



# WASHRAG™

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VOLUME 26 ISSUE 07  
JULY 2024

Wireless Association of South Hills

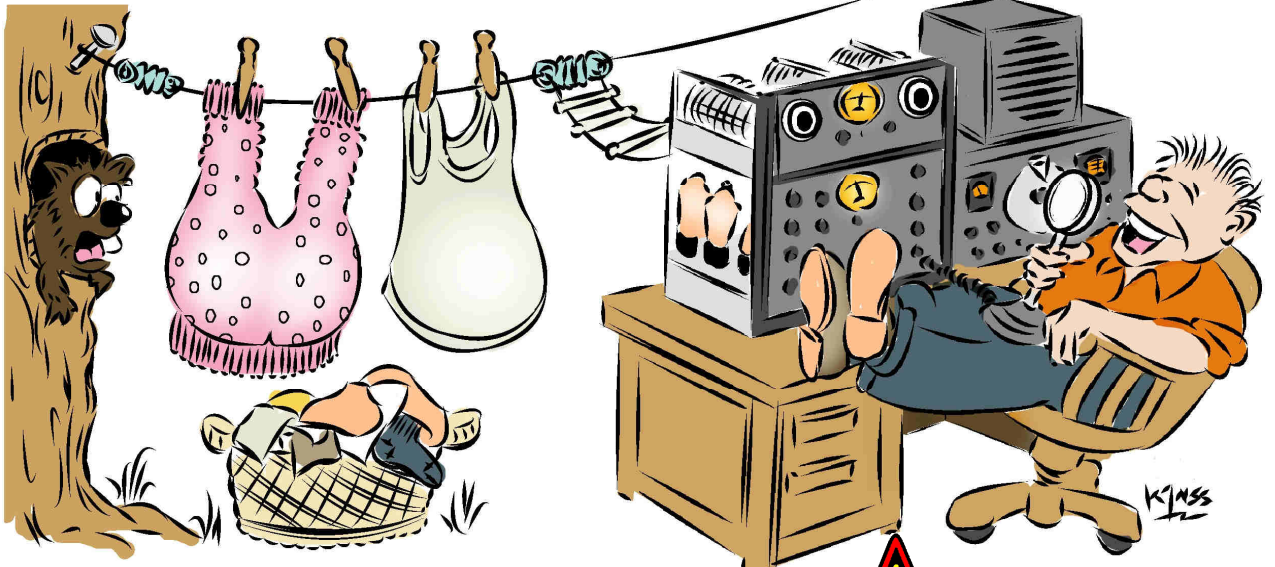


N3SH WA3SH NP2SH/B

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



# Wireless Association of South Hills



# WASHRAG™



VOLUME 26 ISSUE 07  
JULY 2024

## Next Monthly Meeting: Thursday, August 1<sup>st</sup>, 2024 (?)

The next scheduled meeting of the **WIRELESS ASSOCIATION OF SOUTH HILLS, INC.** is scheduled to be on **Thursday, August 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. A Club Picnic on a date/location to be determined will tentatively replace the regular meeting.

Topics Include: PA QSO 2024, other 2024 Plans, and much more. See you there!

*Cover: Fireworks! (As seen over the Allegheny from PNC Park) Hope you enjoy the ones this Fourth of July!  
Photo courtesy of and © Copyright 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 2025 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 KB3GMM
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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Ron Notarius W3WN  
3395 Rosewood Drive, Castle Shannon, PA 15234-2546  
e-mail: [w3wn at arrl dot 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 TBD

The Next WASH VE exam session will be on **Wednesday, June 27<sup>th</sup>, 2024, 6:00 PM**, at **WPXI Studios**, 4145 Evergreen Road, Pittsburgh P, just off the Parkway North. Talk-in on the 146.955 MHz repeater. All

**The dates and locations for upcoming VE Exams have not been set yet.**

**As soon as the information is available, it will be published in the newsletter and on the N3SH website.**

**Thank you for your patience!**

examiners are ARRL VEC affiliated.

**Pre-registration is strongly 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  
Please bring the following to your test session:

## A Few Words



Reminder that the July meeting has been cancelled due to falling on the Fourth of July! Our August meeting will be a Club Picnic, date and location to be decided (we do already have one volunteer but it's not official yet).

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

## Reminder:

**The July WASH Meeting has been cancelled due to the Fourth of July holiday.**

**The August WASH Meeting will be a Club Picnic on a date and location to be determined. More information will be available on the club website when available.**

**The September WASH Meeting location will be at The St. Clair Health Outpatient Center Village Square in Bethel Park! Map and directions are on Page 14. Meeting begins at 7 PM.**

Saturday, June 29<sup>th</sup> turned out to be a nice summer day, even though the weather looked a little off first thing in the morning. But it takes more than the threat of a little precipitation to deter the intrepid souls of the **WASH BREAKFAST GANG**. This month, the **McMURRAY EAT'N PARK**, 3380 WASHINGTON ROAD hosted WB4GCS, N3IDH, N3FB, KC3GMU, AC3WM and W3WN & Julie. We entertained ourselves with tales of confused horses in the road, The Bobbsey Twins, configuring equipment, fighting with Corporate IT, N1MM+ vs N3FJP software, a USS Theodore Roosevelt coffee mug, working Nathan on vacation with an IC-706, remembering Radio Shacks, and back when guys who worked there knew something (and weren't trying to sell you a new cell phone), scheduling appointments, EKG's and AFIB, reading about Admiral Ricover... and we got writer's cramp.

And this was just a small gathering! Hope to see you at the next one, Saturday, July 27<sup>th</sup>, at the **McMURRAY EAT'N PARK, 3380 WASHINGTON ROAD**. See you there!

Well, it's been an... interesting month. Of course, everyone is disappointed that despite all the planning and hard work that went before, Mother Nature intervened, and **N3SH Field Day** had to be **cancelled**. It is of little comfort to learn that many other FD operations in our area and around the country suffered the same fate. Ye Editor always looks forward to FD weekend, and after having to miss some other recent events, was anticipating some operating time with everyone... but it was not to be. Ye Editor has only missed a handful of FD's over the many years... the birth of Little Miss Field Day being about the only time he didn't mind at all (but ask him sometime about that family wedding in King of Prussia on a FD weekend, too many moons ago). Ahem. Of course, the short answer is the rallying cry "just wait 'till next year!" It will have to do, but it is of small comfort.

And thanks to everyone who sent photos or notes about what FD operating they did do! Anyone else? We can, and will, always make room for club members operating!

Which leads us to the next major club operating event. **The Pennsylvania QSO Party** in October. Always a fun event, but it WILL be here before you know it. Got plans? Want to participate? Let someone know! There are always multi-ops looking for an additional voice or set of hands, and many willing to share the shack with other operators!

The 16th Annual 13 Colonies Special Event began on July 1st, and runs through July 7th. K1A through K2M represent the original 13 US colonies, with three bonus stations, 6B13COL, TM13COL and WM3PEN. Certificates are available for anyone working one or more of the stations — you do not have to have a clean sweep to earn a certificate!

QSL Information for each station can be reached via the event web site, <http://13colonies.us/>

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

# Minutes, June 6<sup>th</sup> Meeting

Nathan Suehr KC3GMM, Vice President / Secretary, WASH

Call to Order: 19:04.

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

Roll Call. 16 Members, 0 Guests Present

## Committee Reports:

**Treasurer:** Financial report read. Bill (W3WH) - Motion to accept financial report with second by Kathy (KA3VXM). Voted and carried.

**Secretary:** Nathan (KC3GMM): May meeting minutes published in the June WASHRag. No corrections to the minutes. Bill (W3WH) with motion to accept secretary report with second by Carol (KB3GMN)

**Field Day 2024:** Frank (N3FB)

- ◆ Tom (KB3NIX) - Do we have somebody available to stay overnight? Will stay if another person can stay.
- ◆ Frank (N3FB) - Will be working the weekend of Field Day. Will bring beam and tower trailer before leaving and will return Sunday to tear down. Bringing lights. Harold (K3HCR) picking up items from storage. Mike (KB1CKF) in charge of safety and security. Jim (WB4GCS) handling power and grounding. Bringing generator. Gary (KB3YCX) doing publicity. Carol (KB3GMN) taking care of food. Need Jim (WB4GCS) to bring grill. Meals are lunch and dinner on Saturday with leftovers on Sunday. Jeff (N3JSF) and Dave (N3DFK) scoring and logging (IT). Four radios secured. Jumpers secured to connect radios to patch panels.
- ◆ Larry (K3VX) - W3K listed on Field Day site with location.
- ◆ Bill (W3WH) - Motion to allow ~\$400 for food with second by Mark (N3RDV).
- ◆ Mark (N3RDV) - Can contacts made from home be affiliated with the club? Yes, but it doesn't affect the score.
- ◆ Larry (K3VX) - IC7300 radios have six slots to record a message containing the CQ and the exchange.
- ◆ Bill (W3WH) - Even if we don't have someone to stay overnight, we should put the ropes up in the trees so we can easily pull the antennas up on Saturday morning.
- ◆ Larry (K3VX) - Working on a Google form to use as an operating signup sheet. We need the push up masts from Curtis. Nathan (KC3GMM) to call Curtis about masts.
- ◆ Bill (W3WH) - Do we have enough people to operate as 4A? Gary (KB3YCX) - Wait and see who signs up.
- ◆ Nathan (KC3GMM) - Coolers and ice
- ◆ Carol (KB3GMN) - Need a headcount for food. Bill (W3WH) - Will send out an email to prompt folks to use the signup sheet. Frank (N3FB) - Add food question to the signup sheet.

**Repeaters:** Frank (N3FB) – No report.

**WASHNet:** No report.

**Thursday night tech talk:** No report.

**Public service:** Mike (WA3PYU) - Sunday of Field Day is Rachel Carson Walk. Vintage Grand Prix and Westmoreland Air Show coming up. See Mike to sign up.

**Newsletter:** Newsletter is out. .

**VE:** Grant (KC3MLC): Testing date secured at WPXI.

**Ways & means:** Carol (KB3GMN): Nothing.

**Contests:** No report.

## Old Business:

- ◆ Tom (KB3NIX) - Spoke with Curtis about the Killowatt award. Will combine last year with this year.
- ◆ Frank (N3FB) - Has filters ready to sell to Glen. Will bring to Field Day. Three filters out of our collection were bad. New filters are \$75-\$80 per filter. Price of \$200 for the set was suggested.

## New business:

- ◆ Tom (KB3NIX) - Topic of discussion in July, we should talk about Echolink and similar options. July meeting date would fall on July 4<sup>th</sup>.
- ◆ Bill (W3WH) - Motion to skip July meeting and have an outdoor meeting in August with a picnic. Second by Harold (K3HCR).
- ◆ Richie (N3SBF) - Somerset Hamfest is July 7<sup>th</sup>. Steel City Corn Roast is Sunday August 18<sup>th</sup>. Skyview Hamfest is in August. Also has the Killowatt award.

Continued on Page 5

# WASH Spotlight: 48

Congratulations to Jim Sanford WB4GCS and Patti Sanford KC4WTT, on 48 years of marriage!

Seen here at the Biltmore Hotel, formally celebrating their anniversary

Photo courtesy of and © Copyright 2024 Jim Sanford WB4GCS



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

AC3ML	KC3ELA	NY9H	WASH FL	WASH TN	<b>Silent Keys</b> AB3KA AB3ED AC4KU AD3Q K3EED K3LIE KA3NMG KB3ENX KB3FNM KB3FOT KB3JHQ N3BPB N3CZZ N3FZ N3HKQ N3KEH N3OBD N3RNX N3SKR N3SRC N3ZEL N3XFE W3ZLK W4ZE WA3JPP
AC3WM	KC3GMM	W3LE	KA3UPY/M	K3OL	
AC4KU	KC3MLC	W3WH	WASH NE	KE3XB	
AE3DL	KC3UUK	W3WN	NØPEU	N3YPB	
K3GW	KC3VQR	W8LEV	WASH OH	WASH TX	
K3HCR	KC4WTT	WA2YEZ	N8DPW	NB3C	
K3OCT	KE7FD	WA3PYU	WASH OR	K3LGM	
K3SEM	N3DFK	WA3VSS	KB3NVL	KB3IJX	
K3SGT	N3FB	WB4GCS	KB3NVM	Jane Wagner	
K3VX	N3FFS	Charmel	NØVLR	WASH VI	
K6DWR	N3JSF	Spirk	WASH SC	NP2JF	
KA3VXM	N3RDV		N8NEU		
KB3BYA	N3RXO				
KB3GMN	N3SBF				
KB3GMU	N3TBJ				
KB3GUZ	N3TDV				
KB3IAC	N3UE				
KB3IVX	N3WMI				
KB3JHR	N8NEU				
KB3NIX	NB3C				
KB3YCX	NL7XM				

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

Through July 3<sup>rd</sup>, 2024  
List compiled by  
Mark Stabryla N3RDV, Vice President/Treasurer

# 2024 WASH Upcoming Events Calendar

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

July 1 <sup>st</sup> — 7 <sup>th</sup>	16 <sup>th</sup> Annual 13 Colonies Special Event	<a href="http://13colonies.us/">http://13colonies.us/</a>
July 7 <sup>th</sup>	Somerset County PA Hamfest	Somerset County Technology Center, 281 Technology Drive, Somerset PA 15501
July 13 <sup>th</sup>	Northwest PA Hamfest	Greene Township Municipal Building, 9333 Tate Road, Erie, PA 16509
August 1 <sup>st</sup> (?)	WASH Meeting & Picnic	Location and Exact Date/Time To Be Determined
August 3 <sup>rd</sup> — 4 <sup>th</sup>	Pittsburgh Vintage Grand Prix Schenley Park	<a href="https://pvgp.org/">https://pvgp.org/</a>
August 10 <sup>th</sup>	Uniontown ARC W3PIE 74 <sup>th</sup> Annual Gabfest	433 Old Pittsburgh Road, Uniontown
August 25 <sup>th</sup>	Skyview Radio Society Hamfest	2335 Turkey Ridge Road, New Kensington PA 15068
September 5 <sup>th</sup>	WASH Meeting	St. Clair Health Outpatient Center Village Square Conference Room, 2000 Oxford Drive
October 3 <sup>rd</sup>	WASH Meeting	St. Clair Health Outpatient Center Village Square Conference Room, 2000 Oxford Drive
October 12 <sup>th</sup> — 13 <sup>th</sup>	68 <sup>th</sup> Annual Pennsylvania QSO Party	<a href="https://paqso.org/">https://paqso.org/</a>
October 26 <sup>th</sup> — 27 <sup>th</sup>	CQ WW DX Contest SSB	<a href="https://cqww.com/">https://cqww.com/</a>
November 3 <sup>rd</sup>	WASH Meeting	St. Clair Health Outpatient Center Village Square Conference Room, 2000 Oxford Drive

## Meeting Minutes

Continued from Page 4

**Good of the order:** Nathan (KC3GMM) - Has Breezeshooters tickets available.

### Motion to adjourn

by Bill (W3WH) with second by Carol (KB3GMN). Voted and carried..

**Adjourned at**  
19:57  
06/06/2024

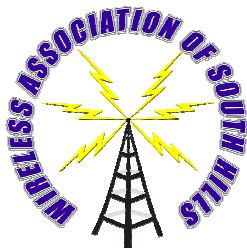


Photo courtesy of and © Copyright 2024 Nathan Suehr KC3GMM



# A Field Day Like No Other

Bill Hill W3WH  
 Photos courtesy of and (c)Copyright 2024 Bill Hill W3WH and Larry Comden K3VX

Canonsburg, PA, June 23<sup>rd</sup>, 2024 – A few hours ago, I returned home from Babcock Grove in South Park. Today is the Sunday of Field Day weekend and there should have been lots of antennas overhead and the shelter brimming with radio gear. However, it was empty. As we all know, the forecast of dangerously hot weather resulted in the Club's decision to cancel our biggest event of the year.

It certainly felt strange to be there with only two people and two cars. After our event was cancelled, Larry and I looked at the forecast and concluded that by Sunday morning the weather was expected to be civil enough for us to try a little FD. Well, it was just fine. About 77 degrees all morning. We planned to only stay until about noon because thunderstorms were predicted during the afternoon.

That's precisely what we did and along the way we ran up a whopping 101 Q's mostly on 40 CW with a few on 20 meters. We used KE7FD's end-fed 53-foot antenna with the high end about 40 feet in the air and the feed point about 5 feet off the ground. The antenna includes two 17 foot counterpoises but during the erection I mistakenly connected one of the counterpoise wires to the "hot side" of the balun so we ended up with a kind of sloping off center fed dipole fed through an ICOM AH-4 tuner. We ran 50 watts and it worked very well despite my error. Kudos to Glen for a well-made portable antenna. If you ask nicely, maybe he'll build one for you.

We operated out of Larry's car with his ICOM 7100. We logged with N3FJP's FD package, and it sent the majority of the CW for us. All in all, it was an enjoyable 3 hours on the air, and we got at least a bit of FD fun.

On Saturday I made a dozen or so contacts with my "peanut whistle" Elecraft KH1 but it wasn't anywhere near the fun us two old guys had on Sunday. I hope you salvaged some FD for your own fun. Being just two people at Babcock was ok but certainly not as nice as our usual full-blown Club event.

Let's hope the weather is better next year.



# A Kluge Field Day

Jim Sanford WB4GCS  
 Photos courtesy of and (c)Copyright 2024 Jim Sanford WB4GCS



- Floor: APC UPS and Astron SS-30M power supply.
- Barely visible: The West Mountain PowerPole bus
- Table: Heil Headset, Filter box, Wireless Keyboard and Trackball and Paddle for CW
- In the box: Winkeyer Mini, HPSDR, and USB Hub
- Outside box: Stereo speakers for local use. (Will be using Heil headset on table for FD).
- Above box: Lepow monitors for HPSDR program and N1MM Logger.

Note the signals on 40 CW on the right hand display!



# Logbook of the World Returns

ARRL Member  
Bulletin  
The American Radio  
Relay League

Newington, CT, July 1<sup>st</sup>, 2024 — **Effective 12:00pm ET / 16:00 UTC (today) we will be returning Logbook of The World® (LoTW®) to service.**

As work progressed on the network, some users encountered LoTW opening briefly during which some 6600 logs were uploaded. The logs were not processed until this weekend as we tested that the interfaces to LoTW were functioning properly.

We are taking steps to help manage what will likely be a huge influx of logs. We are requesting that if you have large uploads, perhaps from contests or from a DXpedition, please wait a week or two before uploading to give LoTW a chance to catch up. We have also implemented a process to reject logs with excessive duplicates. Please do not upload your entire log to "ensure" your contacts are in LoTW as they will be rejected. Lastly, please do not call ARRL Headquarters to report issues you are having with LoTW. You can contact support at [LoTW-help@arrl.org](mailto:LoTW-help@arrl.org).

Through the end of the year, you may experience planned times when LoTW will be unavailable. We have been using this time to evaluate operational and infrastructure improvements we would like to make to LoTW. Those times will be announced.

We appreciate your patience as we worked through the challenges keeping LoTW from returning to service. We know the importance of LoTW to our members, and to the tens of thousands of LoTW users who are not ARRL members. LoTW, just behind QST, is our second most popular ARRL benefit.



## AMSAT Mail Alias Service To End August 1<sup>st</sup>

Washington, DC, June 9<sup>th</sup>, 2024 – A long standing member service, the AMSAT Mail Alias Service is scheduled to end on August 1<sup>st</sup>, 2024. A mail alias on AMSAT.ORG permitted people to send an email to members without knowing their actual internet email address. They just needed to know their amateur radio callsign.

Unfortunately, the unchecked rise in domain name hacking and email account high-jacking has made it impossible to sustain this service at a cost-effective level. The number of [callsign@amsat.org](mailto:callsign@amsat.org) email accounts that had been hijacked and converted to zombie spam account over the years had led many internet service providers and gateway centers to ban all [@amsat.org](mailto:@amsat.org) email addresses, including those business accounts of AMSAT officers and officials. The tireless efforts of AMSAT's all volunteer IT staff has worked for years to repair much of the damage, but AMSAT still get complaints from members who are not getting their personal emails, ANS bulletins or AMSAT-BB posts because of persistent delivery problems.

It has come to the point where the AMSAT volunteer IT staff can no longer keep up with the maintenance requirements to keep the alias mail list clean and to work with email gateways to remove blocks. And, after considerable investigation into alternative paid email services, AMSAT leadership decided that the money required to keep an email alias system alive would be better spent on building and flying satellites for its members.

Persons using the Mail Alias Service should begin to migrate to different email accounts so they do not lose receipt of personal emails, AMSAT News Service Weekly Bulletins, AMSAT-BB posts, or official messages from AMSAT itself. Members are especially asked to make sure they are NOT using a [callsign@amsat.org](mailto:callsign@amsat.org) as their registered email address in the AMSAT membership portal. Members can easily change their registered member email address by logging into the portal and updating their profile.

ANS-161  
AMSAT News Service  
The Radio Amateur  
Satellite Corporation



## GOLF Program Updates

Jerry Buxton NØJY  
The Radio Amateur  
Satellite Corporation

Granbury, TX, June 8<sup>th</sup>, 2024 – Some main events happening with the GOLF program. Golf is the acronym for Greater Orbit Larger Footprint. The program is a series of satellites for flight testing and qualifications. We will be looking at testing various devices and systems that we will need as we move to HEO. Each one carries an amateur radio payload that will continue once the main testing mission is complete.

We are looking to increase orbital heights but that is getting more difficult due to the orbital debris rules. Something that we have to harness before we get out of LEO is the ability to make accurate maneuvers and collision avoidance because there is a lot of traffic up there now and hopefully, we will be able to get beyond that and ultimately our perigee is still about 2,000 kilometers that exempt us from the orbital debris rules. But the fact that we can maneuver give us the opportunity not only for deorbiting when we need to but to raise or lower our orbit to a degree so we can have a longer mission.

Speaking of longer missions, survivability is a big thing especially as we get into the Van Allen radiation belt and such. As you get further away from LEO, there is a lot more radiation bombarding you so the idea of radiation tolerance for commercial off-the-shelf (COTS) parts or in some cases when we do a HEO or a GTO we may want to use some radiation hardened parts so we get the best life out of it. So, what we're looking at is the lowest cost versus performance. It's a trade balance so we can keep as many satellites in space as we can successfully and return to HEO.

In order to do this, we're going to master some satellite operations necessary for higher orbit. This doesn't include engineering. It includes operations who will be controlling the satellites. They will need a good understanding of what the satellites will do and have good instructions to know how to control them.

Some of the main things we need for going higher are:

- Power generation. We're going to need more gain on your power amplifiers, for example to help overcome the link budget. SDR's can get busy and require a bit of power. There are other systems that we will want to keep running as well as experiments. Power is a premium thing that we need, that is getting power generated by the sun.
- Attitude detection and control systems. ADCS something that is vital to control the satellite to point for the best sun or to maneuver. We have to be pointed very precisely if we are going to fire any thrusters. And, we need to point our microwave antennas back toward earth.
- Radiation tolerance is essential to survival. In the older satellites there weren't so many chips, the IC's if you will, so the analog parts, the carbon resistors and such were much harder in the radiation belt.
- Microwaves - We're going to be moving into the microwaves. 10 GHz is the ultimate downlink band. There's a lot of bandwidth up there with 10 GHz, X-Band for downlink and 5 GHz, the C-Band for uplink.
- We are also adding 2.4 GHz, S-Band uplink because that is shared with Europe and QO-100.
- Thrust and propulsion will be the icing on the cake.

Continued on Page 8

# An Oregon Field Day

Paul Lusardi NØVLR

Lebanon, OR, June 26<sup>th</sup>, 2024 – This year we had a constant steady traffic of inquisitive folks – some hams stopping by as well.

One fellow actually operated several of the 6A stations for several hours – adding to our log.

Other folks wondering the event was all about.

Field Day is part exercise, part community outreach, all about the food (ha ha), and some good old fashion contest efforts

We operated on a flawless network where 6 stations were connected using N3FJP software – having 1 station dedicated to digital modes and another dedicated to CW. Other stations operated phone on various HF bands.

Many of us brought campers or tents and stayed overnight(s) and we got to see, try, and understand various antenna setups and how they rank. Then there were various interference issues to resolve. Some power-induced, some in-band contention, but we mitigated it the best we could with band pass filters, separation, and time-



What can we say? Some things never change

## GOLF Program Updates

Continued from Page 7

We have to master all of this to be responsible spacefarers.

### GOLF-TEE Mission

We have Golf-Tee which stands for Technology Exploration Environment. Key features of it are:

It has deployable solar panels that we are developing inhouse. These address the need for more power.

We have secured CubeSpace ADCS, that we will use for the Attitude Detection and Control System. We were working earlier with a startup that would have given us the opportunity to fly cheaper and be part of the development but that did not come to fruition. We looked at a long list of possible ADCS systems and decided that CubeSpace would be suitable for our GOLF-TEE, GOLF-ONE and possible beyond.

We have the RT-IHU, Radiation Tolerant Internal Housekeeping Unit, which was developed as an ASCENT project using COTS, commercial-off-the-shelf, parts intended to reduce the number of upsets that cause the IHU to "latch-up" and have to re-boot. We're going to compare that to the IHU we had on the legacy LTM, linear transponder module, used in the FOX satellites to see if, with the South Atlantic anomaly problem, if we are doing any better with resets on each of those IHU systems.

For the 10 GHz X-Band we're going to have an experimental microwave high speed data downlink which is tricky at LEO, but as we get higher at HEO there is a lot of data we will want to download, not to mention that from experiments. It also gives us an opportunity to possibly use it as a transponder where we would pick off the downlink from the V/U transponder and send it down on 10 GHz as an entryway for people to try working with the microwave bands.

For the GOLF-Tee mission, we are looking at a 500-550 km LEO orbit, accessible through a CSLI/ELaNa launch. Its purpose is to test and qualify new technologies. It will carry the Vanderbilt/ISDE Low Energy Proton Experiment that we have flown before. This will help provide a comparison of what the environment is like with the IHU, RT-IHU and L-IHU units.

We should have a good radio footprint at 550 km. It's orbital debris regulation "friendly" because it will decay rather rapidly with the current sunspot cycle. We'll see how that goes because when we go will make a difference.

### GOLF-1 Mission

The goals for GOLF-1 are the same as GOLF-TEE that are, hopefully, developed quite well. In the meantime, though, if there are things with the construction or during the on-orbit phases, then hopefully we will have time to make adjustments to improve on things. That's always the way you want to go with a series of similar satellites.

This will be a typical mission versus the technology mission that GOLF-TEE is. We will carry STEM, educational based experiments. We have a high school in the San Diego area that wants to fly a camera for earth weather views. We'll fly the Vanderbilt/ISDE Student Radiation Experiment again because there are a lot of students who like to put those together and write papers.

We'll expand the microwave/SDR experimentation. We'll open up the Five and Dime – that's the 5 GHz uplink to 10 GHz downlink. Of course, at LEO it is tricky at best. Nonetheless, it will be there for experimentation with GOLF-1.



Continued on Page 10



# SOMERSET COUNTY ARC HAMFEST

Sunday, July 7<sup>th</sup>, 2024, 8:00 AM— 1:00 PM

Sponsored by the Somerset County ARC K3SMT

## Somerset County Technology Center

281 Technology Drive, Somerset, PA 15501

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

More Information at <https://k3smt.org>



# Cumberland Valley Hamfest 2024

Sunday, July 27<sup>th</sup>, 2023, 8:00 AM— 2 PM

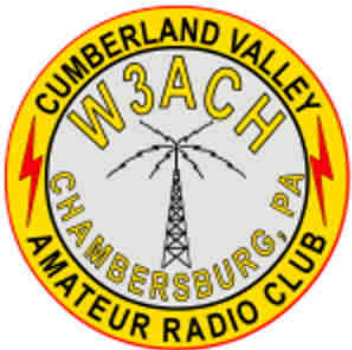
Grounds Open at 6 AM for Vendors & Tailgaters

## CVAEMA Show Grounds

1501 Criders Church Road, Chambersburg, PA 17201

Talk-in on 147.120 PL 100.0 Admission \$5

More Information at <http://w3ach.org>



# UNIONTOWN ARC 74<sup>TH</sup> ANNUAL GABFEST

Saturday, August 10<sup>th</sup>, 2024, 8:00 AM—???

Vendor Setup prior to 8:00 AM

## Uniontown ARC W3PIE Clubhouse

433 Old Pittsburgh Road, Uniontown, PA 15401

Talk-in on 147.045 PL 131.8

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



# 2024 SKYVIEW SWAP 'N' SHOP

Sunday, August 25<sup>th</sup>, 2024, 8:00 AM—1:00 PM

Vendor Setup prior to 8:00 AM

## Skyview Radio Society 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>



## 3YØK Bouvet & 3YØL Peter I Island Updates

Kenneth  
Opskar  
LA7GIA

Hagan, Norway, June 17<sup>th</sup>, 2024 – We plan to activate **3YØL Peter I Island** in February 2027 with a team of 19 operators.

We have signed a financial agreement with a private group about sharing the cost for this DX-pedition. The DX-pedition budget and our share is around \$825,000, of which we must deposit \$340,000 in 2024.

For more details, go to the Web page: <https://3y0l.com/>

Updated June 26<sup>th</sup>, 2024: Today, **3YØK Bouvet** received the helicopter permit from the Norwegian Polar Institute, to make the landing in the period November 2025 to March 2026.

Permit allows us to setup camp at the plateau above Larsya (South West) with clear take-off to North America to Cape Fie (South East).

June 17<sup>th</sup>, 2024 – The landing and operations plan are being revised.

We are negotiating the vessel contract for a DX-pedition to Bouvet Island in the period November 2025 to February 2026. Exact dates TBD.

The DX-pedition team will consist of up to 20+ operators with extensive experience in DX-pedition and contesting.

The plan is to stay 3 weeks around Bouvet Island, and we will use a large vessel and a helicopter to go to Bouvet.

The overall expedition budget is estimated to be in the order of \$1,600,000 where we will team up with a small private group who will share the cost.

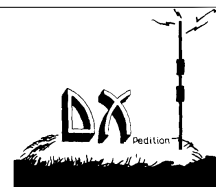
The trip will be fully financed upfront but we will continue to seek donations from clubs and individuals to recover some of our expenses.

At the time of signing the contract we will launch a fundraising campaign, until then we will not seek donations.

For more details, go to the Web page: <https://3y0k.com/>



## DX News Briefs



**S21ZI** is QRV for the foreseeable future, using Clublog Livestream where possible. QSL via MØOXO OQRS.

**K8K** will be QRV through 10 July from American Samoa. QSL via YL2GM or as directed.

**VK2/W7BRS**, from VK9L Lord Howe Island, will be QRV 20 July – 1 August, including the RSGB IOTA Contest. QSL via W7BRS

**RSGB IOTA Contest**, 27 – 28 July, Announced Operations:

- ◆ **5Q5CW** QSL via D15CW
- ◆ **DX7EVM/9** QSL via LotW
- ◆ **G5XV** QSL via MØOXO
- ◆ **GM7V** QSL via N3SL.
- ◆ **IP1X** QSL via ClubLog OQRS.
- ◆ **J48FT** QSL via LotW
- ◆ **PA2G** QSL via LotW
- ◆ **SV8/DH5FS** QSL via DH5FS

**E52KEE** and **E51CZZ** will be QRV 27 July – 6 August, Holiday Style, from both Rarotonga OC-013 and Aitutaki OC-083, CW and SSB, Mainly 20 15 & 10, some 40 30 17 and 12. QSL via IK2DUW

**T88FM**, **T88JH** and **T88MK** will be QRV 12 – 19 September, SSB and FT8. QSL via JO3LVG or as directed

**5H1WX** will be QRV 18 September – 6 October. More information at <https://www.mdxc.support/5h1wx> QSL via I8KHC

**3B9KW** will be QRV during both the CQ WW SSB and CQ WW CW contests. Before and after the contests, look for 3B9/MØCFW. QSL via LotW

**7Q7MW** will be QRV the last week of October from the 7Q7CT QTH, including the CQ WW DX SSB contest. More information to be forthcoming.

**3D2Z** will be QRV 15 November through 4 December, as a Youth On The Air Remote Radio activity. More information at rotuma2024.com. QSL via MØOXO.

**P44W** will be QRV during the CQ W DX CW contest. QSL via N2MM.

## GOLF Program Updates

Continued from  
Page 8

The S-Band/X-Band transponder – 2.4 GHz uplink and 10 GHz downlink (a la QO-100) – will be available.

And, we have a L-Band 1.2 GHz uplink possibility. We aren't certain what that will be used for, perhaps commands. It's not a worldwide band so depending on resources, we'll probably concentrate primarily on the other bands.

Again, we'll have a standard V/U transponder operation. However, it will be the SDR, not the LTM so it gives us the opportunity to make the transponder a variety of things such as an FM repeater or a linear transponder.

### Readiness Dates

The target Readiness Date for GOLF-TEE is December 1<sup>st</sup>, 2025. The Readiness Date indicates to NASA that we are ready to hand it over for integration. Integration is the activity when the satellite is put into the dispenser that then goes to the rocket. NASA holds off basically until our CDR, or Comprehensive Design Review, which will be March 2025 and looking at that readiness date in order to judge when to find a good launch for us.

The integration is typically 45 days prior to launch therefore we would not see a launch until early 2026. But it could happen that fast as they have been pretty good at lining up some launches.

For GOLF-1 the Readiness Date would be a year later, December 27<sup>th</sup>, 2026. Again, we want to look at everything we can learn from GOLF-Tee and put it into GOLF-1 and make it better.

### GOLF-2 and Beyond

From GOLF-2 and beyond the push for opportunities, and I say it is a good push, opportunities for higher than LEO are going to require specialized systems. We know that and is why GOLF-2 will be testing more of these systems.

The deorbit devices are just coming to commercial availability in CubeSats which is very good. They were not available until just recently. We saw at the CDW, CubeSat Developers Workshop quite a few companies with some items coming out that are helpful to us. We have a team looking at thrusters and propulsion in the ASCENT group, ASCENT meaning Advanced Satellite Communications and Exploration of New Technology.

These things can be mastered, I like to use that word, developed and mastered in LEO. We'll be careful about what we fly so it will be a successful mission as we go for those higher and more expensive orbits.

## QSL Routes

3Z65C via SQ9V	G2E via MØORD	S79VU via N4GNR
4J6D via DC9RI	GB1ROC via 2IØROC	S79PAT via S79JKN
5P7F via OZ7FOC	GB4DDL via MØOXO	SNØMARCONI via SP2FVN
7X2RF via EA7FTR	GB8ØDDAY via MØOXO	SN5ØSP18ZN via SP3PGR
8Q7AM via IWØHBY	HB4ØOK via HB9OCR	SN65D via SQ9S
9M1Z via 9W8ZZK	HB9SØTA via HB9HBV	SN73PUK via SP3LPT
A61DQ via EA7FTR	HF73CLR via SP3ESU	SØ1ØTTON via SP1PMY
A61Q via EA7FTR	H33IP via HP1MRA	SP65S via SQ9S
A61QQ via A61BK	HF9MUZEUM via SP9KAG	SP9ØØCPZ via SP1KZE
A71VV via MØOXO	HI6M via EB7DX	T44DX via RW6HS
C91AHV via EA5GL	HK1MW via N2ØØ	TA4Q via EA7FTR
CT9ACD via EW6W	II3BOT via IQ3FX	T88PB via JAØJHQ
D4L via IK2NCJ a	II4A via IK4ADE	TG9AØR via EC6DX
DAØM via DD5DD	II7BR via IK7RWE	TM24CEFA via F8GGZ
DD2Ø24EM via DK7TX	IQ9BH via IT9AGZ	TM2FLO via F6KQP
DL2Ø24E via DL2VFR	IQ9MQ via IT9MRM	TM42JO via TM42JO
DL2Ø24EM via DL3EBB	IY4RFE via IQ4FE	TM5ØØN via F6KGL
DL2Ø24Ø via DL2VFR	LT6M via LU3MG	TM6DDAY via F6KCY
DL2Ø24R via DL2VFR	LX/ØN4IPA via ØN6ZV	TM8ØØBØN via F5PYI
DL2Ø24U via DL2VFR	LX24SAR via LX1JX	TM8ØDD via F5JYD
E2A via E21EIC	LZ/4X6TT via N4GNR	TM8ØDDAY via P43EFR
ED4A via EA4URU	M3D via G3PIA	TM8ØØSG via F4FCE
ED4K via EA4AW	N7F via K7ID	W1M via WS1SM
ED4R via EA4RCH	OE51DEEYE via OE3ØGC	W5D via KC5NX
ED4W via EA4DE	ØHØ/8S5A/P via	V31XX via K4XS
ED5E via EC5AGC	SM5NAS	VKØDS via VK2JDS
EE5Ø via EA5ITJ	ØN4WRC/p via ØN4ØN	YBØAR via EB7DX
ED5R via EA5SR	ØT5X/p via ØN4CRD	Y11ØØRB via YU1EA
EG5YØGA via EA5URV	P3X via 5B4AMM	YU1924RB via YU1ANO
EG712R via EB7R	PA6PARE via PE1EWR	YU7YØTA via YU7SRV
EG7FAIM via EA7RCM	PI4CG via PD2GSP	Z21ML via N4GNR
EH4MCG via EA4DCU	PI4TWN via PB1WB	ZY25ØCPS via PY2CER
FS/W6IZT via KL7ØR	S21PL via I8KHC	

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



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

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

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Antenna Zoning or PRB-1 Issues?

Contact: **Michael S. Lazaroff K3AIR, Esquire**  
 Lazaroff & Suhr, Attorneys at Law  
 277 West Main Street, Saxonburg, PA 16056  
 Phone: 724-352-4905

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

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

Shop for Dash items at his online store on Café Press, [www.cafepress.com/shopdash](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 July 1<sup>st</sup>, 2024

Novice	6,537	0.77%
Technician	424,653	50.1%
General	202,006	23.8%
Advanced	35,116	4.1%
Extra	166,278	19.6%
Club	12,318	1.45%
<b>Total</b>	<b>846,908</b>	

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

PA Amateurs by Class as of July 1<sup>st</sup>, 2024:

Novice	285	1.05%
Technician	12,028	44.7%
General	6,800	25.3%
Advanced	1,384	5.14%
Extra	5,975	22.2%
Club	438	1.63%
<b>Total</b>	<b>26,920</b>	

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

Latest Region 3 Sequential Calls, Issued as of July 1<sup>st</sup>, 2024

Group A	AC3MS
Group B	KF3EW
Group C	(none available / all issued)
Group D	KC3ZJY

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

# CY9C St. Paul Update

Team CY9C 2024

*Farmville, NC, July 3<sup>rd</sup>, 2024* – The St. Paul Island **CY9C** team (26 August – 5 September 2024) is grateful to FlexRadio, Inc. for the loan of six complete FlexRadio station set-ups which include a FLEX-6600 transceiver, Maestro™ control head, and a Power Genius (PGXL) amplifier. A seventh FLEX-6700 station will be used for VHF/UHF/EME and satellite. Each station will have its own Honda EU2200i generator.

There will be three operating teams whose schedule will slowly rotate through the gray line, so everyone experiences all the propagation. Half of the radios will be used for CW, SSB & DIGITAL modes. At any given time, a minimum of three stations will be using the new SuperFox FT8 mode.

All antennas will be monobanders, with the exception of 12/17 meters, which will use a duoband beam with a diplexer. Each antenna will have a high-power bandpass filter.

FLEX radios were chosen for the Maestro ergonomics and the ease of networking the radios, amplifiers and computers with simple CAT5 cables. The amplifiers will all be "remotely" located together in the operations tent. This will make setup quick and simple without the complexities of "all those wires" in wireless! Craig, K9CT, has assembled, labeled and tested all the stations.

The first shipment of equipment will arrive in Dingwall, Nova Scotia, in just 4 weeks. The Team will assemble in Dingwall on August 24<sup>th</sup>. Radio operations will start August 26th (weather permitting) and end on September 5<sup>th</sup> (again, weather permitting). Two helicopters will transport all gear and operators to/from the island, making this the most expensive St. Paul Island operation ever.

One of the requirements for a DXpedition to St. Paul is to have in place a \$1,000,000 liability insurance policy. After several months of searching for a company to write the necessary policy, an insurance underwriter stepped forward with a suitable policy for the DXpedition team. The team would like to thank the Canadian Department of Fisheries and Oceans for working with us in this endeavor.

St. Paul is now under the jurisdiction of two separate entities. The Canadian DFO controls access to the small Northeast Island, and the Canadian Wildlife Service (CWS) controls access to the much larger main island. Access to the main island is now extremely limited, and it may not be possible for future CXpeditions to take place from the main island. The CY9C DXpedition team is very grateful to the Canadian DFO for allowing us access to the Northeast Island.

It has been a challenge to get the needed permits, insurance and licensing. Getting permission for these sensitive areas is becoming increasingly more difficult each year. This could well be the last CY9 St. Paul Island operation for many years to come.

For more information visit our website: <https://t-rexsoftware.com/cy9c/> or our Facebook page: <https://www.facebook.com/groups/1455659374986029/>

## 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)



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 2025

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

Sunday, February 23<sup>rd</sup>, 2025

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*  
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of Canonsburg, PA

## MAIN PRIZES



First Prize: TBA

Second Prize: TBA

Third Prize: TBA



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

**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>, 2025.

Reservations received after February 1<sup>st</sup>, 2025 must include payment in full.

Reserve now... we have sold out in advance fourteen 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: \_\_\_\_\_

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

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

License Class: \_\_\_\_\_

City, State: \_\_\_\_\_

Expires On: \_\_\_\_\_

Home Phone: \_\_\_\_\_

Work Phone: \_\_\_\_\_

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

Birthday: \_\_\_\_\_

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)

ARRL Member?  Yes  No Family ARRL Member?  Yes  No

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Amount Enclosed: \$ \_\_\_\_\_

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

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

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



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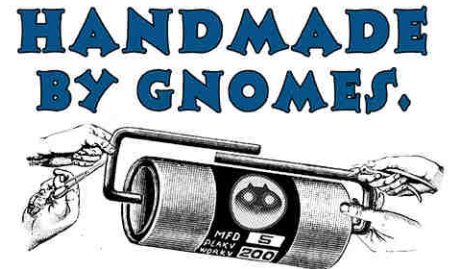
Send an email to [bernie@dailydx.com](mailto:bernie@dailydx.com) or go to [www.dailydx.com](http://www.dailydx.com)

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



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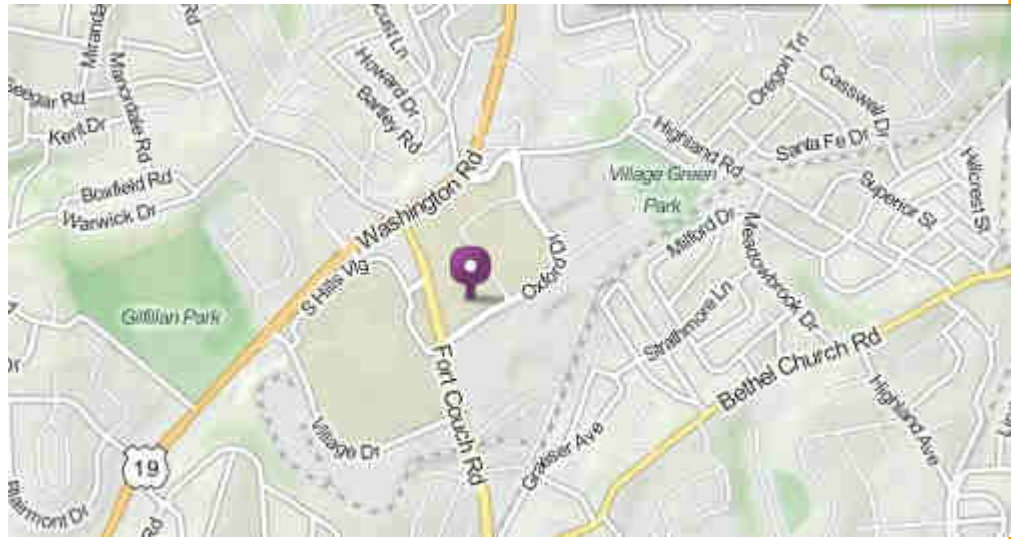
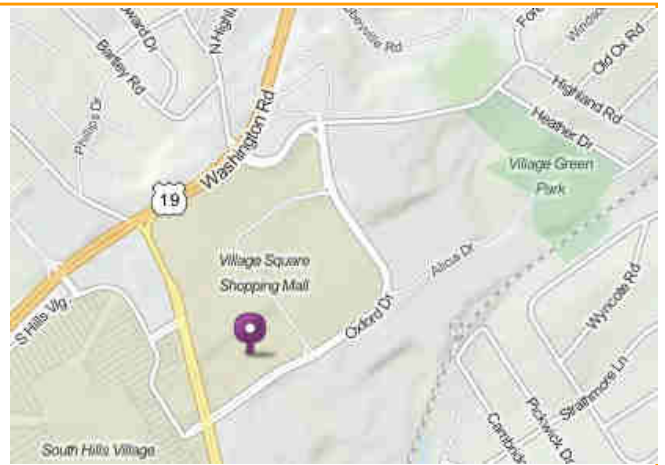


# 2024 WASH Meeting Location

**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

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

