged. Walk-ins taken on a space/time available basis.**

If you plan on attending the test session, please contact VE Team Liason Grant Olson KC3MLC: [kgo@grant-olson.net](mailto:kgo@grant-olson.net)

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

Note that the FCC now only accepts FRNs as identification numbers. If you don't have an FRN, please create one in advance at <https://apps.fcc.gov/coresWeb/publicHome.doc>

Future test dates: To Be Determined

## Tom's Tales



A few words...

Although February is a dreary month in Pittsburgh, it is our clubs time to shine with our annual **WASHFest**!

I would ask that all of you try to make the meeting on Thursday since it will be our final meeting prior to the big event. I wanted to let you know that Christine Rial N3LRG, the President of the Steel City ARC, will be at our meeting to talk about how we can collaborate with them on some of their upcoming future activities.

In addition, I would like all of you to think about how we can effectively improve our communication within the club, this will be an agenda item for discussion.

Thanks!

— 73, Tom Galante KB3NIX  
President, WIRELESS ASSOCIATION OF SOUTH HILLS, Inc.  
N3SH / WA3SH / NP2SH

February 8<sup>th</sup>, 2024, marks the 61<sup>st</sup> anniversary of the YL System, now known as the YL International Single Side-band System (YLISB), founded by Vera Mayree Tallman K4ICA (SK), in 1963.

Tallman received her first license in 1956 and later earned her General-class license. Though the system's name includes "YL," the amateur radio term for "young lady," membership is open to both women and men. YLISB is a community of radio amateurs who provide support, service, and fellowship to one another and to the rest of the amateur radio community. YLISB also encourages amateur radio skill development through both personal and system-wide support programs.

The YLISB operates on 14.332 MHz every day of the year.

On February 8<sup>th</sup> - 11<sup>th</sup>, from 1323Z to 1323Z, special event station K4ICA will operate on 14.240 - 14.340 MHz and 7.230 - 7.260 MHz to commemorate the system's 61<sup>st</sup> anniversary.

To receive a QSL card, send a letter via self-addressed stamped envelope to John Ellis W5PDW

## Reminder: The February WASH Meeting location will be at The St. Clair Health Outpatient Center Village Square in Bethel Park! Map and directions are on Page 16. Meeting begins at 7 PM.

January 27<sup>th</sup> sure snuck up on us... end of the month before we knew it, and before someone (ahem) remembered to send a reminder out on the reflector... so all things considered, we still had a decent gathering of the **WASH BREAKFAST GANG** for our first 2024 meeting, at the **McMURRAY EAT'N PARK, 3380 WASHINGTON ROAD**. Awake and in need of caffeine (or something) this month were N3FB, KB3GMU, K3SGT & Barb, KB3NIX, N3IDH and W3WN. Morning topics covered 6 feet of snow in OR for NØVLR, whatever happened with Ten Tec?, the daily Wellness Net on 75, enjoying the First Fish Sandwich of the 2024 Season, the food fair at the Greek Orthodox Church, WB4GCS in VA this weekend, the first grocery shopping trip after surgery, Pa QSO Party Results are out, Team N3ZK setting a new M/M record for Elk County AND #1 Portable Op (congratulations to all!), Cheeseburgers in Paradise (the song and the burger joints), the new Kenwood TH-D75A HT, the death of AM Stereo (was KDKA-AM the last holdout?), new digital broadcast TV modes, enjoying the new Point Park Pittsburgh Playhouse downtown (and remembering the old one in Oakland), the Elecraft KH-1, "Weird" antenna projects (look up the Lattin 5 Band antenna... it's patented), Siri in Argument Mode... and a heck of a lot more.

Hope to see you at the next gathering, on Saturday, January 24<sup>th</sup>, at the **SOUTH PARK EAT'N PARK, 5220 LIBRARY ROAD**, just before heading into South Park for **WASHFest 2024** Setup. Mark your calendars, and hope to see you there!

As this should be going out prior to the entry deadline, don't forget to send in your logs and entry form for the **2024 WASH 2 Meter Simplex Contest. Deadline is February 1<sup>st</sup>**. PLEASE remember to send it to Glen KE7FD... some entries have gone to previous contest chairs at other addresses, and while Glen will get them eventually... why cause a delay?

We're just about a month out from **WASHFest 2024** as we send this out. There's no two ways about it... this is our big event for the year, as well as the first WPA Hamfest of the year. If you intend to have or share a table this year, and haven't already communicated with Ron W3LE, don't put it off... now is the time. On the same note, now is the time to start getting in touch with him and let him know what you can do to lend a hand. This is the biggest single event the Club runs every year, as well as our main fundraiser. If everyone pitches in a little, a lot gets done and no one gets burdened with the bulk of the work. But we need everyone to lend a hand.

And a reminder, on that note, from VE Chair Grant KC3MLC, that **our next VE Session will be at WASHFest 2024** on Sunday, February 25<sup>th</sup>, at 10 AM. Grant adds **"We request that people wishing to take an exam notify us ahead of time so that we can prepare in advance. On exam day you will need:**

1. **The test fee of \$15. It is strongly preferred that users provide a check made out to ARRL/VEC. We cannot guarantee the availability of change for cash payments.**
2. **A valid legal photo ID**
3. **Your FRN number from the FCC. If you do not have an FRN you should create one in advance at <https://apps.fcc.gov/coresWeb/publicHome.do>. SOCIAL SECURITY NUMBERS ARE NOT ACCEPTED AS ALTERNATE ID NUMBERS, YOU MUST HAVE A VALID FRN.**
4. **For people upgrading an existing license please provide either a copy of your license or your CSCE as proof of existing status. People testing for Technician Licenses will not have an existing license.**
5. **Optionally, a calculator for any questions that require it. Smart Phones CAN NOT be used as calculators.**

Once again, please RSVP with your name and license class you expect to test for in advance.

Any questions or comments can be directed to the VE Liason Grant Olson, KC3MLC, at [kgo@grant-olson.net](mailto:kgo@grant-olson.net)

**Join WASH or Renew your Membership Today! Membership Application on Page 15**



## Minutes, January 4<sup>th</sup> Meeting

Nathan Suehr KC3GMM, Vice President / Secretary, WASH

Call to Order: 19:02.

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

Message from Tom (KB3NIX) to the group: "Thank you!" He is honored to be a member and President.

Roll Call. 14 Members, 0 Guests Present

### Committee Reports:

#### Treasurer:

- \* Financial report provided by Mark (N3RDV) and read by Nathan (KC3GMM). Motion to accept financial report by Frank (N3FB) and second by Eric (K3SGT). Voted and carried.
- \* Nathan (KC3GMM) - Per Mark (N3RDV): The club PO box is due for renewal. Motion to renew PO box by Ron (W3WN) with second by Harold (K3HCR). Voted and carried.

**Secretary** Nathan (KC3GMM) December meeting minutes published in January newsletter. No corrections to the minutes. Motion to accept minutes as published by Frank (N3FB) with second by Bill (WA3VSS). Voted and carried.

**Repeaters:** Frank (N3FB) - Repeating. Last month he saw an issue with repeater controller. Reprogramming seems to have resolved the issue. He has reached out to try and get access to the 2m repeater site. Would like to get access and check on it. Will make arrangements to visit N3SH 70cm repeater site as well.

**WASHnet:** Nathan (KC3GMM) Good participation.

**Thursday night tech talk:** Glen (KE7FD) –

- \* Tweaked the scoring for the contest rules and sent out an updated copy to the reflector. Next tech talk will be on fourth Thursday this month.
- \* Tom (KB3NIX) - Do you have a topic?
- \* Glen (KE7FD) - Will check and see.

**Public service:** Tom (KB3NIX) for Mike (WA3PYU): Rabid Raccoon race coming up. New location this year with operators inside.

**Newsletter:** Ron (W3WN) – Out. Due to technical issues, had trouble getting access to the mailing list. Had workaround and is now merging the folks into the main list now.

Tom (KB3NIX) - His copy bounced but he was able to get it fixed.

**VE:** Grant (KC3MLC): Has been busy at work and not been able to coordinate a session yet. There will be a testing session at the WASHFest. Will notify ARRL and send out announcements on the mailing list.

**Ways & means:** Carol (KB3GMN) – No report.

**Contests:** Larry (K3VX):

- \* Nathan (KC3GMM) - N3SH 2m contest coming up.
- \* Ron (W3WN) - CQ 160 SSB Contest coming up at the end of the month. CW contest the same weekend as WASHFest. Breezeshooters groundwave contest.

**WASHFest 2024:** No report. Tom (KB3NIX) will reach out to Ron. Next meeting is February 1st which is the last meeting before WASHFest.

### New business:

- \* Bill (WA3VSS) - Paid for continued copies of QST magazine but did not receive January copy.
- \* \*Further discussion about ARRL membership renewal and the status of the organization\*
- \* Ron (W3WN) - If anyone has an opinion that they would like to share in the newsletter, he will be happy to publish it.

### Old business:

- \* Tom (KB3NIX) - Would like to look into the folks that have trouble hitting the repeater/checking into the net. Would like to see how many folks there are and if they are club members and push them toward Glen's offer of equipment.
- \* Glen (KE7FD) - Nobody has taken him up on his offer. Does the net control schedule need updated?
- \* Tom (KB3NIX) - Will reach out to Chuck and see if he's still able to.
- \* Eric (K3SGT) - What is involved in managing the net control schedule?
- \* \*Further discussion about the WASHNet\*

Continued on Page 7

## WASH Spotlight: N3FB/KB3GMU

From the  
2021  
Uniontown  
Gabfest,  
Frank N3FB  
& Lori  
KB3GMU

(See what happens when we need pictures? We start mining the archives. Well, it's either that, or Finnley...)



Photo courtesy of and © Copyright 2021, 2024 Ron Notarius W3WN

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

Submissions for the Spotlight should be sent to Ron W3WN at [newsletter at n3sh dot org](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

2024 AC3WM AC4KU AE3DL K3HCR K3OCT K3SEM K3SGT K3VX K6DWR KA3VXM KB3BYA KB3GMN KB3GMU KB3JHR KB3GUZ KB3NIX KB3YCX KC3ELA KC3GMM KC3MLC KC3VQR	KC4WTT KE7FD N3DFK N3FB N3RDV N3UE NB3C NL7XM W3WN W8LEV WA2YEZ WA3PYU WA3VSS WB4GCS Charmel Spirk	KB1CKF KB3CMT KB3IAC KB3IVX KC3RGV KC3TEU KC3UUK N3IDH N3JSF N3KFD N3SBF N8NEU NY9H W3DTP W3LE W3WH	WASH FL KA3UPY/M WASH NE N0PEU WASH OH N8DPW WASH OR KB3NVL KB3NVM N0VLR WASH SC N8NEU	WASH TN K3OL KE3XB N3YPB WASH TX NB3C K3LGM KB3IJX Jane Wagner WASH VI NP2JF	<b>Silent Keys</b> AB3KA AB3ED AC4KU AD3Q K3EED K3LIE KA3NMG KB3ENX KB3FNM KB3FQT KB3JHQ N3BPB N3CZZ N3FZ N3HKQ N3KEH N3OBD N3RNX N3SKR N3SRC N3ZEL N3XFE W3ZLK W4ZE WA3JPP
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If your call should be listed here & isn't, please contact Mark N3RDV

Through January 28<sup>th</sup>, 2024

List compiled by

Mark Stabryla N3RDV, Vice President/Treasurer

# 2024 WASH Upcoming Events Calendar

## Club Meetings & Other Significant Events — Subject to Change

February 1 <sup>st</sup>	WASH Meeting	St. Clair Health Outpatient Center Village Square Conference Room, 2000 Oxford Drive
February 10 <sup>th</sup>	Allegheny County ARES Meeting	Red Cross Building, 2701 Liberty Avenue (Strip District), 9:30 AM
February 15 <sup>th</sup>	WASH Third Thursday Tech Talk	146.955, 443.650 and 442.550 MHz 08:00 PM Eastern
February 17 <sup>th</sup> — 18 <sup>th</sup>	ARRL DX Contest Phone (CW)	<a href="https://www.arrl.org/arrl-dx">https://www.arrl.org/arrl-dx</a>
February 24 <sup>th</sup>	Breezeshooters Groundwave CW	8 PM—11 PM EST
February 25 <sup>th</sup>	WASHFest 2024	Home Economics Building, 3735 Buffalo Drive, South Park
February 25 <sup>th</sup>	WASH VE Exams @ WASHFest	
March 2 <sup>nd</sup> — 3 <sup>rd</sup>	ARRL DX Contest SSB	<a href="https://www.arrl.org/arrl-dx">https://www.arrl.org/arrl-dx</a>
March 7 <sup>th</sup>	WASH Meeting & Pizza Night	St. Clair Health Outpatient Center Village Square Conference Room, 2000 Oxford Drive
March 9 <sup>th</sup>	WEARS-FEST 2024	Greensburg Masonic Lodge, 349 Donohoe Road, Greensburg PA
March 9 <sup>th</sup>	Breezeshooters Groundwave Phone	8 PM—11 PM EST
March 16 <sup>th</sup>	Breezeshooters Groundwave Digital	8 PM—11 PM EST
March 21 <sup>st</sup>	WASH Third Thursday Tech Talk	146.955, 443.650 and 442.550 MHz 08:00 PM Eastern
March 30 <sup>th</sup> — 31 <sup>st</sup>	CQ WPX Contest SSB	<a href="https://cqwpvx.com/">https://cqwpvx.com/</a>
April 4 <sup>th</sup>	WASH Meeting	St. Clair Health Outpatient Center Village Square Conference Room, 2000 Oxford Drive
April 7 <sup>th</sup>	Two Rivers ARC 52 <sup>nd</sup> Hamfest	Elizabeth VFD Bingo Hall, 101 South 1 <sup>st</sup> Avenue, Elizabeth PA 15037
April 18 <sup>th</sup>	WASH Third Thursday Tech Talk	146.955, 443.650 and 442.550 MHz 08:00 PM Eastern
May 2 <sup>nd</sup>	WASH Meeting	St. Clair Health Outpatient Center Village Square Conference Room, 2000 Oxford Drive
May 17 <sup>th</sup> — 19 <sup>th</sup>	Hamvention 2024	Greene County Fair & Expo Center, 210 Fairground Road, Xenia OH 45385



# ***"Seen" at the January Meeting***

Photos courtesy of and © Copyright  
2024 Ron Notarius W3WN





# 24<sup>th</sup> Annual WASH Two Meter Contest



Remember, the entry deadline is February 1st. We should have the results in the March newsletter!

A reminder from Glen KE7FD that logs must be submitted to him ( **\*\* NEW Address for 2024 \*\*** WASH 2 Meter Simplex Contest , c/o Glen Roberts, 910 Worthington Avenue, Clairton, PA 15025).

Logs sent to a previous contest chair's address may be delayed or not received in time!

Photos:

Left: "Mr. Railroad Man" Chuck KC3ELA operating mobile during the contest. Photo courtesy of and © Copyright 2024 Charnel Spirk

Right: Gary KB3YCX in his shack, post-contest, with his logs right behind him. Photo courtesy of and © Copyright 2024 Gary Robbins KB3YCX

## ARISS Contact Opportunity

Dave Jordan AA4KN

ARISS PR

Orlando, FL, January 8<sup>th</sup>, 2024 — The Amateur Radio on the International Space Station (ARISS) Program is seeking formal and informal education institutions and organizations, individually or working together, to host an Amateur Radio contact with a crew member onboard the ISS. ARISS anticipates that the contacts would be held between July 1<sup>st</sup>, 2024 and December 31<sup>st</sup>, 2024. Crew scheduling and ISS orbits will determine exact contact dates. To maximize these radio contact opportunities, ARISS is looking for organizations that will draw large numbers of participants and integrate the contact into a well-developed education plan.

The deadline to submit a proposal is February 29<sup>th</sup>, 2024. Proposal information and more details such as expectations, proposal guidelines and the proposal form can be found at [www.ariss.org](http://www.ariss.org).

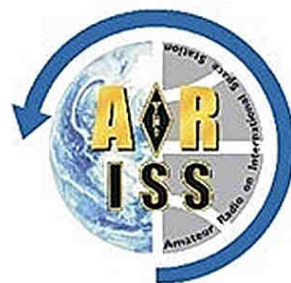
**The Opportunity:** Crew members aboard the International Space Station will participate in scheduled ARISS amateur radio contacts. These radio contacts are approximately 10 minutes in length and allow students to interact with the astronauts through a question-and-answer session.

An ARISS contact is a voice communication opportunity via amateur radio between astronauts and cosmonauts aboard the space station and classrooms and communities. ARISS contacts afford education audiences the opportunity to learn firsthand from astronauts what it is like to live and work in space and to learn about space research conducted on the ISS. Students also will have an opportunity to learn about satellite communication, wireless technology, and radio science. Because of the nature of human spaceflight and the complexity of scheduling activities aboard the ISS, organizations must demonstrate flexibility to accommodate changes in dates and times of the radio contact.

Amateur radio organizations around the world with the support of NASA and space agencies in Russia, Canada, Japan and Europe present educational organizations with this opportunity. The ham radio organizations' volunteer efforts provide the equipment and operational support to enable communication between crew on the ISS and students around the world using amateur radio.

Please direct any questions to [education@ariss-usa.org](mailto:education@ariss-usa.org).

**About ARISS:** Amateur Radio on the International Space Station (ARISS) is a cooperative venture of international amateur radio societies and the space agencies that support the International Space Station (ISS). In the United States, sponsors are the American Radio Relay League (ARRL), Amateur Radio Digital Communications (ARDC), Radio Amateur Satellite Corporation (AMSAT), NASA's Space Communications and Navigation program (SCaN) and the ISS National Lab—Space Station Explorers. The primary goal of ARISS is to promote exploration of science, technology, engineering, the arts, and mathematics topics. ARISS does this by organizing scheduled contacts via amateur radio between crew members aboard the ISS and students. Before and during these radio contacts, students, educators, parents, and communities take part in hands-on learning activities tied to space, space technologies, and amateur radio. For more information, see [www.ariss.org](http://www.ariss.org). Media Contact: Dave Jordan AA4KN, ARISS PR



## Meeting Minutes

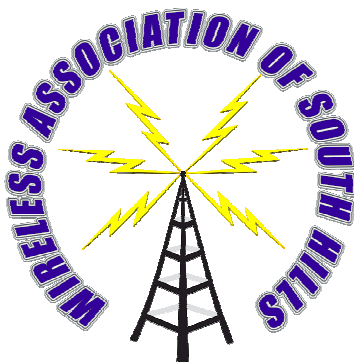
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Page 4

### Good of the order:

- \* Nathan (KC3GMM) - Breezeshooters NYE event contacts are valid regardless of whether they were made on NYE or New Years Day.
- \* Glen (KE7FD) - Any further discussion about digital repeater? Working on getting on the air with digital radio.
- \* Tom (KB3NIX) - Still talking to Jim (WB4GCS) about Echolink. Will talk to Mark (KB3LYB) about Echolink when time permits.

**Motion to adjourn** by Harold (K3HCR) with second by Nathan (KC3GMM). Voted and carried.

**Adjourned** at 7:50 PM 1/4/2024



# ***Sherlock Investigates Radio Failures***

221B Baker Street, London, January 7<sup>th</sup>, 2024 – If you don't ask yourself, "why do things fail?" You are missing the most exciting part of your electronic hobby. When you have a piece of equipment that fails, do you just throw it away?

Sherlock

Analysis of the failed item can be the most interesting part of your electronic experience. It can lead to new designs or modifications to improve your equipment. Most of our current electronic equipment is designed to be replaced at the Subassembly or Printed Wiring Board Assembly level, but that doesn't prevent you from trying to find the root cause of a failure at the piece part level.

Sometimes your investigation will lead to a simpler repair action that will save the subassembly or unit. Design and construction of Electronic Components can be studied on Wikipedia at [http://en.wikipedia.org/wiki/Electronic\\_component](http://en.wikipedia.org/wiki/Electronic_component). It has a large data base on how these components work.

**Sherlock's Science of Deduction:** It is keen to apply the precepts of advanced detective procedures in these matters:

- \* "It is a capital mistake to theorize before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts." (A Scandal in Bohemia.)
- \* "When you have eliminated the impossible, whatever remains, however improbable, must be the truth." S.H. (The Sign of Four, Ch. 6.)
- \* "The world is full of obvious things which nobody by any chance ever observes," S.H.

**Statement of the Cases:** I have left out all the flummery and verbose descriptions that Dr. Watson would have added if he were recording these stories, so you will have to imagine your own settings. However some of these stories did begin "On a Dark and Stormy Night."

- \* "Many of these singular happenings have never before until now been fully dealt with in any public print," S.H.

## **The Episode of the 'Black Widow' Transistor:**

One of the most devious failures ever encountered involved the 'Black Widow' transistor in a push pull switching power supply. Female Black Widows have been known to eat their mates. The male spiders still have not figured this out yet.

This failure occurred on a TO39 power transistor (2N3553) that had a big copper slug inside the case that was crimped in place. The case had three dimples on the side of the case that grabbed the internal copper header.

In this singular case one transistor in the circuit burned up and shorted, it looked like secondary avalanche breakdown, collector to emitter short. There was significant melting of the die. The transistor was replaced and after a few temperature cycles the newly installed transistor failed again in the same spot. Ahaa! - The spider got another one.

The root cause of the failure was traced to the 'good' transistor in the push pull pair. It was opening up and latching the other one 'on'. The crimp on the header can was the only electrical connection to the collector and when it opened up the other transistor was turned 'on' with full DC current that just melted it. So remember in any push pull circuit failure the 'good' part might really be the 'bad' part, however improbable it may seem.

## **The Midnight Flight of Denny Dendrite:**

It was a dark and stormy night, really, when the intrepid Denny Dendrite electronic sleuth made his way carrying a dendrite to a secret laboratory in Washington D.C. for analysis. Arriving at 3am, after a transcontinental flight in the winter, a dozen government investigators stood ready at their SEM and Auger equipment's.

The defect had just been confirmed on an integrated circuit that had used leaded (Pb) glass sealing material. The surface of the sealing glass had provided a platform for pure lead dendrites to grow from one IC lead to another under high impedance electrification.

These are easily visible using a microscope. Indeed, many Youtube videos show the growth progress. See [https://www.youtube.com/watch?v=COMTYzqe\\_XE](https://www.youtube.com/watch?v=COMTYzqe_XE) for an excellent example.

These types of failures are frequently induced by taking a unit from a dry, cold environment into a warm humid environment causing the unit to go through the dew point. When that happens, water condenses out of the air and can cause dendrites. There is usually enough carbon dioxide (CO2) in the air or acidic residue on a circuit board to start a dendrite growing. So do not apply power to a unit that has gone through or is going through the dew point until it is completely dry. Remove any memory battery back-up battery or it will cause new dendrites.

The use of 'Freeze Mist' for trouble shooting is highly discouraged because this causes frost to build up on the components and they all get wet as they come back through the dew point. Obviously it can cause dendrites that will mask the clue being investigated. Elementary isn't it? If you must lower the temperature of a part, use an ice cube in a plastic bag.

## **The Intermittent Green Radio:**

This radio performed perfectly for many years, but it was infrequently used. After field testing in hot weather, the unit would fail after a few hours of operation. The radio has many internal protection circuits so it just shut down and no internal damage was found. The radio would work fine the next day.

Trouble-shooting began at the power supply circuit and using a heat gun, the unit could be made to fail quickly when it was hot. Switching to a soldering iron to gently heat the components, the failure was isolated to a Tantalum Capacitor. The capacitor was physically reversed in its circuit and after replacement there was no more intermittent high temperature failure. The part had simply been placed in the unit with reversed polarity. Tantalum capacitors typically can operate for many hours in the reversed direction, but will eventually short out.

The printed circuit board did not have any polarity markings on it and it escaped visual inspections. This expensive radio was repaired for the cost of a two dollar part.

Another similar failure occurred in a similar radio that was caused by an over-heating TO-220 Transistor. The transistor was mounted with small insulated plastic bushing to keep the mounting screw from shorting to the chassis. During assembly the bushing/washer became smashed under the transistor body (See Photo) and this prevented the TO-220 transistor from fully seating on its heat sink. The transistor was not able to dissipate the heat on its case and that caused the radio power supply to shut down. Reseating the transistor flush onto the heat sink fixed the unit.

This episode was further detailed in my other monogram "Death on the Trail".

## **The 3.5% Solution:**

It was a warm sunny day on the Island of St. Lucia when a rogue wave crashed over the rocks and drenched the HF operating site. The main radio was drenched and was inoperative. You could almost hear the dendrites growing. The famous (Old Goat) operator, rushed the radio to a clean water source to rinse it and flush out the salt water. This might work on your new smart phone too.

Ocean salt water is about 3.5% saline. After drying the radio, fortunately it began to work after a few days. The normal lab procedure would be to wash it with distilled water, then an alcohol rinse followed by a vacuum bake. If a vacuum bake is not possible the radio could be dried in an oven with MIL-D-3464 desiccant or a bag of rice.

Continued on  
Page 9





# Sherlock

Continued from Page 8

## The Curse of the Tin Whiskers:

If you have a good microscope, with a magnification of at least 15X, you can find these tin whiskers in your old parts bin. Just look for an old USECO stand-off. These old insulating turret stand offs where tin plated and have over the years grown tin whiskers. You can see them growing off the top of the tin plated terminal. They are extremely small (Perhaps 1/20 the diameter of a human hair but up to ¼ inch long) they are straight and shiny. If you catch them in light reflection, the whiskers are easy to see. There are several Tin Whisker videos on You Tube: <http://tinyurl.com/o8whamx>. You can find them on Wikipedia: [http://en.wikipedia.org/wiki/Tin\\_Whiskers](http://en.wikipedia.org/wiki/Tin_Whiskers) and at <https://nepp.nasa.gov/whisker/>.

The whiskers can cause shorts and Multipactor discharges. Using parts that have a small percentage of lead mixed with tin eliminates this problem. It occurs on silver and zinc plated parts also.

## The Scintillation of a Tantalum Capacitor:

Have you ever seen the 'scintillation' of a Tantalum capacitor?

You can be 'Sherlokian' yourself and find these defects and see what makes these things fail.

Wikipedia is a great place to learn about the construction, application and failure modes of components. Check out: [http://en.wikipedia.org/wiki/Tantalum\\_capacitor](http://en.wikipedia.org/wiki/Tantalum_capacitor) for a briefing on tantalum capacitors.

You can see the capacitor scintillation on a transistor curve tracer. Just slowly raise the voltage up on the capacitor to three times over its rating, with about 1000 ohms in series and it will scintillate right before your eyes. The Manganese dioxide (MnO<sub>2</sub>) melts down and plugs the Tantalum (Ta) dielectric performing it's well known 'Self Healing' effect. If you don't have enough series resistance in your circuit this capacitor can permanently short or explode.

If you don't have a curve tracer you can see pictures at: <http://www.kemet.com/Lists/TechnicalArticles/Attachments/90/2006%20CARTS%20Scintillation.pdf>

Sometimes the capacitor manufacturer puts the wrong tantalum slug in the case or marks the case with the wrong rated voltage. You can strip the Manganese Dioxide (MnO<sub>2</sub>) off of a failed slug and tell by the color of the slug what the real tantalum oxide thickness is and what its real voltage rating should be.

One of the best ways to insure that your replacement tantalum capacitor doesn't fail again, without redesigning the circuit to make it more reliable, is to 'surge test' the capacitor.

There are dozens of papers on this technique at the NASA Electronic Parts and Packaging (NEPP) Program Website: <https://nepp.nasa.gov/DocUploads/1701FE5C-6D72-4E40-A5A25FDC7F1F670B/Effect%20of%20Inductance%20NEPP%20report.pdf>

## The Electrostatic Discharge League:

There isn't enough room in this monograph to cover the many ESD failure analysis techniques. A curve tracer is all you need to see MOS FET input/gate damage. Go to the Electro Static Discharge Association web site for more training information. <https://www.esda.org/esd-overview/> The main ESD Rules are: Keep your wrist strap on (your body grounded) and your soldering iron grounded. Remember "The contact and separation of unlike materials causes static".

## The Case of the Open Case:

Cold temperature failures of the venerable (1975-1980) JANTX2N2222A and 2N2907 transistors led to the discovery of this major manufacturing defect. One qualified manufacturer was making the TO-18 headers by filling the bottom with a glass sealing powder. You probably have some in your junk box. The collector lead connection to the header and thus to the transistor die was a pressure point contact (See Photo 1) that was held fast by the contracting sealing glass during formation of the seal.

The reliable construction design of other manufacturers had a silver pellet on the tip of the collector wire (See Photo 2) and it made a reliable metallurgical 'nail head' weld to the header during the glass seal operation. This problem was also found on ground leads on TO-5 cases Also. When part replacement was not an option, nickel wire was welded to the cases and soldered to ground.

## The Cracked Solder Joint Mystery:

Solder joints are our friends but they can be defective if they are 'cold solder' joints or if they are mechanically pulled apart. Any part that is fixed/mounted on one side of a PCBA and has leads that go through and are soldered on the other side are candidates for solder fracture.

Long periods of temperature cycling will also cause solder fractures. Don't leave your gear out in your unheated shack over the winter. These fractures cause open circuits and can be seen with a microscope. Many solder joint failures can be induced by subjecting the item to very cold temperatures for a long time and **then applying circuit power while they are still cold.**

## Multiple Cases, Same Solution:

Many cases have the same defect at the root cause. This can provide many benefits to the electronic sleuth making detection and solution easier.

Many TS-440 radios have been found with similar symptoms. They frequently loose VCO lock on 28 MHz and just display dots. This is caused by a materials defect in the VCO cans. The manufacturer used foam potting material to keep the components stable for mobile operation. This foam fooled a few NASA Space engineers too. The foam reverts into conductive sticky goop after 10 or 20 years in humid environments. The conductive foam shorts out all the high impedance circuits. The repair is to simply remove the goop and clean the VCO cans out. It is called 'Reversion' but it is really 'Degradation'.

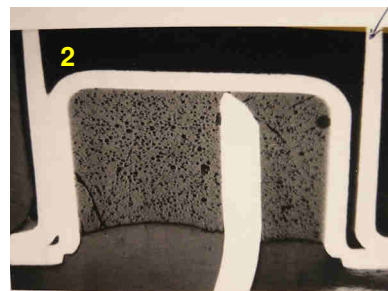
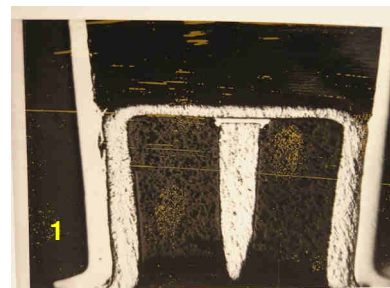
Many foreign engineers use polarized aluminum capacitors as audio coupling capacitors. Audio is AC and the negative part of the audio voltage can de-plate the capacitor dielectric causing audio distortion. The symptom is usually reported as "Transmitter works good but receiver has distorted audio". I have purchased several radios with this same symptom for junk prices and by changing one capacitor, I now have a good radio. These radios usually come out of Packet systems where the squelch is left off and the audio runs at maximum around the clock. This design technique works for a radio that is always squelched and used infrequently, but used in full time service they may only last 10 years.

## Elementary Equipment needed for these Analyses:

Only the most basic equipment is needed for these analyses, but it should include: Multimeter, curve tracer, microscope or a small magnifying glass and a small hacksaw.

## Danger:

- \* Some components are made of hazardous materials.
- \* Don't grind up any Beryllium Oxide (BeO) which is white looking ceramic. This material is used on many power semiconductors.
- \* Some capacitors have carcinogenic or acid electrolyte.



# Allegheny County ARES Meeting

Bob Mente NU3Q  
Emergency Coordinator  
Allegheny County ARES

Carnegie, PA, January 27<sup>th</sup>, 2024 – The next Allegheny County ARES meeting will be on 2/10 at the Red Cross building located at 2801 Liberty Avenue in the Strip District. Meeting will be at 9:30 am.

I will discuss current activities within the Western PA Skywarn group and upcoming public service events.

We will start developing plans for activities in 2024 as follows:

- ◆ Learn to solder
- ◆ Kit Building
- ◆ Fox Hunt
- ◆ POTA
- ◆ Suggestions for other activities

Parking will be in the Red Cross lot on Penn Avenue between 28th and 29th Street. The gate will be open. To access the lot, go up Liberty and make a left on 29th Street. Make a left on Penn and stay to the left. The entrance will be about 100 feet on your left.



## ARRL Board Approves Free Membership for Students 21 or Younger, New Vice Presidents Elected

American  
Radio  
Relay  
League

Newington, CT, January 25<sup>th</sup>, 2024 – The ARRL Board of Directors met in Windsor, Connecticut, on January 19<sup>th</sup> – 20<sup>th</sup>, 2024, for its Annual Meeting.

ARRL President Rick Roderick K5UR, presided over the meeting, and the Board welcomed Vice Director of the ARRL Great Lakes Division Roy Hook W8REH, as a newly elected member to the Board.

The Board authorized a new, free ARRL membership for students. For decades, ARRL has offered a reduced dues rate for young hams, currently priced at \$30 per year. At this meeting, the Board established a new option for a no-cost Associate membership for full-time students aged 21 and younger.

The Board re-elected ARRL President Rick Roderick K5UR, to a fifth 2-year term.

The Board also elected Director of the ARRL Pacific Division Kristen McIntyre K6WX, to be First Vice President, succeeding Michael Raisbeck K1TWF.

Director of the ARRL Northwestern Division Mike Ritz W7VO was elected Second Vice President, succeeding Bob Vallio W6RGG. ARRL Vice President of International Affairs Rod Stafford W6ROD, was re-elected. The elections of McIntyre and Ritz to the Vice President positions mean that incumbent Vice Directors Anthony Marcin W7XM (Pacific Division), and Mark Tharp KB7HDX (Northwestern Division), will succeed as Division Directors, creating vacancies for Vice Director in those Divisions, which will be filled by appointment.

The complete minutes of the 2024 Annual Meeting of the ARRL Board of Directors will be available soon on the ARRL website. Read more about the Board's actions in the [ARRL Member Bulletin](#).

The next meeting of the ARRL Board of Directors is scheduled for July 19 - 20, 2024.

ARRL is governed by an all-volunteer Board of Directors. Elections are held for five of the 15 ARRL Divisions each year, for terms of 3 years.



## Sherlock

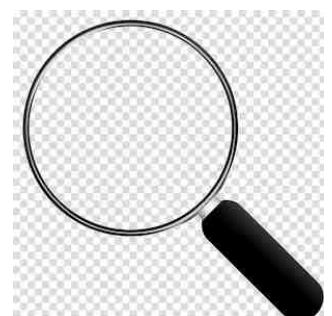
Continued from Page 9

- \* If it smells bad throw it out.
- \* Don't mess with mercury relays or 866 mercury vapor tubes.
- \* Don't dissect radioactive sources.

### The Epilogue and Additional Clues:

- + Wikipedia [http://en.wikipedia.org/wiki/Electronic\\_component](http://en.wikipedia.org/wiki/Electronic_component)
- + The Jim Williams Papers, EDN 1991.
- + Trouble Shooting Analog Circuits, Robert A. Pease, National Semiconductor Corp, 1989.
- + IEEE Reliability Physics Proceedings, Read all you can find.
- + International Symposium for Testing and Failure Analysis (ISTFA) Proceedings, Read all you can find.
- + MIL-STD 1580A Destructive Physical Analysis
- + The Adventures of Sherlock Holmes, Sir A. Conan Doyle
- + "I can't give you a more detailed account of these cases without referring to my notes. I do not know anything essential that has been left unexplained." S. H.

The game is afoot.





# ARRL Now Publisher for Gordon West

American Radio  
Relay League

Newington, CT, January 17<sup>th</sup>, 2024 – ARRL The National Association for Amateur Radio® has become the new publisher of the Amateur Radio License Preparation books and related resources authored by Gordon West WB6NOA. Gordon West's popular books, classes, and audio courses have been a mainstay of amateur radio licensing for over 40 years. Generations of hams have learned from 'Gordo', and now the impact of his knowledge and experience will continue with the reach and resources of ARRL.

Current editions of Gordon West's popular license prep books will be available from ARRL and ARRL publication dealers soon, including:

- *Technician Class FCC Element 2 Amateur Radio License Preparation*, 10<sup>th</sup> Edition 2022-2026
- *General Class FCC Element 3 Amateur Radio License Preparation*, 11<sup>th</sup> Edition 2023-2027
- *Extra Class FCC Element 4 Amateur Radio License Preparation*, 8<sup>th</sup> Edition 2020-2024

The books, including future editions, will continue to be authored by Gordon West with Technical Editor Eric P. Nichols KL7AJ. Nichols is a regular contributor to ARRL publications and has written several ARRL books. He has collaborated on the Gordon West books since 2013.

## Gordon West Named ARRL National Instructor

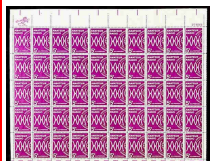
ARRL Education and Learning Manager Steve Goodgame K5ATA, has also announced that Gordon West has been named ARRL National Instructor. Goodgame leads ARRL programs that benefit amateur radio volunteer instructors and professional educators. "Gordon West will serve as the ambassador for the new ARRL National Instructor Program," said Goodgame. "The program will place greater emphasis on connecting prospective hams with opportunities to find ARRL Affiliated Radio Clubs and classes. The National Instructor Program will also support ARRL volunteer instructors with new resources for teaching amateur radio courses and for developing licensees."

## About Gordon West WB6NOA

Gordon West has been an amateur radio operator for more than 60 years, holding the top-level license of Amateur Extra, call sign WB6NOA. He also holds an FCC Commercial Operator License, the First Class General Radiotelephone Certificate with Radar Endorsement. A frequent guest and presenter at ham radio conventions, West is well-known by the amateur radio community for his unique educational style and commitment to developing instructors. His work has benefited thousands of new amateur radio licensees. He is an ARRL Life Member, and has earned many recognitions including ARRL Instructor of the Year and Dayton Amateur Radio Association 2006 Amateur of the Year. The Gordon West Ambassador of the Year Award is presented annually by Orlando HamCation® to an amateur who has made outstanding contributions to the amateur radio community.



## For Sale:



**Full sheet of 50 (fifty)** historic 1964 US Amateur Radio Postage Stamps. (More Than One Available)

Originally issued on December 15<sup>th</sup>, 1964 these Postage Stamps were specifically commissioned to honor the nation's 250,000 hams. The release fell on the 50<sup>th</sup> anniversary of the founding of the American Radio Relay League, (ARRL) and was first made available for purchase in Anchorage, Alaska where amateur radio operators played an important role in the aftermath of The Great Alaskan Earthquake on March 27<sup>th</sup> of that year. The purple vertical stamp was designed by Emil J. Willett of Hartford, CT and combines a radio broadcast sine wave with a partial radio dial. Nearly 60 years later, these are cherished by amateur radio operators around the world.

Brand new and never hinged with full gum adhesive, this Scott # 1260, 5 cent Amateur Radio Sheet is in absolute Collector condition. Makes a memorable Birthday. Absolutely suitable for framing!

**\$29** +\$2 for USPS First Class shipping to any 50 US. Check, M.O., Zelle, PayPal (**F&F only**) ok. Write to PeteTheGreek at: [NL7XM@arrl.net](mailto:NL7XM@arrl.net)

## WEARS-Fest 2024

Westmoreland Emergency Amateur Radio Service, Inc.

Saturday, March 9<sup>th</sup>, 2024, 8:00 AM— 1:00 PM

**Greensburg Masonic Center**

349 Donohoe Road, Greensburg, PA 15601-6988

Talk-in on 147.180 PL 131.8 Admission \$5

More Information at <http://wc3ps.org>



## Two Rivers ARC 52<sup>nd</sup> Annual Hamfest

Sunday, April 7<sup>th</sup>, 2024, 8:00 AM—Noon

**Elizabeth VFD Bingo Hall**

101 South First Avenue, Elizabeth, PA 15037

Talk-in on 146.730 — Mobile Check In 146.52

Admission \$5

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



## CQ Contest Hall of Fame Nominations Sought

John  
Dorr  
K1AR

Windham, NH, January 15<sup>th</sup>, 2024 – This email is a request for your club's nomination application(s) to the CQ Contest Hall of Fame.

As most of you know, the purpose of the HOF is to recognize individuals who have made significant contributions to amateur radio contesting (both in support of others and in personal operating achievements). In addition, candidates should be known for meaningful/measurable contributions to the hobby at large.

Please include the following information with your application:

- \* Name of Person Being Nominated
- \* Callsign (if multiple callsigns, list most recent)
- \* If your nominee is still living, please supply their current contact information
- \* A description of this person's accomplishments/achievements and why you feel he/she should be elected to the CQ Contest Hall of Fame
- \* Nominating Club and Contact Information. This is only for the purpose of contacting you in case of questions, and will not be published:

⇒ Nominating club

⇒ Contact name

⇒ Mailing address

⇒ Phone

⇒ E-mail address

Nominations will be accepted until March 1<sup>st</sup>, 2024. You can send your responses to K1AR via email at: [cqk1ar@gmail.com](mailto:cqk1ar@gmail.com).

Upon receipt of all applications, each nomination will be reviewed and voted upon by the CQ Contest Directors, CQ Contest Editor and others. As usual, an announcement and awards ceremony will take place at the Dayton Hamvention Contest Dinner on May 18<sup>th</sup>, 2024.

Thanks, in advance, for your support of this prestigious program. If you have any questions, send them to me directly via return email

## SWODX DX Dinner Announcement

Bill  
Salyers  
AJ8B

Waynesville, OH, January 19<sup>th</sup>, 2024 -- The SouthWest Ohio DX Association (SWODXA) is pleased to announce that we will again sponsor the DX Dinner, held in conjunction with the 2024 Dayton Hamvention®. This, our 39<sup>th</sup> annual dinner, will be Friday, May 17<sup>th</sup>, 2024, at **The Marriott at the University of Dayton, 1414 S. Patterson Blvd., Dayton, OH 45409**.

We will have another fantastic array of great prizes at the dinner and the Forum on Saturday!

There will be a cash bar starting at 5:30 p.m., with dinner served at 7:00. Following the event, there will be a separate room and cash bar available for more fellowship. This is an excellent opportunity to meet new hams and to renew old acquaintances as well as to learn about past DXpeditions and those in the planning stages.

The Marriott is very accommodating to a group our size. The dining room is very large and located on the ground floor so there are no steps and there is ample free, on-site parking.

This dinner is always well attended by some of the most avid DXers in the world. Previous dinners had over 400 attendees! As in the past, there will be some major door prizes, and there is always great anticipation as to who will be named the "DXpedition of the Year®" as well as who will be inducted into the CQ DX Hall of Fame.

The keynote speaker will be Dave Anderson K4SV.

Tickets can be purchased on the SWODXA Events website at <https://swodxaevents.org/product/single-seat-ticket-2024>.

Program details and a list of the prizes will be on the website as they become available, and updates will be sent out regularly via X. Follow us on X - @SWODXA



## DX News Briefs



**TX5S** went QRT on 28 January due to changing weather conditions. The team was back on the boat that day, and preparing to depart for San Diego soon afterwards. The last of the logs (approx. 113,000 QSOs) have been uploaded to Clublog and to MØURX. The log for **NGWM/MM** is also available at MØURX. For those wishing to support the team, merchandise can be purchased from Bart SQ1K's shop at <https://www.etsy.com/shop/SQ1KBartsShop>

**7O2WX** arrived on Socotra Island on 23 January, arriving at his base camp the next day. He has reported having his 160 m antenna operational. He is expected to be QRV through 12 February. QSL via IZ8CCW

**CB0ZA** will be QRV 10-24 February from Robinson Crusoe Island SA-005. They will also be operating a NexGenRiB remote operation as **CB0ZEW** (call selected in memory of team leader/organizer CE1EW(SK)) More information at [CB0ZA Callsign Page](#). QSL via N2OO

**5X1A** will be QRV 12-20 February. QSL via G3SWH. No bureau cards.

**VPAB2E/VP9** will be QRV 14-19 February, mainly CW, some FT8, focus on the low bands and WARC bands. QSL via AB2E

**V47JA** will be QRV 17-27 February, 160-6, FT7 and SSB, QSL via W5JON

QRV for the ARRL DX Contest CW, 17-18 February:

+	<b>KH0W</b>	QSL via KC0W
+	<b>KP2M</b>	QSL via NZ4DX
+	<b>NP2X</b>	QSL via KU9C
+	<b>VP2MER</b>	QSL via LotW only.
+	<b>VP9I</b>	QSL via WW3S
+	<b>ZD7W</b>	QSL via W6NV
+	<b>ZL3X</b>	QSL via LotW only.

**DS1TUW** will be QRV 29 February – 2 March from Paengnyong Island AS-122 (PM27). Ji notes that the QTH will be 500m away from the northern coastline of DPRK, and P5 is clearly visible with the naked eye!

QRV for the ARRL DX Contest SSB, 02-03 March:

+	<b>KH0W</b>	QSL via KC0W
+	<b>KP2B</b>	QSL via EB7DX
+	<b>WP3A</b>	QSL via EB7DX.

**T32EU** will be QRV 12 – 27 March, 160-7, CW SSB RTTY FT4 and FT8. QSL via DL2AWG, OQRS, ClubLog, LotW

**VK5FIL** will be QRV from Flinders Island OC-261 14-21 April. QSL via MØOXO or OQRS

**MD7C** will be QRV 27-28 July for the RSGB IOTA contest. QSL via MØOXO

The Intrepid DX Group has posted the DXpedition video from the January-February 2016 **VP8STI** & **VP8SGI** activations on YouTube. <https://www.youtube.com/watch?v=9gAWAV2KVFI&t=11s>

## QSL Routes

3B9AT via IV3JVV	G2L via G8ATD	OX5DM via OZ1ACB
4S7KKG via DC0KK	GX1FCW via G1FCW	OX7AKT via OZ1ACB
5B4AMM via UT5UDX	H25A via LZ3SM	OZ30EU via OZ8IE
5J3L via HK3LRL	HB0A via HB0FL	P3D via VE3DZ
5K6RM via HK6RM	HF5A via SP5LGS	P40L via WA3FRP
A65HS via 9K2HS	HH220Y via N2OO	PA1UN via DK2BK
A0100WDC via EA5RKB	HS6SSE via DJ5BK	PA80STAR via PA1UN
AT3K via VU2XE	HK3C via MØURX	PB37EUDXF via PA1AW
AU2JCB via VU2DSI	IO8O via IK8UND	PF37EUDXF via PA1AW
C21TS via MØOXO	IR9K via IT9DSZ	PJ7PL via N2HX
CO7DSR via IK2DUW	IY5PIS via IK5WOB	R100ZK via RN3RQ
CP5HK via EC6DX	JW/MØPLX via SP7DPJ	SC6O via SM6OEF
CR3A via OM2VL	JW7QIA via LA7QIA	SK100FRK via SK4AO
CR3W via DL5AXX	LT6M via LU3MG	SM2A via SM2ILF
CS2024HNY via CTIREP	LX8RTTY via LX1DA	SN32WOSP via SP6ZHP
CS24HNY via CT7AOV	LY310KD via LY2NZ	SP105PWK via SP3PDO
CT9/IV3CTS via YT4RA	OE100XBB via OE5WRO	SP32WOSP via SP3PGX
D4M via IZ4DPV	OE2S via OE2GEN	SK0NWA via SV2DSJ
DK0FY via DK82B	OE24BI via OE5CCN	SX9V via SV9DJO
DK100DDSR via DL2BJW	OE205XMAS via OE3JOO	TM125ED via F4KLR
DL0EUF via DJ8NK	OE37EUDXF via OE6VIE	TM3Z via F4DSK
DL0EW via DK9VA	OE40WO via OE8XDX	TO1A via F5HRJ
DL100ANA via DH7WW	OE5TXF via G3TXF	TZ4AM via XK4R
DU37EUDXF via PA1AW	OF60IRON via OH8DR	V31CQ via K5PS
EG8CDT via EA8CMY	OG100AK via OH1AK	V85A via EB7DX
EH2EUS via EA2TP	OG3B via OH3RB	VE2PEACE via VE2JCW
EH24HNY via EA5TW	OL1Z via OK2WZN	VK0AI via VK5MQ
EX0DX via HB9DUR	OP4F via ON4AEF	XL3A via VE3AT
FJ4WEB via K2LIO	OT40PRA via ON8J	XU7AKU via JA1DXA
FW2CW via ZL3CW	OT4N via ON4CN	XW4DX via F4BKV
G2E via MØORD	OT65BXE via ON5UB	ZA/OE8NDR via DE1QSL

Thanks to DL1SBF, KB8NW, NG3K, the DX-QSL Reflector, 425 DX News, DX Coffee, DX World.Net, ICPO Bulletin & ARRL DX Bulletin for our DX News information. Thanks also to the ARRL DXCC Desk, & Bernie McClenny W3UR / The Daily DX for confirmations & additional information.





## WASH Classifieds

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

### HAM RADIO INSURANCE ASSOCIATES, INC.

P.O. Box 201  
Canonsburg, PA 15317-0201  
Toll-Free 1-800-545-8881

Fax: (412) 746-5944

[bill.hill@hamradioinsurance.com](mailto:bill.hill@hamradioinsurance.com)

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

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



Antenna Zoning or PRB-1 Issues?

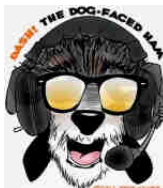
Contact: **Michael S. Lazaroff K3AIR, Esquire**

Lazaroff & Suhr, Attorneys at Law  
277 West Main Street, Saxonburg, PA 16056  
Phone: 724-352-4905

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

Find the online cartoons and stories of Dash the Dogfaced Ham & more at <https://www.jeffk1nss.com> !

Shop for Dash items at his online store on Café Press, [www.cafepress.com/shopdash](http://www.cafepress.com/shopdash)



**For Sale:** Shift "Lightblast" entertainment projector for PCs and game devices. Allegedly projects an image 10' wide. Bought online by my daughter, found that she could not use it nor could she return it. Advertised as "new" but appears to be used.

As-is. Best offer over \$35 (plus S/H). Email Ron W3WN [w3wn@n3sh.org](mailto:w3wn@n3sh.org) if interested.

### US Amateurs by Class as of January 28<sup>th</sup>, 2024

Novice	6,793
Technician	427,302
General	201,907
Advanced	35,807
Extra	164,575
Club	12,393
<b>Total</b>	<b>848,777</b>

Information gathered from FCC Daily Updates, courtesy of [AE7Q.com](http://AE7Q.com)

### PA Amateurs by Class as of January 28<sup>th</sup>, 2024

Novice	309
Technician	12,145
General	6,819
Advanced	1,394
Extra	5,885
Club	442
<b>Total</b>	<b>26,994</b>

Information gathered from FCC Daily Updates, courtesy of [AE7Q.com](http://AE7Q.com)

### Latest Region 3 Sequential Calls, Issued as of January 28<sup>th</sup>, 2024

Group A	AC3LF
Group B	KF3EV
Group C	(none available / all issued)
Group D	KC3YTW

Information gathered from FCC Daily Updates, courtesy of [AE7Q.com](http://AE7Q.com)



## FCC News

American Radio Relay League

Newington, CT, January 11<sup>th</sup>, 2024 – ARRL The National Association for Amateur Radio® responded to the Federal Communications Commission's (FCC) request for comments on removing the symbol (baud) rate restrictions that apply to data communications on the LF bands and the VHF and UHF bands below 450 MHz. The FCC also requested comments on the bandwidth limits applicable to those bands.

The FCC's action follows [their 2023 decision to remove the symbol \(baud\) rate limits on the 160- to 10-meter amateur bands](#). Those limits were replaced with a 2.8 kHz bandwidth limit, a move ARRL had long advocated for.

The FCC's Further Notice of Proposed Rulemaking sought comments on updating the other amateur bands on which its symbol (baud) rate limits continue to throttle faster data rates. The subject bands are the LF bands (2200 and 630 meters) and the VHF and UHF bands below 450 MHz. In its comments, ARRL strongly agreed with the FCC's proposal to remove the symbol (baud) rate limits on the remaining bands.

ARRL's comments also noted that CW operation is protected in the lower 100 kHz of the 6- and 2-meter bands and will continue to be so protected, but otherwise, all modes are permitted in the remainder of the subject VHF and UHF bands with only the data modes subject to bandwidth restrictions below 450 MHz that vary by band. The bandwidth restrictions uniquely applicable to data modes have resulted in the other modes being permitted to use many times the bandwidth of data modes in an intermixed fashion determined by those using the bands. For the data modes, however, the limits have limited experimentation with techniques already in use in other countries on amateur VHF and UHF bands.

ARRL concluded that the FCC should also remove the bandwidth limits that apply uniquely to the data modes on the subject bands, and instead, amateurs rely on voluntary band plans and local agreements, as they already do with regard to the mix of the other modes ranging from Morse code (CW) signals of 50 Hz or so (depending upon speed) to amateur television that employs signals of 6 or more MHz. ARRL also noted that the limited propagation range on the subject bands enables local cooperation that is not possible on the HF bands where propagation is such that signals can cover the globe.

The bands addressed in this rulemaking are:

- 135.7 – 137.8 kHz (2200-meter) and 472 – 479 kHz (630-meter) bands.
- 50.1 – 54 MHz (6-meter) and 144.1 – 148 MHz (2-meter) bands.
- 219 – 220 MHz (1.25-meter digital) bands.
- 222 – 225 MHz (1.25-meter) and 420 – 450 MHz (70-centimeter) bands.

## N3UE Woodworking

Ed Wolf N3UE has taken up a new endeavor... laser engraving.  
(See sample)

He's currently available for plaques and signs of varying shapes and designs.

Prices vary, but are very reasonable!

Interested? Contact Ed directly at  
[n3ue11@gmail.com](mailto:n3ue11@gmail.com)



I caught my son chewing electrical cords.  
So I had to ground him. He's doing better currently. He put up some resistance at first, but is now conducting himself properly.  
With any luck, this experience will transform him.

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

Just send an email to [w3wn73@gmail.com](mailto:w3wn73@gmail.com) and we will take care of the rest!

**Has Roadway found the tower yet?**



# WASHfest 2024

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

Sunday, February 25<sup>th</sup>, 2024

8:00 AM until 3:00 PM Rain or Shine (or Snow!)

**Home Economics Building, South Park**

3735 Buffalo Drive, South Park Township, PA 15129

Behind the Allegheny County Police Station on Brownsville Road

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

Donation \$5



**(800) 545-8881**

Breakfast & Lunch will be available!



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

## MAIN PRIZES



First Prize:

Yaesu FT-710 Field Radio

Second Prize:

Dual Fuel Portable Generator

Third Prize:

Remote Weather Station

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

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

**All Prizes Subject to last-minute changes**

For Table Reservations, or More Information, Please Contact:

Ron Telek W3LE at (412) 831-4886 [w3le@comcast.net](mailto:w3le@comcast.net)

E-mail us directly at [washarc@yahoo.com](mailto:washarc@yahoo.com) Check out our website too! [www.n3sh.org](http://www.n3sh.org)

**Please Note:** Early Table Reservations must be paid in full on or before January 31<sup>st</sup>, 2024.

Reservations received after February 1<sup>st</sup>, 2024 must include payment in full.

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

Hamfest Table Reservation Form—Please PRINT LEGIBLY ALL INFORMATION

Name: \_\_\_\_\_ Email: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: ( ) \_\_\_\_\_ - \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Call Sign: \_\_\_\_\_

Tables WITH Electricity: \_\_\_\_\_ X \$15.00 = \_\_\_\_\_

Tables WITHOUT Electricity: \_\_\_\_\_ X \$12.00 = \_\_\_\_\_

Please make all checks payable to:  
WIRELESS ASSOCIATION OF SOUTH HILLS  
PLEASE MAIL RESERVATION TO:  
**WASHFEST 2023**  
c/o RON TELEK W3LE  
3065 Aljean drive  
Bethel Park, PA 15102

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





# WIRELESS ASSOCIATION OF SOUTH HILLS, INC.

## Membership Application, New or Renewal



I would like to join WASH! I am interested in the following type of membership:

☐ New Membership ☐ Membership Renewal

(check quarter \_\_\_\_\_)  
(check one )

☐ 1st Qtr  
Jan-Mar

☐ 2nd Qtr  
Apr-Jun

☐ 3rd Qtr  
Jul-Sept

☐ 4th Qtr  
Oct-Dec

☐ (F1) Full Membership:

\$20.00

\$15.00

\$10.00

\$5.00

☐ (F2) Full Membership < 18 or > 65 yrs of age:

\$10.00

\$7.50

\$5.00

\$2.50

☐ (A1) Associate Membership:

\$10.00

\$7.50

\$5.00

\$2.50

☐ (FM1) Family Membership (\$3.00 x No. of household 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!

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Send an email to [bernie@dailydx.com](mailto:bernie@dailydx.com) or go to [www.dailydx.com](http://www.dailydx.com)

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



**Arhhh!**  
What Mightst We Draw For Ye, Matey?

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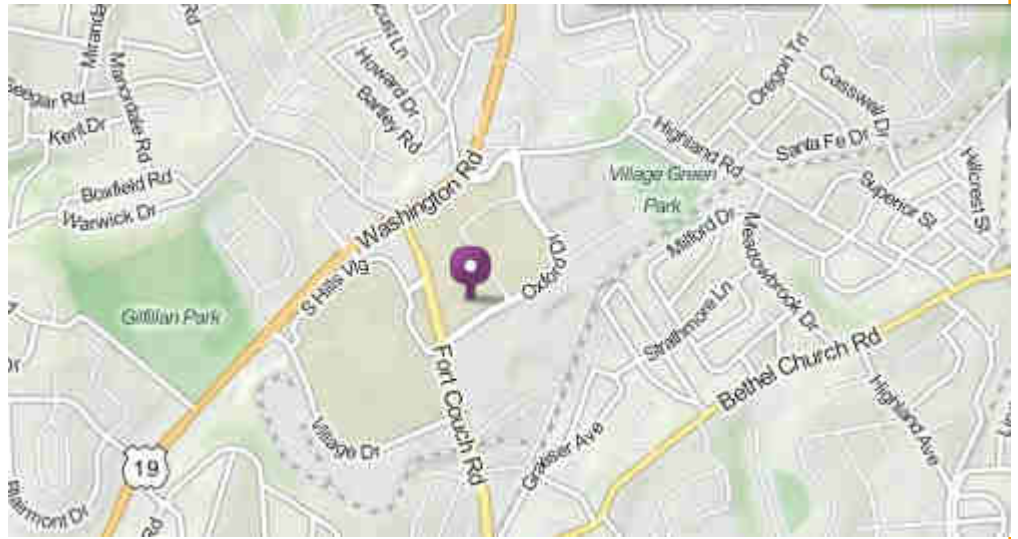
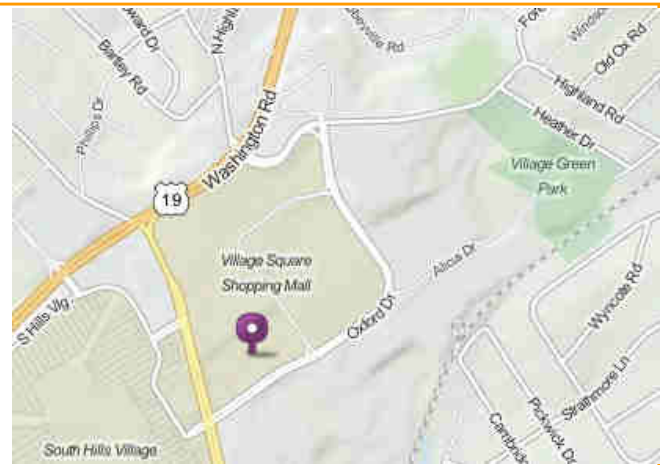


# ***2024 WASH Meeting Location***

## **St. Clair Health Outpatient Center Village Square 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](http://www.n3sh.org)  
[www.washarc.org](http://www.washarc.org)

