



the sPARC gap

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



W7LT.org

2026 1st Quarter

As we turn the corner into April, it's hard not to feel the shift. The days are getting longer, the rain is (occasionally!) letting up, and the Pacific Northwest is starting to remind us why we put up with winter in the first place. For those of us in amateur radio, it also means one thing - it's time to get back outside.

This past quarter was a great reminder that our club shines when we're doing exactly that: getting outside and on the air, and doing it together. Winter Field Day was a perfect example. Operating in cold and windy conditions isn't always glamorous, but it's real-world practice, and PARC stepped up in a big way. More importantly, it was a weekend full of learning, problem-solving, plenty of laughter, and very good food. More outdoor radio adventures are coming up, including the club's April 18th POTA party at Stub Stewart and the Tillamook Burn Trail event on May 16th/17th. (Tillamook event: Max K7MAX max@NOLTRA.com)

One theme that stood out to me this quarter is connection, not just over the air, but between people. We welcomed new members and shared knowledge across experience levels. Those moments remind us that while radios and antennas bring us into the hobby, it's the people who keep us here.

Looking ahead, spring and summer offer endless opportunities. Parks, summits, coastlines, and backyards are all calling. Whether it's a quick POTA activation, joining a fox hunt, experimenting with a new setup, or just getting on the air from somewhere new, I encourage you to take advantage of the season.

As always, thank you to everyone who contributes their time, energy, and enthusiasm to PARC. This club works because of you. I look forward to seeing you, on the air and in person, in the months ahead.

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

PARC on the Air for Winter Field Day 2026

The Portland Amateur Radio Club participated in the 2026 Winter Field Day (WFD) operating as W7LT, joining thousands of stations across North America practicing portable radio operations under winter conditions. Ken AI7LF, PARC vice president, generously hosted the event on his and a neighbor's property in Hillsboro. Winter Field Day is designed to encourage amateur radio operators to test their ability to deploy and operate communications systems in cold, unpredictable environments, conditions that often mirror real emergency situations.

Unlike traditional Field Day held in June, Winter Field Day emphasizes preparedness during harsh weather, where freezing temperatures, snow, ice, and limited daylight can present additional challenges.

The event's guiding philosophy is simple: disasters rarely occur under ideal conditions, so radio operators should practice operating in the same kinds of environments where emergency communications might actually be needed.

PARC's station performed extremely well in the competition:

- 2nd place in the Mobile category
- 13th place overall



Across the entire event, a total of 2,594 logs were submitted by stations operating from home, indoor, outdoor, and mobile categories.

PARC operators made an impressive number of contacts across multiple modes: CW 425 QSOs and Phone 272 QSOs. CW led the contact count, with Mike KF6YAL logging the most CW contacts. On the phone side, Arvind AJ7AY led the club with the highest number of voice contacts. These results came from significant effort and hours on the air but they were both always smiles. Arvind continued to operate until the last minute with tear down happening all around him. Tom KM7BLP and Aris KM7DBH completed the club's FM and SSB satellite contacts.

Thank you to all those that helped setup, operate, ragchew, and teardown

Ken	AI7LF	Anjali	-	Dave	W7AQK
Arley	KE7ANY	Julia	-	Jim	-
Kevin	N6KVN	Brace	-	Pete	K7LEE
Tom	KM7BLP	Bobbin	-	Mike	KF6YAL
Arvind	AJ7AY	Aris	KM7DBH	Paul	KE7OLU
Alan	AJ7EE	Addison	WF7Q	Raoul	W7RPS
Riter	-	Kathleen	K7KER	Paul	KI7ADC
Holace	-	Sean	KK7OVF	Russ	-
Jim	K8SAT	Dan	N7CQR	Chris	KU7PDX
Thomas	KG6VOI	Riter	KM7DQY	Russ	N7QR
Jim	K7KEY	Steve	KK7GFI		

Winter Field Day includes a series of operating objectives designed to test a station's flexibility, preparedness, and technical capability. The W7LT team successfully completed a number of these challenges, including:

- Operating 100% on alternative power
- Deploying and making contacts on multiple antennas
- Making both an FM and SSB/CW satellite contact
- Operating on at least twelve different bands
- Using multiple operating modes
- Operating continuously for six hours

These objectives encourage operators to experiment with different bands, antennas, and operating techniques while maintaining reliable power and communications capability away from traditional infrastructure.



One of the core purposes of Winter Field Day is to simulate the types of conditions amateur radio operators might face during real emergencies. Operators must be able to deploy portable stations, power them independently from the commercial grid, and communicate across multiple bands and modes. By practicing these skills in winter conditions, operators gain valuable experience managing equipment, antennas, power systems, and operating schedules under less-than-ideal circumstances. Events like Winter Field Day help ensure that when communications are needed most, amateur radio operators are prepared to respond.



One of the Most Important – but ‘Unofficial’ Objectives

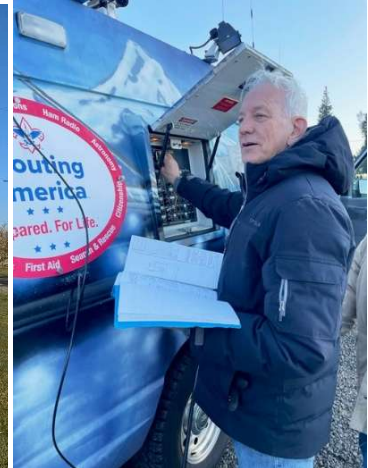
Great food! WFD setup, operating, and tear down is so much easier when everyone is well fed. Following in the footsteps of recent successes by Hailey and Mori (WFD 2025) and Dan (FD 2025), Alan AJ7EE and YL Violet volunteered to feed the troops and they put on quite a spread for breakfast, lunch, and dinner. Sandwich bar with all the trimmings, chicken and veggie enchilada casseroles, breakfast burrito bar, and lots of coffee and snacks.



Looking Ahead

PARC’s strong showing in the Mobile category reflects both the dedication of our operators and the club’s continued emphasis on portable operating skills. Whether working CW pileups, chasing satellite passes, or experimenting with antennas and bands, Winter Field Day proved to be both a challenging exercise and a lot of fun. Most importantly, everyone had fun and meal time included lots of stories of FDs past, sharing of family CW keys restored, encouraging words to operators, and ham humor all around.

Thank you and congratulations to everyone who participated and helped represent W7LT!





W7RPS Winter Field Day Report

Raoul W7RPS ran a WFD station on Sunday from Mason Hill Park on the north slope of the Tualatin Valley. The primary focus was making GHz contacts with the W7LT FD station and others. He was joined by operators Chris KU7PDX and Paul KE7OLU.

The W7RPS operation was initially under a shelter using several available picnic tables. Alas that location did not have adequate line-of-sight to W7LT, so two benches were moved to another location near a fence. This

served as a good mounting location for one of the Yagi's while the others were on a tripod. Luckily the weather was favorable.

The W7RPS team operated many modes including FM, SSB, DV, and ATV on the 23cm, 13cm, and 5cm bands using a variety of Yagi and dish antennas. The unique feature of the W7LT end of the GHz operation was that the three antennas (23cm Yagi, 13cm Yagi, and 5cm dish) were mounted on a vertical mast of a retired TV truck which was raised to about 30 feet.

Twelve formal GHz QSOs were logged and submitted to the WFD site by W7RPS, but many more informal contacts were made. ATV (video) QSOs were very popular with hams and visitors, and they lost track of how many folks were talked with overall.



Fox Hunt Draws a Crowd—and a Challenge

On March 21, 2026, a lively group of 16 hunters, including three enthusiastic grandsons, gathered for the latest fox hunt at Mt. Hood Community College. With spring just around the corner, conditions were ideal for an afternoon of radio direction finding, friendly competition, and hands-on learning.

This hunt featured a total of seven hidden transmitters (“foxes”), with five placed around the MHCC campus and two tucked away in Southeast Portland. Participants rose to the challenge, successfully locating all

seven foxes and logging an impressive 36 finds along the way. Whether seasoned hunters or newcomers, everyone had a chance to sharpen their skills and enjoy the thrill of the search.

A big thank-you goes out to Denny WB7UFJ, and all those who help organize these hunts. Our greater Portland radio community is fortunate to have such a dedicated team bring these learning adventures to us every other month.

If you're interested in trying a fox hunt yourself—or just want to see how others are doing—you can learn more and view the results log at N7TL.org. Looking ahead, mark your calendars for the next hunts: May 16 at MHCC, June 5–6 at SEAPAC.

A Coastal POTA Rove Through Time and Terrain *A featured story by: Dan Presley, N7CQR*

After Thanksgiving this last year (2025) I found myself with a chunk of free time for a little over a week. My wife was traveling and I didn't have any gigs in the immediate future - I'm a semi-retired professional jazz bassist, and for many years I was always booked solid through the holidays including NYE. I still do some performances in and around the Pacific NW, but not like I used to. So, I decided that this was a good opportunity to do a POTA rove on the Washington coast and Puget Sound area. Also, there was a window of good weather which is unusual for this time of year and locations. I decided that I would base myself at two different locations—Astoria, OR and then to Port Townsend, WA. These are two of my favorites on the coast. Astoria is on the Oregon side of the mouth of the Columbia River and is a historic town, with great restaurants, museums and a strong history of fishing, canneries and a large Scandinavian community. The town reminds me of many of the towns in Norway built on the hills around the fjords. And still to this day there's Finnish Saunas and a large Scandinavian festival in June. Every summer when I was younger, I would go down and help with some friends who did commercial salmon fishing in the Columbia or in the ocean.

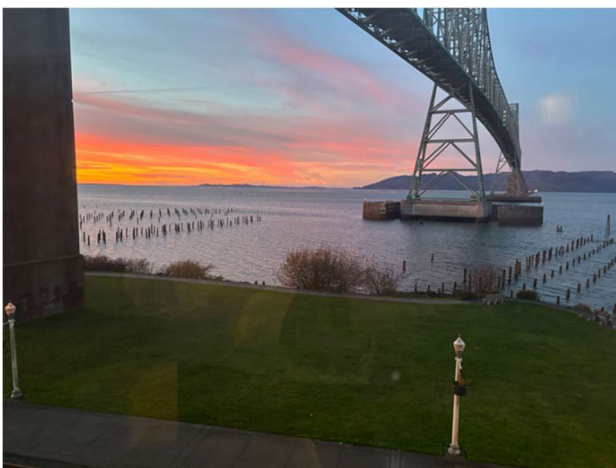
Astoria is right across the Columbia River from a number of great POTA locations in Washington State, particularly on the Long Beach Peninsula, which is about 20 miles long. Since I'm very familiar with the town, I knew this was a great place to start my travels. I had a secondary reason for choosing both the Columbia River region and the Port Townsend, WA area (located at the north entrance to Puget Sound and on the Strait of Juan de Fuca. At the start of WWII, my father was drafted and stationed at Fort Stevens near Astoria, and this was one of the main coastal defense artillery installations to guard against foreign attacks on shipping in the Columbia River, which was a major supply route for the US. His role was to help in plotting the trajectory of the guns. The radio connection is that his college roommate (Oregon State University) was a ham, and although my father was never licensed, he was familiar with radio. In his spare time, he would hang around the radio shack at the fort, helping with encryption and decryption of radio traffic, and he said, "it was always warm there and they had fresh coffee and other *beverages!*" When I became interested in ham radio in my teens, he definitely encouraged me and helped to get me started in learning about the hobby.

A bit of WWII trivia is that Fort Stevens was the only military installation to be attacked in the continental United States. In June 1942 when my dad was there, a Japanese submarine actually shelled the fort - no casualties except the baseball field backstop! Port Townsend also had a ring of fortifications around the waterways to protect the Naval facilities and cities. Near Puget Sound—Seattle and the Bremerton Naval Yard. Most of these fortifications were built in the post-Civil War era and revived during WWII. And now, many have been converted to National Parks, which is perfect for POTA activations.

At Fort Worden in Port Townsend, I took the opportunity to visit the excellent coastal artillery museum, which covers most of the forts in the Oregon and Washington area. and their history and artifacts from this time. I've included some pictures of the various installations and barracks from the forts to add some context to my activations. And not all of the parks I activated were military installations, but it gave me a nice focus for the rove.

Port Townsend is also a historic town founded in the mid-1800s and now is known as the wooden boat builder's capital for the west coast, and also as a hub for artists and musicians. Fort Worden, which is adjacent to the town is managed by the non-profit Centrum Foundation and hosts cultural events and workshops throughout the year, using the old military housing and meeting facilities.

My equipment choices for this were dictated by two factors-weather and speed of setup. It's often fairly cold and wet this time of year at the coast, but it was looking promising so I took two basic setups. First was the KX2 with either an end fed random length wire or the Chelegance MC-750. I also had my AX3 Elecraft short portable vertical with me in case I needed it. Here on the west coast there's often thick stands of Douglas Firs which are tough to put a wire through as the branches and foliage is very dense, and often as not they're on pretty uneven ground which makes tossing a line even harder. If I had to do a car activation, I would use the KX2 on a kneeboard and I installed a temporary whip mount (Comet) on the rear hatch of my Kia SUV. I have an adapter from 3/8x20 threads to the metric M10 for the collapsible whip that would extend to about 18 feet. I could clip a counterpoise to the mount and this tuned up fine. Second setup was the KH1 for quick deployment and/or pedestrian mobile use. And I could (and did on a few occasions) use the MC-750 with the KH1 which worked great. I also tossed in my CFT1 CW transceiver as a backup rig, which I ended up using just for fun on a few activations. I'm strictly using my Begali Adventure paddles mounted to the front of the KX2, and this works great even in fairly cold weather, plus some nice fingerless gloves knitted by my wife. I've had these paddles for a number of years and I haven't found anything even remotely close to the ease and accuracy of them-absolutely money well spent.



Here's a fun picture in Astoria right under the Astoria/Megler bridge across the mouth of the Columbia looking towards the Pacific Ocean at sunset. The bridge is over 4 miles long.

Day One

My first group of activations was in the Long Beach, WA area right across the Columbia from Astoria. My first park was Cape Disappointment State Park US-3170, right across the river in Washington, also known as Fort Canby, built in 1870. This was one of

the artillery forts on the northern side of the Columbia River. It's also home to the Lewis and Clark interpretive center, which is a fantastic museum covering the timeline of the expedition and includes artifacts from the journey. Although I didn't visit it on this trip, I've spent some time there previously and highly recommend a visit. I set up near a boat dock and managed to see a number of the salmon and halibut fleet returning from trawling in the ocean off the mouth of the Columbia.





After completing this activation, I drove up the Long Beach peninsula to the next park, Loomis Lake State Park US-3226. It's just a few hundred feet from the beach, and when I was unloading and setting up my gear on a picnic table, a guy hopped out of his pickup and yelled out, "Have a great POTAI!" Obviously, a ham. He gave me his callsign (which I promptly forgot!) and said as he was leaving that his local club was helping to test the Tsunami alert systems, which explained the unusual looking tower nearby... The Beach is just on the other side of the trees.

The last activation of day one was Leadbetter Point State Park US-3220, clear at the tip of the Long Beach peninsula and up a fairly rustic road. I marched out and set up on the tide flats and was treated to a plethora of birds-herons, egrets, red tail hawks and some very watchful bald eagles.



After I was finished, I drove south a short distance to the historic town of Oysterville, which was founded in the 1850's, which is definitely old for the Pacific NW.



Here's one of the oldest remaining buildings – it was a church for many years.



A successful day one, and then a return to Astoria to get ready for the next round.

Day Two

My first park of day two was Fort Columbia State Park US-3189, another one of the historic artillery installations along the Columbia. You can see the original batteries and a remaining gun of probably WW II vintage, all overlooking the river.





Next stop was the Chinook State Wildlife Area US-12495, which again took some back country navigating to find a spot to set up. This is another great bird sanctuary on the tidal wetlands.



The last park of day two was the Willapa Bay National Wildlife Refuge, US-0597. what you see here, is the ground fog settling in as I was packing up my last park of the day.



Another three parks, and so far, pretty decent weather especially for the pacific coast. In case I hadn't mentioned it previously, all my activities are CW at the QRP level.

Day Three

The next day was a travel day to Port Townsend, Washington, at the junction of the Strait of Juan de Fuca and Puget Sound. At one time Port Townsend was competing with Seattle to be the major port and transportation hub for Washington, and was built up in the late 1800's also to support Fort Worden, a critical Army and Artillery fort to protect the sound. But over time Seattle won out but the beautiful Victorian homes and buildings have been preserved and now it's primarily an artist colony as well as a major boatyard for wooden boat building and restoration. Many very large ocean sailing vessels and racing yachts are built or repaired



here. Fort Worden has been turned into a year-round facility for conferences and seminars for artists, writers and musicians and many are housed in the restored Army barracks and officer's homes.

It was about a four-hour drive from Astoria to Port Townsend, so of course I had stop at a park along the way to activate and have lunch -Potlach State Park US-3253 which is on the west side of Puget Sound.

As you see I was using the KX2 with the AX3, which was the perfect choice for a quick lunchtime activation. I finished the drive to Port Townsend, checked in to the hotel and got ready for a busy day of activities.

My first activation around Port Townsend was the Fort Flagler State Park US-3181. This was another coastal artillery site to protect Puget Sound and Admiralty Inlet, along with Fort Worden at Port Townsend and Fort Casey. Flagler is located on Marrowstone Island (accessible by road/bridge) to the east of Port Townsend across Admiralty Inlet.

I found this to be a very interesting location with well-preserved housing and gun batteries, with great views across the inlet.



After finishing this activation I drove a short distance, south to the next POTA site, Mystery Bay State Park for a quick activation. This was a small area built primarily around a few piers and a boat ramp where both pleasure craft and sailboats were moored.

To round out the day I did a third activation at Shine Tidelands State Park, back across the peninsula where Ft. Flagler is located. I thought this should be a nice quick activation along the roads back to Port Townsend. Plus being December, it gets dark up here pretty early-4:30 is sunset. But of course, it turned out to be a bit more of an adventure. Unlike many POTA and SOTA ops I don't always do much research for the locations I plan to activate in advance. I think it's just part of my nature to do things somewhat off the cuff and see what happens.



Mostly it works out fine and it adds some adventure, and often as not I discover different ways or cool locations within the park that I might've missed if I had pre planned all of the details. I've found that it pays to be flexible as you may not know what's happening on the ground until you actually get there.

After driving across the same bridge twice I finally stopped at a viewpoint to see if I could spot something that would help me to locate the park. I did see a stretch of beach and marshland that might be what I was looking for. So, back across the bridge and carefully looking, I found a sign that said 'park' with an arrow pointed towards the water. Following that led me to a small parking area with a bench and some placards.

One was for a county park and right next to it was the sign for the Tidelands park. They basically overlapped and the tidelands was the beach and marshland I could see from across the bridge. It's also a salmon habitat restoration area. After all of that I was able to activate not far from where I parked and managed to get the activation done before dark and rain set in. Then back to Port Townsend where I was staying, and get ready for the next day.

Day Four

The next day I traveled south from town to get two more parks-Chimacum State wildlife area US 12515, another beach/tidelands area. After that, then on to Fort Townsend, another civil war era artillery fortification on the sound. I Was able to find a nice place to set up, and I used the KX2 with the MC-750 vertical.

Fortunately, the weather was clear-not particularly warm but definitely good for an outdoor session. Propagation was good so I managed 27 Qs in an hour's time. That's a good outing for this part of the country where we don't have the population density compared to the Midwest or



east coast. The last park was Fort Worden (us-3194), which is adjacent to Port Townsend and is the largest remaining fort in this area. As I mentioned earlier it's now run by a foundation that hosts cultural activities and retreats for artists, writers and musicians. Also on the site is a lighthouse and I chose a spot nearby to set up.



Since this was at the entrance to Puget Sound, I was also seeing a lot of ship traffic, which was interesting.



This tree just stuck out to me as a perfect example of the coastal experience—a true natural ‘Bonsai’...

After finishing up I headed back through the fort and noticed that there was a coastal artillery museum which I stopped to check out. I got a great private tour and was able to see a number of pictures and artifacts from the time period when my father was at some of the forts. It's well worth a stop if you find yourself in the area. This was a perfect complement to my ‘theme’ of checking out the forts on my rove.

Day Five

For my last day I worked 3 more parks-US-3266 Sequim Bay State Park (pronounced ‘Squim’), US-0378 Miller Peninsula State Park and US-12516, Discovery Bay State Wildlife refuge. At Sequim I decided to haul out the CFT-1 with the MC-750, and this was a great combination. It's such an intuitive radio to use-everything you need is easily accessible from the menu. It doesn't have a built in ATU, but it worked out great with the MC-750, which can be adjusted for resonance with the silkscreened markings on the whip for each band. And this was a beautiful setting overlooking the bay. There was a small shelter as a great place to set up. This day 15M was the hot band.





Here's a nice shot looking east on the bay at the mist rising off of the water



Here's a shot of the setup at Sequim with the CFT1, and the 'rite in the rain' notepad-pretty important in the rainy PNW!

The last two spots were pretty uneventful, since it had finally started to rain heavily. I did the last two activations from my car, which I always use as a last resort. I just prefer working outside if at all possible. I was very lucky that the weather window I had was almost always clear -very unusual for the north coast during the winter months. All in all, I had a great time, and got to activate some fun spots that hadn't seen much activity. The good weather was a bonus, and the chance to visit two beautiful historic towns, and the forts where my father had spent some time all made for a great rove. And of course, eating as much fresh seafood as possible! I think I ended up with about 200 contacts total which is good from the more sparsely populated west coast. If the opportunity comes along, pay a visit to this region and be sure to toss in some radio fun!

January Meeting: Exploring the Microwave Bands with the IC-905

Raoul W7RPS, Paul KI7ADC, and Bob KK6WLU

PARC kicked off the year with an engaging and eye-opening January meeting focused on amateur radio above 1 GHz. Raoul W7RPS, with support from Paul KI7ADC and Bob KK6WLU, led a live demonstration of the Icom IC-905 and introduced attendees to the possibilities of operating on the microwave bands.

The IC-905 covers an impressive range of frequencies and modes, including FM, SSB, AM, D-STAR (DV), and Amateur Television (ATV), across bands from 2 meters (144 MHz) through 5.6 GHz. Raoul walked through the basics of planning and setting up portable operations on these higher bands, emphasizing the importance of clear line-of-sight paths. He highlighted the use of topographic mapping tools to evaluate potential operating locations—an essential step when working at GHz frequencies where terrain and obstructions matter significantly.

Practical considerations were also front and center. Raoul noted that ideal operating sites often include accessible parking and nearby public restrooms—something many operators appreciate during longer outings. With dish antennas and sturdy tripods often required for microwave work, minimizing the distance equipment must be carried can make a big difference in both setup time and overall enjoyment.

Throughout the evening, attendees were treated to a variety of GHz-band antennas and equipment, offering a hands-on look at the tools used for this style of operating. The night ended with live Amateur Television demonstrations, where Raoul successfully completed digital TV QSOs between two stations in the room. Attendees were even invited to step in front of the camera and make their own on the air eyeball QSO.

February Meeting: AI Meets Amateur Radio

Saint-Hilare, KK7VZT

At our February meeting, PARC members were treated to a fascinating and timely presentation by Ylian Saint-Hilare, KK7VZT, who explored the rapidly evolving intersection of Artificial Intelligence (AI), Machine Learning (ML), and amateur radio.

Ylian, who works with teams supporting the data centers behind many of today's AI workloads, began by pulling back the curtain on how modern AI systems actually function. He introduced the concept of GPUs and their critical role in providing the massive computing power required for AI, along with a clear explanation of "tokens", the building blocks that large language models (LLMs) use to process and generate text. These foundational ideas helped demystify how tools like ChatGPT and others operate behind the scenes.

From there, the discussion shifted to practical applications. Ylian compared the strengths and limitations of various AI tools, noting where they excel, such as working with natural language, and where they can struggle, particularly with raw mathematical precision. He demonstrated how AI can be a powerful assistant for hobbyists, including writing code, building small applications, and even generating HTML-based tools tailored to specific needs.

In one of the highlights of the evening, Ylian created a simple CW practice web application live during the presentation, built in just minutes using AI assistance. The demonstration showcased how accessible these tools have become, and how they can be leveraged to enhance learning and experimentation within amateur radio.

Ylian also encouraged members to think about the broader role of AI in our hobby, describing amateur radio as a natural playground for experimentation with intelligent systems across the electromagnetic spectrum. At the same time, he closed with an important and sobering reminder: these powerful tools can be misused. He emphasized the growing risk of deepfake scams and urged everyone to help educate friends and family about how to recognize and guard against them.

The presentation sparked plenty of interest and discussion, highlighting both the exciting opportunities and real-world responsibilities that come with integrating AI into our hobby.

March PARC Meeting Recap – Repeater System Updates

George Zafiropoulos KJ6VU

At the March meeting, George Zafiropoulos provided an in-depth update on the status of PARC's repeater systems on Larch Mountain (Washington) and Mt. Scott (Clackamas County), and the work the repeater committee have been doing.

Recent upgrades include the installation of a 100-watt Motorola Quantar repeater and the addition of an AllStar node on the 147.180 MHz repeater at Mt. Scott. George also noted that the repeater committee, Wayne, Pete, Joel, and George, continue to evaluate system improvements.

Looking ahead, the club is considering relocating one of the three Mt. Scott repeaters to another area in the valley to improve overall regional coverage. In parallel, there are plans to expand AllStar capability across all PARC repeaters, allowing them to be linked together and connected to the broader AllStar network.

One of the most immediate benefits of this approach is the ability to temporarily link PARC repeaters to other systems across Oregon. This would allow Portland area hams to hear nets locally that are otherwise out of range, with scheduled link-ups during net times and automatic disconnection afterward.

George also shared that several linking technologies, including AllStar, IRLP, and EchoLink, were evaluated. AllStar was selected due to its superior wideband analog audio quality, which maintains a natural, FM-like sound.

Importantly, the system is designed to be flexible and user-friendly:

- Members can continue to use the repeaters just as they always have with standard FM radios
- Users can send DTMF commands to connect to other linked systems via AllStar
- Members can also connect from home using a personal AllStar node over the internet

For those interested, AllStar nodes can be either homebuilt or commercially purchased, offering another way to engage with the PARC repeater network.

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 3rd Tue) 145.450 MHz repeater <http://washcoares.org/>

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

Clark County ARES Mondays at 7 PM 443.925 MHz 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 After 33 years on the air, this net ended on August 29, 2025. See the website for training materials <https://qsl.net/nttn/>
Thank you Dave W7EES for decades of service to this community!

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 8:10 PM-9:00 PM 147.32, 442.325, 444.400, 147.040 MHz repeaters <http://kc7nyr.com/linux/>

The Outdoors Net every Thursday 8:05 PM-9:00 PM 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 7:30 PM on 147.18 club repeater

Welcome to Our New Members!

We're excited to welcome all of our new members this quarter 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.

Some of our new members bring meaningful experience at DX'ing and CW, and others are just beginning their amateur radio journey.

Chris NW6V includes a lot of CW resources on his website - <https://morsebusters.com/>

<u>Name</u>	<u>Call</u>
Nybe	<i>not yet</i>
Atlas	<i>not yet</i>
Chris	NW6V
Bruce	W7BTM
Wayne	AI9Q
Jesse	N2DYL

Dits and Dahs – Updates from Members, Lightly Filtered

Raoul W7RPS

Raoul included images of his newest ‘toy’, the AMSAT CubeSat Simulator based on the Fox family designs. Not space ready but complete telemetry and image capability. Multiple telemetry modes including BPSK, FSK, APRS, CW. Measures battery, solar panels, acceleration, and component temps. Also does SSTV and FM voice repeater on UHF / VHF. Good fun. In the pictures you can see the CubeSAT in stable orbit on the top shelf. The ground station is underneath. The image with three screens includes: GPredict on left, HamClock in the middle in a zombie state, and a Pi-powered slide show of space pix.



In March, Raoul led a workshop with the Portland State Aerospace Society exploring the AMSAT CubeSat Simulator's radio telemetry capabilities. These include data transmissions in BPSK and FSK modulations, and telemetry in several protocols including APRS and SSTV. The CubeSat also has a satellite repeater function which was used to simulate what hams enjoy doing with spaced based satellites, especially during winter and summer Field

Days. The highlight was taking many SSTV images, like the one pictured with the Aerospace Society attendees, until the CubeSat battery was exhausted and the solar panels were unable to provide enough energy from the room lighting.



Sean KK7OVF

Enjoyed hunting the Foxes that Denny and team hid in SE Portland in March. Started on top of Mt. Scott and Kelly Butte with HT and loop antenna for direction, then used Yagi and RSSI meter in close to tighten the search grid. RSSI meter alone in final small grid to ID the transmitter locations. Learned a lot during an unsuccessful fox hunt attempt in January.



Ylian KK7VZT

I have been working on and released the new full re-design of Handi-Talky Commander (HTCommander) now at version 0.61. This is an all-in-one tool for your HAM radio communications on the 2 meter and 70cm bands if you have a compatible Bluetooth radio. A lot have been improved, but I will focus this time around on the rather fun addition of Slow Scan TV (SSTV) support.

Normally you have to wire the audio cable of your radio to your computer's sound card and run special software to send and receive images, but with HTCommander having full control over the radio, sending an image is now as simple as drag & dropping a JPEG or PNG on the communication area and clicking OK to confirm. With the Robot36 protocol, it will take 36 seconds to send your image.

On the receive side, HTCommander automatically detects that an image is being sent and will start showing it on the screen as it's coming in. Probably my favorite feature is that when sending or receiving a SSTV image, HTCommander will auto-mute the audio so you don't have to hear the annoying sounds of SSTV image transmissions (yay!).

Other major improvements include being able to sync Winlink emails over both packet radio and directly over the internet and allowing other stations to use your internet to sync their emails. This is great if you need to turn your radio into a Winlink gateway.

As usual, more to come. You can get lots of information about this free and open-source software at: <https://github.com/Ylianst/HTCommander>. Enjoy! Ylian.

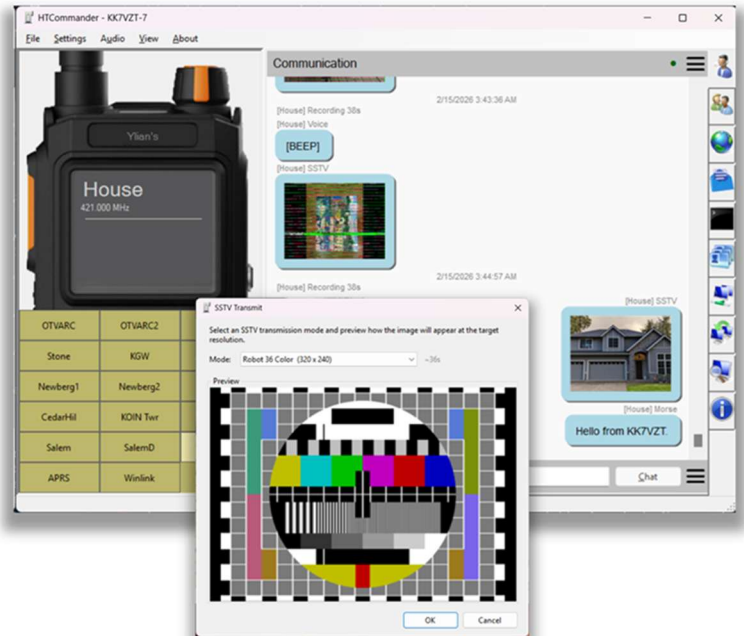
Jim K8SAT

I've been lazing on radio. I took my KX3 out a few weeks ago for a POTA with Dan P. and used my new Chelegance vertical. Its setup was simple and it seemed to work well.

At home I've been regularly checking into the 80 M West Coast Slow Speed Net, a 10-wpm traffic and training net. I'm most active on 20 M but regularly check the bands up to 10 M for openings. I tend to hang out around the SKCC frequencies as it's easier to find others who like rag chewing. Haven't had a mike in my hand for a long time.

I get on the sub at OMSI every Wednesday morning and it's fun. I try to chase a few SOTA and POTA stations, make at least one 30 or more CW QSO as I find them much more satisfying than a quick info swap.

I'm going to get George S. to help me setup an AllStar home hub in the near future, validating all the talk of how costly knowing him is. That will get me more active on HF/UHF and the Club's repeaters. As the weather improves, I'm going to find combo birding and POTA sites so I get more of each activity.



Honoring a Silent Key

Amateur radio is built on communication, learning, and experimentation, but it is the people and community that give it life. Occasionally, we are reminded of that in a deeply meaningful way when we say goodbye to a fellow ham.

Recently, PARC President Dan N7CQR, had the opportunity to assist with a tradition that many hams may have heard of, but perhaps have not experienced firsthand: a Silent Key ceremony. Dan was contacted by the son of a longtime amateur radio operator, Ralph NU7G, who had recently passed away. Although Ralph had most recently lived in Tacoma, his memorial service was being held locally with family. His son, himself once licensed, wanted to incorporate amateur radio into the service in a way that would honor his father's connection to the hobby.

The plan was simple, but powerful. His son brought his father's handheld radio to the memorial and tuned it to PARC's 146.84 repeater. At the appointed time, Dan called out over the air, not expecting a reply, but creating a moment that every amateur radio operator instinctively understands.

Drawing from traditional Silent Key practices, Dan used a format similar to this:

"This is N7CQR from PARC calling to honor our fellow ham..."

(Pause)

"Calling NU7G... NU7G... NU7G..."

(Listening pause)

"No contact. Ralph, NU7G, is a Silent Key. May you rest in peace. 73."

The simplicity of the exchange is what gives it such weight. The repeated call, the pause, and the final acknowledgment reflect something deeply familiar to anyone who has spent time on the air. It mirrors the rhythm of amateur radio itself, call, listen, respond - but in this case the silence carries the meaning.

Dan shared that this was his first time participating in a Silent Key ceremony, and by all accounts, it was a moving experience for those in attendance. For family members, it offered a tangible connection to a part of their loved one's life that may have otherwise felt distant or technical. For those familiar with amateur radio, it was a fitting and dignified tribute.

The term "Silent Key" has long been used in amateur radio to mark the passing of an operator. While the phrase is simple, the tradition behind it reflects the strong sense of community within the hobby. Whether through a brief on-air acknowledgment, a club announcement, or a ceremony like this one, we take time to recognize those who shared the bands with us.

Dan's experience is a reminder that amateur radio can play a meaningful role beyond everyday contacts and nets. It can help tell a story, preserve a legacy, and bring comfort to families in a way that is both personal and uniquely "ham."

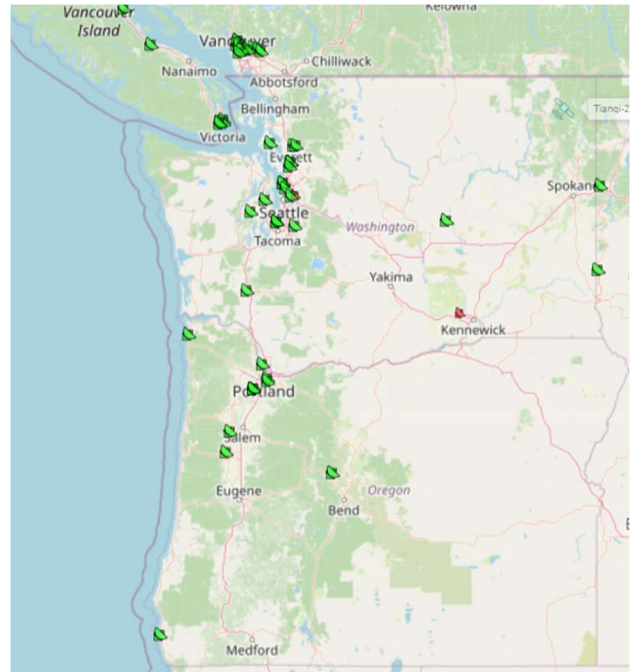
TinyGS: A Global Satellite Ground Station Radio Network

Low-Earth orbit satellites are being launched at an unprecedented rate, many of them built by universities, research institutions, and small technology companies. These spacecraft often transmit telemetry, along with health and status data, using very low-power radio signals (less than one watt). The challenge for satellite teams is not just building the spacecraft, but collecting telemetry and performance data once it is in orbit.

One solution comes from a growing community of volunteer radio operators and experimenters: TinyGS, a worldwide network of small satellite ground stations that receive satellite transmissions and share it with the satellite mission teams that built them.

TinyGS (Tiny Ground Station) is an open community project that allows volunteers to build inexpensive satellite telemetry receivers using modern low-power radio modules and connect them to a global data-collection network. The project grew out of work supporting the FossaSat LoRa satellite missions, but it quickly evolved into a broader platform capable of receiving telemetry from many experimental satellites operating primarily in the 70-cm band around 435 MHz.

Each TinyGS station automatically listens for packets transmitted by supported satellites. When telemetry is received, the station forwards the decoded data to the TinyGS servers where it is stored, visualized, and shared with satellite operators. Today the network includes over 2,000 volunteer ground stations around the world, forming a distributed receiving system that helps satellites remain visible to their operators almost anywhere on Earth. When a supported satellite is not overhead, the system listens for currently unknown satellites and attempts to catalog them.



TinyGS world map showing ground stations

For many small satellite missions, especially university CubeSats, building a global ground station network is impractical. A single university ground station may only see a satellite a few times per day during short orbital passes.

A distributed volunteer network dramatically improves the situation. When a satellite transmits telemetry and data: Multiple TinyGS stations may receive the same packet, data can be captured across an entire orbital path, and mission teams receive far more information than a single ground station could collect. In effect, TinyGS provides satellite developers with a crowdsourced global receiving network, allowing them to focus on building and operating their spacecraft rather than constructing worldwide ground infrastructure.

Examples Include:

Satellite	Organization
FossaSat-1 / FossaSat-2	Fossa Systems (Spain)
Norby	Moscow Aviation Institute
Polytech Universe	Moscow Polytechnic University
TRISAT-R / TRISAT-3	University of Maribor (Slovenia)
DIY-1	AMSAT-Spain
Lucky-7	AMSAT-EA / educational satellite

TinyGS stations regularly receive telemetry from a variety of research and technology demonstration satellites. Many of these spacecraft were developed by universities or research organizations.

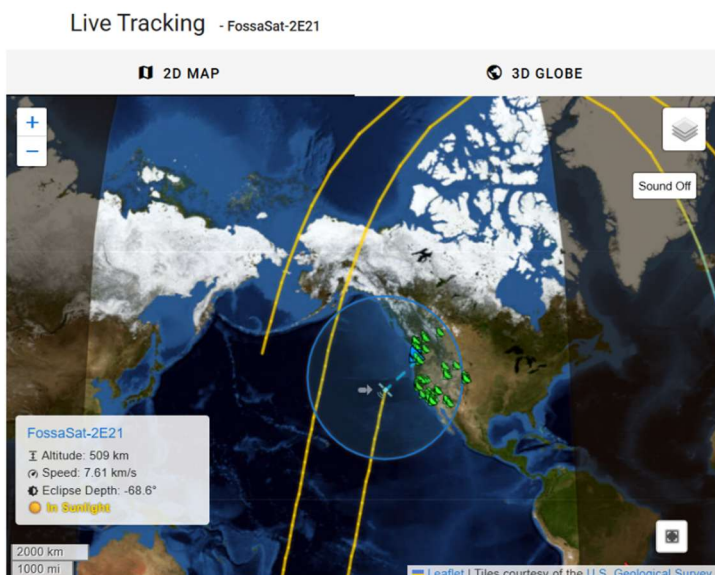
These satellites often transmit telemetry using LoRa modulation, which is extremely efficient for low-power spacecraft and allows signals to be received over very large ground footprints. One of the most appealing aspects of TinyGS is how simple and inexpensive a station can be.

A typical station includes:

- ESP32 microcontroller with a LoRa radio module (\$20-\$40)
- 70 cm antenna tuned near 435 MHz - Omni directional antenna (e.g., quarter wave ground plane, egg-beater, etc.)
- Wi-Fi Internet connection
- Power via USB and house power, or via combination of batteries and solar
- Optional - low-noise amplifier (LNA)

Once configured, the station connects to the TinyGS network and begins listening for supported satellites automatically. Unlike many satellite ground stations that require active tracking and operator input, a TinyGS station is designed to run continuously and autonomously. Once installed the station listens for satellites, packets are decoded and uploaded to the network, and new satellites are added remotely via updates over Wi-Fi. Most stations run 24 hours a day with little or no operator interaction, quietly collecting telemetry whenever a supported satellite passes overhead.

Every TinyGS station is connected to a web-based dashboard that allows operators to see exactly what their station is hearing. The dashboard shows packets received by your station, satellites currently being tracked, signal strength and SNR, geographic coverage, and comparisons with other stations in the network. Operators can also see which satellites their station has helped support and how many telemetry packets they have contributed to the network. Further information on each satellite is available including pictures, mission, telemetry and health information, and all of the data that has been collected by the volunteer stations. Watching the dashboard during a satellite pass can be surprisingly addictive.



TinyGS represents a new kind of collaboration between radio operators, engineers, and space researchers. Volunteers provide the receiving infrastructure, while satellite teams gain valuable telemetry from spacecraft in orbit. For amateur radio operators interested in satellites, TinyGS offers a way to contribute to real space missions while experimenting with modern radio technology. And once your station is running, it quietly does its job listening to spacecraft and supporting science. You can learn more at <https://tinygs.com/> and <https://github.com/G4lile0/tinyGS>.

PNW hams K7AGE, K7JB, N0MEN, and KK7OVF shared details of their TinyGS stations for inspiration:

William NOMEN

William NOMEN is running a TinyGS station in Corvallis, Oregon, using an older Heltec ESP32-based board paired with a custom low-noise amplifier (LNA) that he designed and tuned for the 434 MHz band. His antenna is a homebuilt Quadrifilar Helix (QFH), constructed using a 3D-printed bending jig. This is a very hands-on, DIY approach to station building.



William's setup highlights the flexibility of TinyGS hardware, combining older ESP32 boards, custom RF components, and 3D printing to create an effective satellite ground station. His experience also reflects the experimental nature of TinyGS, where building and tuning your own components is part of the fun.

Blog on LNA construction: <https://www.housedillon.com/posts/skyworks-lna/>
Video of LNA early testing: <https://www.youtube.com/watch?v=sNBHXIADufg>
3D files for Bending Jig: <https://a360.co/4bB2EGp> <https://a360.co/40IYlhK>

Randy K7AGE

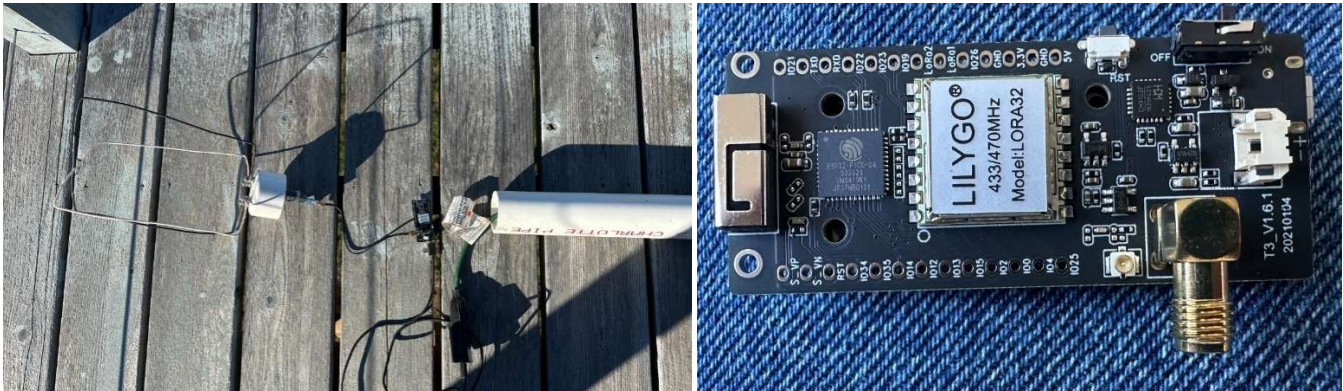
Randy K7AGE has a TinyGS station in Gold Beach, Oregon. His station has proven very effective and is capturing an average of 800+ satellite transmissions daily. He shared details from his TinyGS setup with us. The microprocessor / receiver is a LilyGo ESP32-based board (433–435 MHz model) using the EggNOGS antenna kit from Halibut Electronics. The Antenna mounts on top of a two-inch PVC pipe, and then the short coax, ESP32 board, 5v USB wall adapter, and AC power extension cord are all inside the pipe. The entire thing is mounted on an elevated house deck.



Randy experimented with alternative setups, including a ¼-wave vertical in a plastic ammo can that worked almost as well as the EggNOGS antenna. Interestingly, adding low-noise amplifiers and filters *reduced* performance in his case, likely due to front-end overload. His best results came from running directly into the receiver with no preamp.

Randy has a popular YouTube channel and you can view his video on TinyGS at https://www.youtube.com/watch?v=T9L_kpvhNFs



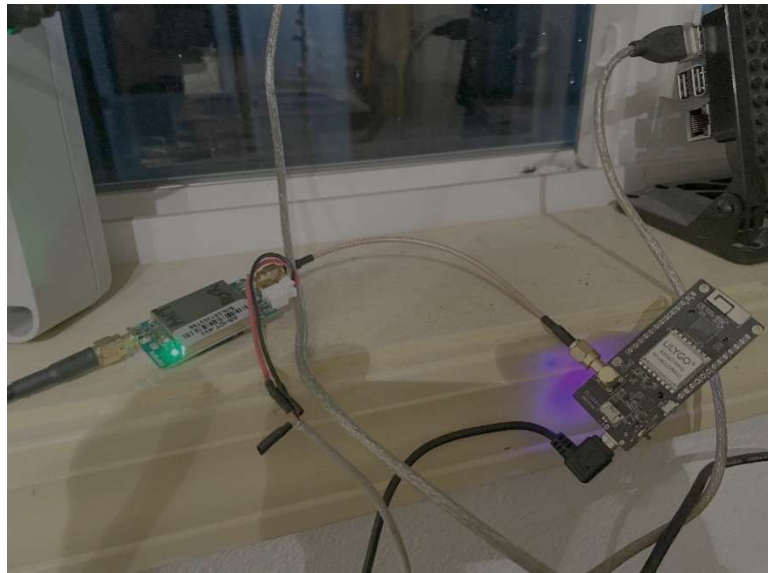


Ren K7JB

Ren K7JB is operating a TinyGS station from Winlock, Washington using a LilyGo ESP32-based development board. His setup uses a commercially available 433 MHz omnidirectional antenna mounted indoors near a south-facing window, which helps explain why most of the satellites he receives are to the southern sky. The display you see in



the antenna picture is one of his ADSB receivers (aircraft



tracking). He has a waterproof enclosure ready to go and plans to move the station equipment outside once the rain stops.

The station includes a 433 MHz signal amplifier module (LNA) and is powered by a multiport USB supply using house power. Ren's straightforward, off-the-shelf approach demonstrates how a simple indoor setup can still produce solid results, especially when paired with a favorable antenna orientation.

LilyGo Board: https://www.amazon.com/dp/B0B45L398K?ref=ppx_yo2ov_dt_b_fed_asin_title

Antenna: https://www.amazon.com/dp/B08F3C7DJT?ref=ppx_yo2ov_dt_b_fed_asin_title

Lora LNA: https://www.amazon.com/dp/B09T39P1C1?ref=ppx_yo2ov_dt_b_fed_asin_title

Sean KK7OVF

Sean is running a TinyGS station in Milwaukie, Oregon, using a new LilyGo T-Beam ESP32 LoRa Wireless Module with the pre-soldered OLED screen option direct from the manufacturer. This is the same microprocessor used to construct the radiosonde balloon tracker discussed in a previous newsletter. This board comes with a built-in rechargeable battery holder and charger component but can also run direct from a common 5v wall adaptor. A little experimentation showed that the reception of satellite signals was much more successful without a battery installed and running direct from house power.

The antenna is a dual band 2m/70cm signal stick on a magnet mount stuck the top of a steel gas BBQ in the garage. Even running from within the confines of the closed garage the station is successfully receiving 300+ transmissions daily. A quarter wave ground plane antenna has been constructed in anticipation of moving this station outdoors soon.

T-Beam Board: <https://lilygo.cc/en-us/products/t-beam?variant=43059202654389>

Antenna: <https://signalstuff.com/products/st-bnc/?band=2m70cm-dual-band&color=glow>

Magnet Mount: <https://signalstuff.com/products/magmount-bnc/>



Bunkers on the Air Comes to the United States

Amateur radio operators are no strangers to operating awards programs that encourage getting out in the field. Many PARC members already enjoy activating parks through Parks on the Air (POTA) or summits through Summits on the Air (SOTA). Now a program started in the UK is coming to our shores - WWBOTA - World Wide Bunkers on the Air.

WWBOTA acknowledges and commemorates the many historic military bunkers, fortifications, and defensive structures scattered around the globe. These structures often date back to World War I, World War II, and the Cold War era, and many still exist in parks, coastal defenses, and former military installations.

The WWBOTA program maintains a worldwide database of qualifying bunkers and assigns each one a reference number. Operators can activate these sites from the field or hunt them from home, much like other portable operating programs. Beginning January 1, 2026, the WWBOTA program expanded to include USBOTA – United States Bunkers on the Air, a new subsystem specifically cataloging bunkers across the United States. The U.S. currently has 342 official sites compared to the United Kingdom's 3,533 listed sites.

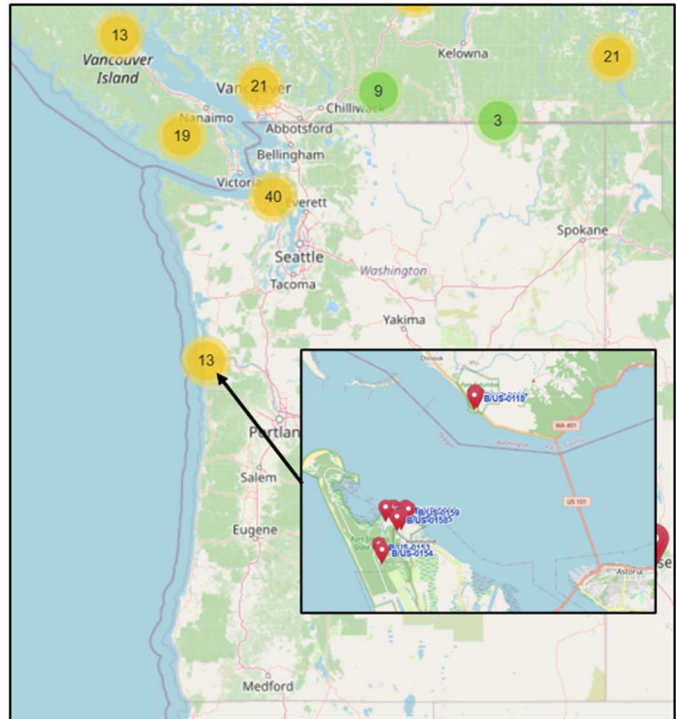
USBOTA references are in the format 'B/US-xxxx' where xxxx is a unique bunker number starting at 0001. The program is managed by Rem K6BBQ, who is currently building the official database of U.S. bunker locations. As the list grows, operators will have more opportunities to activate these historic sites across the country.

The U.S. activation rules are intentionally similar to other popular portable programs. Here are some highlights:

- The activator must operate within 1000 meters of the bunker's listed coordinates.
- Up to five bunkers can be activated simultaneously, but only if the operator is within the overlapping 1000 m activation zones of all of them.
- A valid activation requires 25 QSOs with different stations.

- Contacts on different bands with the same hunter count as additional QSOs for the activator, though not for the hunter.
- Changing modes on the same band does not earn additional credit.
- Each bunker counts once per activator for lifetime awards.
- WWBOTA explicitly encourages combining activations with other programs such as POTA or SOTA when the locations overlap.

At the moment, the number of listed U.S. bunkers is still relatively small, but the program is expanding. The closest listed official USBOTA sites to Portland are the historic coastal defense batteries located at the mouth of the Columbia River, including sites on both the Oregon and Washington sides. These concrete artillery batteries were part of the Harbor Defenses of the Columbia, constructed in the early 20th century and expanded during World War II. Today many of them sit inside public parks such as Fort Stevens State Park and Fort Columbia State Park, making them accessible and historically interesting activation locations. For this issue, we've included a Pacific Northwest map highlighting the currently listed bunker locations.



One bunker much closer to home may eventually join the official USBOTA list. Your editor has contacted Rem K6BBQ, the USBOTA national coordinator, about adding the Kelly Butte Civil Defense Bunker in Portland. Built during the Cold War era, the Kelly Butte bunker served as an emergency government operations center and fallout shelter. If approved and added to the database, it would become a convenient local USBOTA activation opportunity for Portland-area operators.

For more information or to explore the current bunker database, visit:

WWBOTA: <https://wwbota.net/> **USBOTA:** <https://wwbota.net/usbota/>

Who knows, your next portable activation might come from inside the shadow of a historic bunker.

Update: Shortly after this article was drafted, USBOTA coordinator Rem K6BBQ confirmed that he is submitting the Kelly Butte Civil Defense Bunker and the Christmas Valley OTH radar station for approval to be included in the official USBOTA database.

Rem also shared a few tips for anyone interested in helping expand the USBOTA database. The term “bunker” in the WWBOTA program is used broadly and can include coastal defense batteries, ammunition bunkers, Cold War Nike missile launch and radar sites, and similar military structures. When multiple bunkers of the same design are clustered together, they may be grouped under a single reference number with one set of coordinates. To propose a new site, the most helpful information includes the name of the bunker or bunker complex, coordinates, a link to a satellite image, and a historical reference. As USBOTA continues to grow, operators can activate these sites from the field or hunt them from home, much like POTA activations, and join operators in more than 20 countries participating in the broader WWBOTA program.

PARC REMOTE ACCESS FLEX 6600 HF RADIO

Don't forget that the club's remote FLEX 6600 HF radio is now operational and available for use by 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 to 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, KJ6VU. 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.

Upcoming Club and Regional Calendar	
PARC Club Net Tuesdays at 7:00 PM on 146.84 club repeater W7LT	
Dates	Event
April 6	Board Meeting
April 13	Club Meeting
April 18	Club POTA Party
May 4	Board Meeting
May 11	Club Meeting
May 16	East County Fox Hunt - MHCC - Fisheries Building 11am start
May 16-17	Tillamook Burn Trail Run - Communications Support
June 1	Board Meeting
June 5-7	Sea-Pac Hamfest - Seaside, OR
June 8	Club Meeting
June 27-28	ARRL Field Day

Upcoming Contests of General Interest
7th Call Area QSO Party, May 3-4
ARRL Inter. Digital Contest, June 6-7
ARRL June VHF Contest, June 13-15
<i>see more at contestcalendar.com by WA7BNM</i>

Thank you to everyone who contributed to this quarter's newsletter, including – Dan N7CQR, Ken M. AI7LF, Denny WB7UFJ, Ylian KK7VZT, George KJ6VU, Rem K6BBQ, Randy K7AGE, Raoul W7RPS, Jim K8SAT, Ren K7JB, William NOMEN, and Sean KK7OVF (Editor).

