

# the sPARC gap

Serving the amateur radio community & City of Portland Since 1941



Promote, advance, and have fun with amateur radio in our community

W7LT.org 2025 2<sup>nd</sup> Quarter

What a quarter! From POTA at Stub Stewart to the big Field Day weekend in Hillsboro, from microwaves at the May meeting to emergency comms in June, PARC members have been busy learning, sharing, and getting on the air. We've supported races, chased satellites, found foxes, welcomed new members, and even talked to an astronaut!

A special highlight this quarter was the Rose Festival special event station, W7R, where we set up right at the CityFair Fun Center and engaged with the public while racking up over 600 contacts. It was a great opportunity to showcase amateur radio in action and bring a little RF to the Rose City celebration. Thank you to all that supported this event.

If you're new to the club, welcome aboard! We're glad you've joined our community. There's always room for more curiosity, more skill-building, and more good conversation—whether on the air, on a net, or over pizza at our monthly meetings.

And keep your ear to the ground—we're working on a couple of exciting opportunities this fall, including potential events with OMSI and a chance to support a local school in making an out of this world contact. Exciting times ahead!

And speaking of excitement... Field Day gave my CW key such a workout I think it's eligible for a gym membership. At least my fist is now in peak contest shape. See you at the next meeting—or better yet, let's work each other on the bands!

73, Dan Presley, N7CQR
President, Portland Amateur Radio Club

# **Featured PARC Member**

## PARC Member Profile: Kathleen Kerns, K7KER



Ten years ago, Kathleen "Kat" Kerns would never have imagined herself as a licensed amateur radio operator, let alone building antennas, soldering ground systems, or participating in radio from mountaintops. But today, she's a familiar voice and friendly presence in the Portland ham radio community.

After relocating from San Jose to Portland, Kat joined the Community Emergency Response Team (CERT). In Oregon, CERT volunteers are encouraged to get their amateur radio license. That was the beginning of Kat's radio journey—earning her license in October 2019 and starting out with a Yaesu FT-70D handheld.

It didn't take long before Kat found herself looking for more than just listening to nets. "Checking in didn't feel like skill-building," she said, so she volunteered as a net control for Beaverton CERT, and later for Tigard CERT and Washington County ARES. She also became a backup net control for the ARES District 1 (D1) net, where nightly check-ins are mixed with news and conversation. That role became the spark for a new adventure.

One evening, Kat came across an article in QST magazine about Summits on the Air (SOTA). Already avid hikers, she and her husband Tony were intrigued. She summarized the article for the D1 net and asked if anyone had tried SOTA. Silence... and then Scott, KI7EMX, chimed in. A few months later, he invited Kat to activate Saddle Mountain (W7O/NC-002). He even brought a gift - a SOTA log and mini-clipboard to make things easier. That day changed everything.

Kat quickly followed up with her own activation of Bald Peak—Tony hoisting a J-pole antenna on a telescoping painter's pole—and then, with encouragement from Etienne K7ATN, she ventured into HF. Etienne helped with her first HF SOTA activation, gifted her a SOTA hat, and inspired her to build her own EFHW antenna. Soon, Kat had joined the Pacific NW SOTA group and invested in a KX2. She even taught herself to solder and built a 2-meter Yagi, which still gets use today.

Recognizing the value of CW for SOTA, Kat set off on a Morse code learning journey—from the Long Island CW Club to CW Academy. Over three levels of CW Academy classes, she studied with fellow operators from Poland, Bangladesh, New Zealand, and England. One classmate from New Jersey jokingly shortened "Kathleen" to "Kat" during an on-air exercise so she would have fewer letters to key—and the name stuck. These days, she's "Kat" to her radio friends.

Not one to do things halfway, Kat built a permanent home shack, complete with an Icom 7300 and a 40-foot antenna. She educated herself with the ARRL's Grounding and Bonding guide and installed a full copper grounding system by hand. "I highly recommend the book," she says. "It's thorough and helped me feel confident doing it right."



Kat's love of SOTA also travels well. On a recent trip to the Lake District in England, she reached out in advance to the SOTA manager for that area and was rewarded with hiking suggestions and a word of warning: "No trees for antennas. Just sheep." She packed a SOTABeams telescoping pole in her luggage and learned the right knots for guying. Along the way, she met up with operators she had met during her CW classes—some on the air, and some in person. And yes, the sheep were everywhere (like trees in Oregon).

For Kat, radio isn't just a technical pursuit—it's about community, exploration, and learning. Whether it was her early radio contributions operating as net control, or her current adventures working HF CW from a windswept ridge, she brings curiosity, enthusiasm, and a welcoming spirit to every contact.



# **Portland Area ARES & Emergency Training Nets**

**Oregon ARES District 1:** Daily 7:30 PM 147.32, 442.325, 444.400, 147.040 MHz repeaters http://www.oregonaresd1.us/wp/

Clackamas County ARES Sundays at 7 PM 147.120 &

444.225 repeaters, Echo Link AC7QE-R http://clackamasares.org/

**Washington County ARES** Tuesdays at 7 PM (except 3<sup>rd</sup> Tue) 145.450 MHz repeater http://washcoares.org/

**Multnomah County ARES** Wednesdays at 7 PM 146.840 MHz repeater PM https://multnomahares.org/

 $\textbf{Clark County ARES} \ \mathsf{Mondays} \ \mathsf{at} \ \mathsf{7} \ \mathsf{PM} \ \mathsf{443.925} \ \mathsf{MHz} \ \mathsf{repeater}$ 

https://www.ccareswa.org/calendar

**Portland Prepares Net Net** Sundays at 8:10 PM 147.040 MHz repeater https://portlandprepares.org/net-resources/radio/ham-radio-2/practice-opportunities-2/net-net/

**Oregon Traffic and Training Net** Mon, Wed, Fri, Sat at 6:05 PM KJ7IY Timber Repeater 145.27 MHz https://qsl.net/nttn/ (read website for back up repeater and simplex frequencies)

#### Other Portland Area Nets of Interest

**PARC Club Net** Tuesdays at 7:00 PM on 146.84 club repeater w7lt.org

**Linux User Net** every Monday 8:10PM-9:00PM 147.32, 442.325, 444.400, 147.040 MHz repeaters http://kc7nyr.com/linux/

The Outdoors Net every Thursday 8:05PM-9:00PM 147.32, 442.325, 444.400, 147.040 MHz repeaters https://theoutdoorsnet.net/

**HandiHam Net** Sundays at 7:00 PM on 146.84 club repeater

**Oak Lodge Net** Mondays at 7:30pm on 147.18 club repeater

**CW Practice Net** – Dan Presley N7CQR - Every Tuesday - 7 PM (local PST) on 28.160 and 8 PM on 3.550 KHz. Any speed or skill level is welcome!

# Find the Fox: July 19th Fox Hunt at Mt. Hood Community College

PARC member Denny Doolittle, WB7UFJ, continues to be a generous leader and mentor to the greater Portland radio community—rain or shine—by organizing bi-monthly radio direction-finding adventures. These fox hunts offer a unique way to sharpen your signal-locating skills while enjoying a bit of outdoor fun. Best of all, since participants are only receiving (not transmitting), no license is required to join. That makes fox hunting a perfect outing for curious friends and family members of all ages.

The May fox hunt was a great success. The weather held off, and fifteen hunters successfully located the hidden transmitters. As Denny reported, "No foxes were lost, and all hunters were accounted for."

Next Hunt: Saturday, July 19th

Meet at Mt. Hood Community College, Fisheries Building (#22), West Parking Lot

Start Time: 11:00 AM

Coordinates: 45.51856, -122.39172

Several low-power 2-meter transmitters will be hidden around the MHCC campus. This hunt introduces a new tech-friendly feature—QR code check-ins! When you find a fox, simply scan the card next to it with your phone camera for instructions. It's a fun way to track your finds and see how others are doing.

Whether you've built a directional antenna or just want to tag along and observe, come join the fun. As Denny says: "Radio Direction Finding is an art, not a science. It requires skill. You may need to practice to acquire that skill."

Bring your gear, bring the kids, and we'll see you—rain or shine—on July 19th!

For more info, contact Denny at WB7UFJ@arrl.net

#### Digital Library of Amateur Radio & Communications Receives Major Funding Boost

The Digital Library of Amateur Radio & Communications (DLARC), a project spearheaded by long-time radio enthusiast *Kay Savetz (K6KJN)*, is celebrating a significant milestone. In May 2025, DLARC received a generous second grant from *Amateur Radio Digital Communications (ARDC)* totaling \$319,110, ensuring continued growth and preservation of amateur radio's rich history. Kay, also a PARC member, spoke to the club about his archiving adventures in March 2025 (see the Q1 2025 edition of this newsletter for that story).

DLARC, housed within the Internet Archive, already boasts more than 140,000 items spanning decades of ham radio culture—from vintage newsletters and technical journals to rare audio recordings and video content. With this new round of funding, the team will digitize over 880,000 additional pages from collections held by the California Historical Radio Society and the SPARK Museum of Electrical Invention, among others.

In a light-hearted announcement, Savetz noted in the *Zero Retries* newsletter that there was still confetti on the DLARC floor, celebrating the opportunity to dig deeper into radio's analog past while broadcasting its future digitally.

The grant supports not just scanning and cataloging but also enhancing public access and building new partnerships with radio clubs, historians, and private collectors. It's a resounding win for the global ham community—ensuring that curious minds and aspiring hams will have access to decades of innovation, experimentation, and storytelling.

You can explore the library, contribute your own archives, or even help tag materials by visiting the DLARC homepage at: https://archive.org/details/dlarc

Sources: – DLARC Announcement via the Internet Archive Blog – *Zero Retries* Newsletter, May 2025 – ARDC Grant Information, https://www.ardc.net/

#### PARC Special Event Station W7R - Portland Rose Festival 2025 Recap

Each year, amateur radio operators across the country celebrate history, heritage, and community through *special event stations*—temporary call signs and operations that mark noteworthy events. These stations not only commemorate the occasion but also spotlight the public service and technical achievements of ham radio.

The inaugural Portland Rose Festival was in 1907 following the 1905 Lewis and Clark Exposition. The Rose Festival celebrates Portland, the City of Roses and features three parades, fleet week, rose show, and dragon boat races. The Special Event Station was active between May 30 and June 9th.



This year, the Portland Amateur Radio Club was proud to sponsor Special Event Station **W7R** in celebration of the 2025 Portland Rose Festival. Over a 10-day period, W7R made an impressive 602 contacts, connecting with stations across the country and around the world.

For four of those days, PARC set up on-site at the Rose Festival City Fair, where club members engaged directly with the public. The station served as a live demonstration of amateur radio's capabilities—especially its vital role in emergency

Ken, AI7LF	Addison, WF7Q	Dan, KK7VYJ
Jim, K8SUB	Denny, WB7UFJ	Steve, KK7GFI
Arvind, AJ7AY	Bob, KK6WLU	Alan, N7AKG
Nick, KK7PTT	Gary, KK7PJM	
Kathleen, K7KER	Hailey, KN6NVO	

communications—and as an invitation to explore ham radio as a rewarding, community-oriented hobby.

A heartfelt thank-you goes to the club members who volunteered their time to operate W7R and represent PARC. Your time and effort made this event a success, and your outreach helped inspire the next generation of radio operators!









## **PARC Members Attend SEA-PAC 2025**

SEA-PAC, the Northwest's largest ham radio convention and the official ARRL Northwestern Division Convention, was held in Seaside, Oregon from Friday, May 30 through Sunday, June 1. Nearly 1,800 attendees enjoyed a full weekend of hands-on workshops, a well-stocked flea market, vendor exhibits, and a wide array of educational seminars. Plenty of "eyeball QSOs" were made between operators who had only previously met on the air.

Friday featured two sold-out workshops: *Practical EmComm* and *DMR Radio*. The DMR session offered an optional upgrade, allowing participants to leave with a fully programmed, functional DMR radio. That evening, the popular *Radios at the Beach* 

event took place near the Seaside promenade. While many worked their mobile QRP setups, one operator wowed the crowd by firing up a full-size Collins HF tube rig—an impressive sight and sound!

Saturday brought classic Oregon weather—light sprinkles throughout the day—but all events took place indoors at the Seaside Convention Center.
Seminars covered a wide range of interests: using the

Seen at SEA-PAC:		
Paul KI7ADC	Raoul W7RPS	Gary K7VBY
Max K7MAX	Ken C. K7BXI	Sean B. KK7OVF
Bob G. KK6WLU	Bob C. W7JNM	Dana K6BRR
Dan N7CQR	Ken M. AI7LF	Denny WB7UFJ
Mike KF6YAL	Sean KD7YXS	

latest logging software, understanding and building antennas, portable power, ARES, emergency communications, DX & YL luncheons, pirate radio, and more.

The Saturday evening banquet drew over 200 attendees. Arnie Klein, WB6OEE, served as master of ceremonies, keeping the agenda light and lively while promoting his tongue-in-cheek proposal: *Pirates on the Air (PirOTA)*. Whether working DX from home or checking in to a local net, participants would "talk like a pirate" on the air for a day—"QSL matey, you're 59 argh!" Arnie reminded us that amateur radio is about communication—a mutual sharing of information that builds social networks, community, and camaraderie. As different as we are, we need each other.

ARRL officials and directors also spoke during the evening, with keynote speaker Gordon West, WB6NOA, delivering an entertaining message.

Sunday offered more seminars, prize drawings, and vendor booths from numerous amateur radio related equipment manufacturers, developers, and retailers. SEA-PAC truly offers something for every ham, from beginner to seasoned operator.



PARC was well-represented throughout the weekend. A special thanks goes to Paul, KI7ADC, who served on the SEA-PAC planning committee. Volunteers like Paul work behind the scenes all year to make events like this possible, and we appreciate their time, energy, and dedication. Hope to see you at SEA-PAC in 2026! ~ See seapac.org for more information and to plan for your attendance in 2026





#### A New Eye on the Horizon: Air Force Radar Coming to Oregon

Oregon is about to step into the national defense spotlight. The U.S. Air Force has announced plans to build two over-the-horizon (OTH) radar systems in the state, marking a major development in America's missile defense and early-warning capabilities—and a fascinating topic for the amateur radio community.

## **Oregon's Radar Legacy**

While Oregon has no large federal military bases, it has an important radar history.

- Christmas Valley Air Force Station: Established during the Cold War, this 2,622-acre site near Christmas Valley
  served as the transmitter station for the West Coast's AN/FPS-118 over-the-horizon backscatter (OTH-B) radar
  system. Built by GE Aerospace and operated by the 777th Radar Squadron, the system was designed to detect
  threats like bombers or missiles up to 3,300 km away by bouncing radar signals off the ionosphere.
- Cold War to Closure: Construction, completed in the early 1990s, cost around \$275 million, but the fall of the Soviet Union rendered it obsolete. The station entered "warm storage" in 1997 and "cold storage" in 2002, with most equipment was removed.





Photos by: By Hicks, Robert, creator - https://www.loc.gov/pictures/item/or0553.photos.366299p, Public Domain, https://commons.wikimedia.org/w/index.php?curid=34438351

Today, parts of the Christmas Valley site are used by the Oregon National Guard and for emergency management storage.

#### **How Over-the-Horizon Radar Works**

Unlike conventional radar, which is limited by the Earth's curvature, OTH radar overcomes this by using the ionosphere—about 50 miles above Earth—as a reflective surface. Here's how it works:

- Transmit: A high-frequency (HF) radio signal, typically between 5–35 MHz, is transmitted from a large ground-based antenna.
- Bounce: The signal reflects off the ionosphere, then hits distant targets like ships, aircraft, or missiles, and bounces
- Receive: A separate receiver array picks up the return signal, which is then processed to track the object's location, speed, and heading.

This "radio bank shot" allows the system to detect threats thousands of miles away, day or night, even in challenging conditions like auroral activity.

# Who's Building It?

The new OTH radar systems in Oregon are being developed by RTX (Raytheon Technologies), a U.S. defense contractor. RTX has over 30 years of experience with high-frequency radar and built the Navy's Relocatable Over-The-Horizon Radar (ROTHR), used for border security and maritime monitoring.

#### Where and How Big?

According to the Air Force, two transmitter arrays will be installed near Christmas Valley, Oregon and two receiver arrays will be placed at Whitehorse Ranch, Oregon. Both are remote, unincorporated areas. OTH radar sites require significant land. The Christmas Valley transmitter site alone spans over 2,600 acres, with antenna fields sometimes stretching more than a mile. Arrays may consist of hundreds of towers ranging from 35 to 135 feet tall. Environmental review is expected to finish by fall 2027, with construction potentially beginning in late 2028.

# **Radio Frequencies Involved**

The systems will operate in the high-frequency (HF) band, between 5 MHz and 35 MHz—well within the spectrum familiar to amateur radio operators. While the military systems are highly directional and designed to avoid interference, hams should be aware of potential impacts, particularly on the lower HF bands. These radar systems are effectively large-scale HF propagation experiments, using the same ionosphere that amateur operators rely on. While protected under military and government allocations, these installations are another reason to stay informed about spectrum usage.

# PARC April POTA Party - Stub Stewart State Park



Parks on the Air (POTA) traces its roots to the ARRL's 2016 *National Parks on the Air* (NPOTA) event, a one-year celebration of the National Park Service centennial. The idea was sparked by former ARRL PR Manager Sean Kutzko, KX9X, who proposed the concept to Norm Fusaro, W3IZ, then Assistant Membership & Volunteer Programs Manager. Their proposal was enthusiastically embraced and officially approved by the ARRL Board of Directors in July 2015. The success of NPOTA inspired an ongoing, grassroots movement—POTA—that extends the same energy and spirit yearround. As one early fan summed it up, "The idea is simply: every day is Field Day. That is, you take your radio gear to one of thousands of state or national parks, make ten contacts, and thus activate the park." Today, POTA encourages operators around the world to combine their love of the outdoors with amateur radio, fostering community, on-the-air activity, and fun.

While Parks on the Air (POTA) has surged in popularity in recent years, it wasn't the first "On The Air" program. That honor goes to Islands on the Air (IOTA), established in 1964, followed decades later by Summits on the Air (SOTA) in 2002 and various lighthouse-related programs. POTA, born from the ARRL's 2016 National Parks on the Air event, helped reignite interest in portable operating and sparked a new wave of creative OTA themes. Since then, operators have launched programs like Castles on the Air, Bunkers on the Air, Fire Lookouts on the Air, and more (Zoos, Museums, Libraries... even Drive-Thrus on the

Air)—each celebrating a unique mix of radio, exploration, and fun.

The Portland Amateur Radio Club joined in the spirit of POTA on Saturday, April 19th during the Spring "Support Your Parks" event, with a group activation at Stub Stewart State Park (POTA reference US-2838). Nearly thirty club members made their way to the Hilltop Day Use Area for a cool but sunny day of antennas, activations, and camaraderie.

POTA Attendees from the log:				
Ken AI7LF	Jim K8SAT	Dan KA7FIP	Uni KI7BXT	
Kathleen K7KER	Paul KE7OLU	Dick K7DVK	Jamie HW7WP	
Max K7MAX	Dan N7CQR	Kevin N6KVN	Cat KK7WHZ	
David KN6HFV	Benton NX70	Dan KK7WLU	Bridget	
Steve KK7GFI	Addison WF7Q	Raoul W7RPS	Matt	
Hailey KN6NVO	Sean KK7OVF	Mike KF6YAL	Rose	

Setup began at 9:00 AM with the assembly of the club's Buddihex antenna—a multiband hexbeam capable of simultaneous operation on 10, 15, and 20 meters, thanks to a triplexer and VA6AM band-pass filters. A 40-meter vertical and a VHF antenna rounded out the setup, offering flexibility across multiple bands. The club provided radios but operators also brought their own



rigs, keys, and logbooks to work the bands and chase that coveted 10-QSO minimum to "activate" the park.

In addition to HF operation, the event included a demonstration of satellite operation. Sean, KK7OVF, brought a satellite antenna and full-duplex radio, and a number of members looked on a cheered for Raoul, W7RPS, as he successfully made his first satellite QSO through SO-50, connecting with AK8CW/R. Also on the ground, Kathleen, K7KER, unveiled her new foxhunting transmitters and offered hidden transmitter practice for anyone wanting to sharpen their direction-finding skills.

Of course, no PARC gathering would be complete without good food. At noon, the group enjoyed a BBQ with burgers and hotdogs—an energizing interlude before diving back into the bands – a big Thank You to Ken and all for the great lunch. A number of park visitors also stopped by to see what all the action was about. The club had their banners up and is always ready to engage with the public.

Whether you were on the air, on the trails, or just enjoying a sunny day with radio friends, the 2025 PARC Spring POTA Party was a great fun.



# Field Day 2025 Recap: Radio Connects at W7LT

The 2025 ARRL Field Day brought the national spotlight to the importance of amateur radio with the theme "Radio Connects"—a celebration of the many ways wireless technology brings people together, whether across neighborhoods or across continents. At PARC, we did just that with a great turnout, an energetic setup, memorable meals, and more than 400 logged contacts under the club call sign W7LT.

## Setting the Stage in Hillsboro

This year's event was hosted at the Hillsboro property of PARC VP Ken Al7LF, with generous support from his neighbor Bob Jossy, who provided a large tent used for operations. Thanks to all who came out



Friday to set up (and Sunday to tear down)—about sixteen volunteers made lighter work of a big task. Several operators, including Dan Presley, Sean Borgerson, and Ken Milnes, stayed overnight in an attempt to keep the 24-hour operation running.

# **Two Tents, Countless Connections**

We ran two primary stations across the road from each other:

- A CW tent, featuring two CW stations using a Buddihex antenna with triplexer and band-pass filters.
- A multi-mode operations tent with digital and voice stations, a GOTA (Get On The Air) station for newer hams and those unlicensed but interested, and a VHF/UHF station operating FM on 2m/70cm and FT8 on 6m.

The antenna farm was a sight to behold: a DXCommander multiband vertical, 160-meter sloping wire, 6m Moxon, 2m/70cm Yagi, and more.

## **Final Contact Figures**

PARC logged a total of 411 contacts:

CW: 244 contacts

Digital: 118 contacts

• Phone: 49 contacts

Our most productive bands were 20 meters (164 contacts) and 15 meters (106 contacts), and we made solid use of satellite, 40m, and 80m as well. Contacts came from across 71 ARRL sections and 51 U.S. states or Canadian provinces, with a few DX surprises from Japan and France.

Total	Contacts	by Band	and Mode	2:	
Band	CW	Phone	Dig	Total	%
80	4	3	27	34	8
40	26	13	28	67	16
20	145	4	15	164	40
15	69	0	37	106	26
6	0	0	10	10	2
SAT	0	29	1	30	7
Total	244	49	118	411	100

Total Contacts by Country:		
Country	Total	%
USA	389	95
Canada	12	3
Hawaii	4	1
Alaska	3	1
Japan	2	0
France	1	0
Total = 6		

#### **New Skills and Elmering in Action**

Field Day was also about learning. From knots for guy lines and logging tips to NanoVNA demos, digital mode tutorials, and antenna management hacks, there was plenty of knowledge shared. Mike Boosalis KF6YAL improved his CW skills with 26 contacts logged, and our GOTA station gave several newer hams a chance to build confidence (and demonstrate patience trying to break through a pile up using 5 watts QRP).

## Food, Friends, and Fantastic Hospitality

A huge thank you to Dan Brazelton, KK7VYJ, who went above and beyond to keep the crew well-fed:

- Friday: beef and veggie dogs
- Saturday: hot dogs, hamburgers, and dinner of Cajun chicken jambalaya
- Sunday: breakfast burritos that fueled the final push

Coffee, cookies, chips, and snacks were also available to grab and go (no liquids on the radio tables please).

#### **Public Outreach**

Thanks to an online article in the *Hillsboro News-Times* published just before the event, a number of visitors stopped by to see the action and learn more about emergency communication. We hope they felt welcome, informed, and inspired.

#### Satellite Success and a Special QSO

In coordination with AMSAT's concurrent Field Day event, PARC logged 5 FM and 25 SSB QSOs via satellite for points and a few extra for fun. Well done to Steve KK7GFI and Arvind AJ7AY for making some of their first satellite contacts. A highlight – On Sunday morning, Sean KK7OVF made contact with astronaut Nichole Ayers (KJ5GIW) onboard the ISS (operating as NA1SS), making for a truly out-of-this-world Field Day moment.

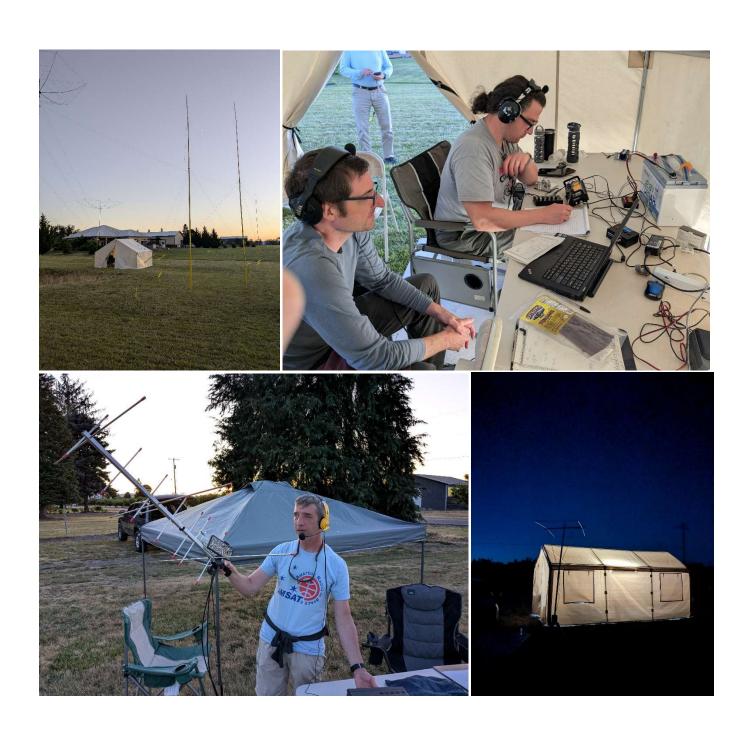
# In Total

A total of 38 operators (including 33 licensed amateurs) signed into the club log throughout the weekend. It was quite a turnout for PARC's Field Day festivities—combining technical skill, outreach, camaraderie, and a whole lot of fun.

Stay tuned for next year—and in the meantime, let's keep connecting. (\* denotes set up / teardown participants)

2025 Field Day Club Parti	cipant Log:		
Alan West AJ7EE *	Dan Presley N7CQR *	Jamie Heim KW7WP	Ken Cone K7BXI *
Fred Stuart KJ7ARS	Dan Brazelton KK7VYJ *	Lilith Rockett – No Call	Bob Cady W7JNM *
Jeff Kayser K3JDK	Arvind Nayak AJ7AY	Eliot Rockett – No Call	Wesley Hurley – No Call
Eugene Lee KI6ARD	Anjali Nayak – No Call	Stephen Saltzman AE7NW	Jenna Hurley N4JEH
Hailey Clark KN6NVO	Denny Doolittle WB7UFJ *	Wayne Spawn WA7NE	Gunner Rogers KK7DEU
Rose Proctor – No Call	Mike Boosalis KF6YAL *	Pete Rodabaugh W7PR	Sean Borgerson KK7OVF *
Max Sabo K7MAX *	Addison Schuhardt WF7Q	Mike Schilmoeller AE7XP *	Nick Appelmans KI7PTT *
Gail Rodgers KF6NLD	Jim Toothaker K8SAT *	Stephen Tarr KD7MRX	Gary Miller KK7PJM *
Bill Putney WB6RFW	Ken Milnes AI7LF *	Sean Rose KD7YXS *	
Steve Granmo KK7GFI *	Uni Heim KI7BXT	Laura Rodgers KI7ZZQ	





















# Dits and Dahs - Updates from Members and Friends, Lightly Filtered

**Ken AI7LF** - After a disastrous attempt to raise my hexbeam on a 40 steel sectional mast without enough help, I succeeded with a person on each guy wire. It is a great antenna.



Addison WF7Q - Field Day inspired me to tackle my first CW-only POTA activation on Tuesday (US-9979). I took the opportunity to test a 20-meter dipole that I built last week. The park's elevation helped quite a bit, and I was able to make ten contacts in an hour, all the while struggling to keep insects out of my gear. The repetitive POTA QSO format convinced me to build an automatic CW keyer with macro buttons, since my radio's stored message feature isn't easily accessible. That's what I'm working on the rest of the week between my day job and binging Game of Thrones with my partner.

**Mike KF6YAL -** I'm currently working on CW head copy proficiency. My goal is to get to 15 WPM and be able to activate POTA at that speed.

Kay K6KJN, curator of the Digital Library of Amateur Radio & Communications, reports that the free online ham radio library has added 130+ issues of AMSAT Satellite Report newsletter and 51 issues of AMRAD Newsletter, published by Amateur Radio Research and Development Corporation. He's also added a new Packet Radio History collection which includes historical technical documents from the U.S. government's Defense Technical Information Center, and scans of thousands of papers documenting the early development of packet radio, including the newsletter of the Pacific Packet Radio Society. https://archive.org/details/dlarc. Contact Kay at kay@archive.org

**Wayne, WA7NE**, acquired a new S.A.T. controller from CSN and will have a 10' tower for mounting his 2m, 70cm and 23cm satellite antennas on a fiberglass cross boom with AZ-EL control coming from the CSN SAT

controller. His radios include a Kenwood TS-2000 and an Icom IC-9700. His setup is for a fixed station, but he hopes to be able to allow remote control for PARC members to work the satellites.

Wayne commented that he had worked for RCA Cylix, a company that operated a nationwide data transmission network using satellite technology, linking client computers. He managed 11 earth stations located west of the Mississippi River for RCA Cylix. He's excited about working the ham 'birds'.

## **Welcome to Our New Members!**

<b>ROSE No Call Yet</b>	KERRY NE7B	LILITH No Call Yet
JOHN KI7IJX	JACK KJ7DGH	<b>ELIOT No Call Yet</b>
MATT No Call Yet	PAUL KI7ADC	<b>HOLDEN No Call Yet</b>
DANIEL KM7AXZ	DAVID KK7AWP	SASCHA No Call Yet
JIM N7NXJ	ANJALI No Call Yet	ALAN AJ7EE

We're excited to welcome all our new members to the Portland Amateur Radio Club! Whether you are brand new to the hobby or a seasoned operator, we're glad to have you with us.

Zoom is great for staying connected, but nothing beats sharing stories and slices in-person at our monthly meetings—yes, there's pizza! Baked

goods are also welcome. Come early for the Elmer Help Session and Social Hour before the meeting. It's a great chance to get acquainted, ask questions, get advice, or share your own experience with others.

Be sure to check out the club calendar at the end of this newsletter for upcoming activities. There's something for everyone, and it's a great way to learn, operate, and have fun with fellow hams. Current members - Many of our new members joined us to meet other hams, explore radio technology, and learn more about emergency communications. Take a moment to introduce yourself at the next meeting, ask about their interests, and help them find ways to get involved.

Welcome aboard - 73!

# PARC REMOTE ACCESS FLEX 6600 HF RADIO

Don't forget that the club's new remote FLEX 6600 HF radio is now operational and available for use by all club members. This state-of-the-art SDR radio is accessed through the internet and SmartSDR applications on your Windows and Mac computers. It works great with iOS and Android apps.

The antenna is an 80-6 meter DX Commander vertical antenna, perfectly situated in a quiet RF environment, ensuring optimal performance for all your HF contacts. Whether you're into SSB, digital, or CW contacts, this FLEX 6600 HF radio is an excellent choice, providing clear and reliable communication.

The station is remotely managed with the Station Controller provided by George Zafiropoulos, ZKJ6VU. George generously included PARC in the beta test of the Station Controller which is giving us the ability to remotely power cycle, manage, and register the radio with Flex Radio.

To gain access to this great resource, please contact Ken, AI7LF at ai7lf@w7lt.org. He will provide you with the necessary instructions, username, and password to get on the air with this radio.

#### April 2025 Meeting Recap: POTA & SOTA Tips with Thomas K4SWL

For our April meeting, the Portland Amateur Radio Club was pleased to welcome guest speaker Thomas Witherspoon, K4SWL, who shared a wealth of knowledge and experience on operating successfully in the field with Parks on the Air (POTA) and Summits on the Air (SOTA).

Thomas is not only an active operator but also a passionate shortwave listener. He curates a number of well-known online resources—QRPer.com, The SWLing Post (swling.com/blog) and the Shortwave Radio Audio Archive (shortwavearchive.com)—and is a frequent guest on the Ham Radio Workbench podcast. His background brought a well-rounded, thoughtful perspective to portable operating.

Thomas organized his presentation around five key aspects of successful activations:

#### The Radio

He began by reviewing a wide selection of QRP radios available today, emphasizing that there's no one-size-fits-all—each operator needs to balance performance, durability, and ease of use when selecting gear for field use.

#### **The Antenna**

Antennas were another major topic, with a focus on effective yet portable options. Thomas discussed local Oregon-made products like the PackTenna, and highlighted the constant trade-off between antenna efficiency and ease of deployment. A clever visual graph helped attendees understand how setup time and performance intersect.

# The Pack

Field operators know that how you carry your gear matters. Thomas stressed the value of a compact, comfortable, and weather-aware setup. He advised having a pack that holds everything—including logging tools, batteries, CW paddles, and shelter—in a way that can handle rain, sun, and a rough trail.

# The Right Spot

Perhaps the most thoughtful section of the talk centered on choosing a good location. Thomas shared a checklist of do's and don'ts:

- Stay within the official activation zone.
- Be mindful of your surroundings: avoid heavily trafficked paths, marinas, or visitor centers that could cause interference or distractions.
- Consider needed antenna support and availability of trees or a picnic table
- Protect your gear and yourself from exposure to wind, cold, and intense sun.
- Use high-visibility coax or flags to reduce trip hazards.
- Preserve the viewshed—don't set up in a way that obstructs scenic viewpoints.
- He also reminded us to consider donating to the parks we visit—both as a goodwill gesture and to support the spaces we enjoy.



Thomas is a strong advocate for paper logging in the field, saying it helps keep him "in the moment." He photographs his logbook pages for backup and transcribes them into software later. That said, during large or fast-paced activations, he sometimes opts for direct electronic logging to keep up.

Thomas's presentation offered a practical, respectful, and community-minded approach to POTA and SOTA. Whether you're new to field ops or a seasoned activator, his insights were a great reminder that success comes from planning well, respecting the environment, and enjoying the adventure. If you are looking for more insights from Thomas, check out his videos - https://www.youtube.com/@ThomasK4SWL

# May 2025 Meeting Recap: Emergency Communications with Multnomah County ARES

At our May club meeting, we were pleased to welcome Deb KK7DEB and Eliza W7ELI, two longtime amateur radio operators and leaders in Multnomah County ARES (MCARES). With nearly 20 years of volunteer experience in emergency communications, Deb and Eli shared their personal ham journeys and provided a detailed look at the mission, training, and impact of the local ARES group.

Both Deb and Eli were first licensed in 2005 and got their start in emergency communications by joining Clackamas County ARES, where they quickly developed their foundational skills through active participation and hands-on training. In 2007, they transitioned to Multnomah County ARES, their home county, where they have since taken on key leadership roles—Deb as the Emergency Coordinator, and Eli as the New Member Trainer.



Under their leadership and with the help of dedicated

volunteers, MCARES has grown significantly in membership and capability. The team has successfully obtained grant funding to enhance its operational readiness, including the development of emergency communication trailers for both the east and west sides of Portland. MCARES members have also built reliable go-boxes equipped with VHF/UHF radios to ensure rapid deployment when disaster strikes.

Thanks to years of consistent collaboration, Multnomah County ARES now enjoys a strong, trusted relationship with the Multnomah County Office of Emergency Management, helping ensure amateur radio remains a critical part of the region's emergency response plan.

To learn more or to get involved, visit: multnomahares.org, arrl.org/ares, or multco.us/departments/office-emergency-management

# June 2025 Meeting Recap: Exploring the 10GHz Frontier - KK6WLU Presents on Microwaves in Ham Radio

At the May 2025 meeting of the Portland Amateur Radio Club, members were treated to a wide-ranging presentation by Bob Grange, KK6WLU, titled "Microwaves in Ham Radio." With his background in both UK and U.S. amateur radio, Bob brought deep insight and contagious enthusiasm to the subject of microwave communications—especially operations at 10 GHz and above.

The presentation opened with a historical tour, tracing microwave development from World War II radar innovations to present-day amateur experimentation. Central to this history is the invention of the cavity magnetron, a key wartime technology that not only enabled radar but also inadvertently sparked the invention of the microwave oven.

Bob showcased several pioneering amateur achievements, including the 1946 10GHz contact between W2RJM and W2JN and the remarkable 427 km contact on 3 cm made in 1960 between Oregon station W7JIP/7 on Mary's Peak and W7LHL/7 on Green Mountain in Washington—an achievement that stood as the world record for over 15 years.

In addition to the technical evolution of gear—from early klystrons to today's solid-state devices and integrated transverters—Bob explored the role of atmospheric phenomena in enabling long-range microwave QSOs. Attendees learned about super-refraction, troposcatter, knife-edge diffraction, and even auroral reflection. These topics came to life with visual simulations and real-world examples, including a modern 2,732 km record-setting QSO across Australia using JT4f mode on 10GHz.

Bob also touched on propagation enhancement strategies and recent advances in 10GHz home station design, with a nod to British engineer Charlie Suckling, G3WDG, whose equipment helped standardize narrowband microwave operation in the UK.

Whether you're an aspiring microwave operator or just enjoy hearing about the edges of what's possible in amateur radio, Bob's presentation was a reminder of how curiosity, experimentation, and atmospheric serendipity combine to push the boundaries of communication.

To dig deeper into some of the topics Bob covered, including auroral effects and wave behavior, members can find links to simulations, historical references, and technical papers by accessing the presentation posted on the club website.

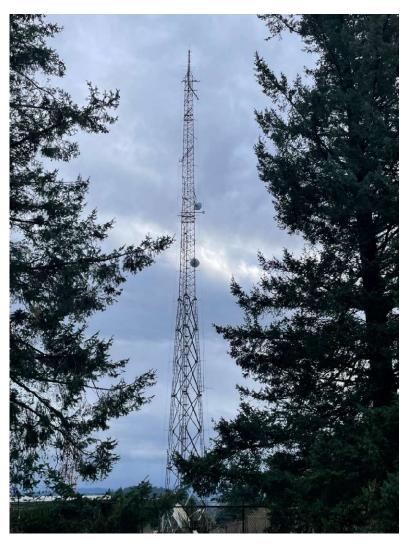
# Generosity All Around - Supporting PARC's Future - Special Thank You

Dan Presley, PARC President, convened a special PARC board meeting on June 23, 2025 for the board to vote whether to accept the donation of a commercial tower for Mt Scott. The vote was unanimous in favor. Dan noted that a generous donation from a former PARC president and current board member Pete Rodabaugh, W7PR, has helped to make this happen. "I want to thank Pete on behalf of the club for helping to capitalize on this opportunity!"

The tower currently resides at 9700 SE Eastview Drive, Happy Valley, OR. This is the site of the former KKPZ broadcast station. The property owner, Vertical Bridge, a tower leasing company, had offered the tower to PARC as a donation.

The tower was built by Pirod, Inc. and erected at Mt Scott in 1987. It is a three-leg solid rod tower standing 170 feet high. PARC once had its VHF and UHF antennas on this tower when Crawford Broadcasting owned and operated the AM broadcast station, KKPZ. The basic design of this rugged tower is still in production.

Vertical Bridge is donating the time and equipment to dismantle. Pete is funding the move to PARC's Mt Scott repeater site where it will be stored. The timing of the next phase, the erection of the tower, will require a funding campaign. "The tower may be in storage for several years awaiting funding, but hopefully it will happen sooner", according to Pete Rodabaugh, W7PR, Station Trustee.



The Repeater Chairperson, Wayne Splawn, WA7NE, commented that the tower will be a great improvement over the 25-foot masts now used at Mt Scott. In addition, the tower will provide much improved RF views to the south into the Willamette Valley and to the west beyond the West Hills. It is large enough to host other ARC's antennas and AREDN 5 GHz equipment. PARC's primary repeater, 146.84 MHz, located on Larch Mountain, WA is often inaccessible in the winter at 3,480 feet in elevation. The Mt Scott site is in the metro area and far more accessible in the winter at only 1,091 feet. The acquisition of the tower is a big win for the ham community in the metro-area, to ARES groups that provide public service and for the evolving AREDN network. *Inset is a picture of the radio tower as it currently stands* 

#### **PARC's Winlink Service to the Community**

PARC's Winlink node operating at Mt Scott is a bit unique. It can receive or send either the traditional AX-25 protocol used by venerable TNCs or a newer and faster protocol known as VARA FM. VARA FM offers speeds up to 1,188 bps for unregistered software versions while a licensed version of the software can reach a theoretical maximum of 25,210 bps. PARC is running a registered version known as VARAFM-Wide and it is quite fast. In comparison, a TNC operates at 1,200 bps.

Steve Granmo, KK7GFI, is a PARC member who is the sysop for PARC's Winlink station. Steve has the capability to remotely access the Winlink PC and resolve problems that may arise. The system is very stable, but Window Updates manages to impact the system periodically.

Please feel free to contact either Steve, KK7GFI, or Wayne, WA7NE, if you would like more information or need assistance.

#### PARC Repeater System - Maintenance, Improvements, and New Efficiencies

PARC's three repeaters were fully operational but May and June were busy months for some members of the repeater committee.

The 147.18 repeater on Mt Scott experienced some interference that presented itself as intermittent echoing; think reverb-sound-effects. John Rollins, KD7BCY, was on site on June 9<sup>th</sup> to run some tests. He removed the PA from the system and programmed the spare Yaesu DR2X Fusion repeater to replace the active repeater. The PA will be added to the system later in July since further inspection showed there was a bad power cord. There have been no further reports of the echoing problem since John's visit.

Pete, W7PR, and Wayne, WA7NE, worked on tasks in May and June to draw outside-air into the Mt Scott building in order to reduce air conditioning requirements (and costs). A ducted fan was added in May which has proven to be very effective. Pete is currently working on adding an actuator motor to the HVAC system's fresh air damper. This will be controlled remotely to open or close the damper as needed; open for fresh outside air and closed while either heating or running the air conditioner.

Pete, W7PR, has been working hard to coordinate the donation of a 170' comm tower for Mt Scott. The tower is expected to be delivered into PARC's hands sometime in August. The donation would not have happened if not for Pete's efforts and dedication. To tell the whole story of his efforts and his work with professionals in the tower industry would take several pages. Suffice it to say that Pete has managed to acquire a significant tower asset for PARC.

# Oregon Declares June 2025 Oregon Amateur Radio Month

By Gubernatorial proclamation... June 2025 was Amateur Radio MONTH in Oregon!

	STATE OF OREGON
	PROCLAMATION
	OFFICE OF THE GOVERNOR
WHEREAS:	The State of Oregon has more than eighteen thousand FCC-licensed Amateur Radio operators; and
WHEREAS:	Amateur Radio operators have demonstrated their value in public assistance by providing emergency radio communications during storms, wildfires and other disasters; and
WHEREAS:	Amateur Radio operators provide services free of any charge to the communities in which they live, in the interest of the citizens of Oregon and the world; and
WHEREAS:	Seaside, Oregon, and the Amateur Radio operators of Oregon host ARRL's Northwest Division Convention from May 30-June 1, 2025; and
WHEREAS:	Amateur Radio operators publicly practice their communication skills during the American Radio Relay League's Field Day exercise, June 28-29.
NOW, THEREFORE:	I, Tina Kotek, Governor of the State of Oregon, hereby proclaim June 2025 to be
	AMATEUR RADIO MONTH

Upcoming Club and Regional Calendar			
PARC Club	PARC Club Net Tuesdays at 7:00 PM on 146.84 club repeater W7LT		
Dates	Event		
July 7	Board Meeting		
July 14	Club Meeting		
July 19	East County Fox Hunt		
July 26 & 27	Hood Hundred race support – Mt. Hood Meadows area		
August 4	Board Meeting		
August 11	Club Meeting		
August 15 - 17	2025 PNW DX Convention - Clackamas, OR		
Sept 1	Board Meeting		
Sept 8	Club Meeting		
TBD - Sept	Club POTA		
TBD - Sept	East County Fox Hunt		

# A Note to PARC Members – From Bob Cady W7JNM and Ken Cone K7BXI

Dear PARC members, A quick note from the Long Island CW Club Kids Classes, that two of your members lead, and you so generously donated radios too. The four young people that received those radios have been very active, including one at Dayton Hamvention and one at Sea-Pac. The one at Sea-Pac is our very own Zeke who was demonstrating his antenna tracking system for the ISS contact he did for his school. All four are active hams and on the air with all modes including CW. One is actually designing a 50W amp for a QRP radio. It is though the generosity of hams like you that we are able to get these young people on the air and active radio operators. We currently have about 35 active students and have taught around 300 over the past 5 years. One of our young ladies made a wonderful presentation at the Youth Forum at Dayton. I have attached a picture of her also. She is from a family of 8 kids. Her dad is a ham and had equipment for her already. She is an Extra Class at 10 years old and does CW at 20 wpm.









Thank you to everyone who contributed to this quarter's newsletter, including – Dan P. N7CQR, Ken M. AI7LF, Addison S. WF7Q, Pete W7PR, Wayne WA7NE, Bob C. W7JNM, Ken C. K7BXI, Kay K6KJN, Denny WB7UFJ, Kathleen K7KER, Mike B. KF6YAL, and Sean KK7OVF. Thank you to Kathleen K7KER for sharing her story with us.

Your PARC member articles and contributions are welcome and encouraged!