

Pacific Northwest SOTA Newsletter



Upcoming Events for Your Summer Planning:

April 15-16: QRPTTF (QRP To the Field) – <https://www.zianet.com/qrp/qrpttf/pg.html>

June 2-4 SeaPac Hamfest, Seaside, Oregon – <https://www.seapac.org/>

June 2 SeaPac SOTA Meet-up Friday 5pm, Pizza Harbor, Seaside, Oregon <https://www.pizzaharbor.com/>

June 10-11, ARRL June VHF Contest <http://www.arrl.org/june-vhf>

July 8-9: SalmonCon XVIII Campout + SOTA Event, North Bend, Washington – <https://www.pnwqrp.org/salmoncon>

July 15-16: CQ WW VHF Contest – <https://cqww-vhf.com/>

July 22-23 Glacier Hamfest, East Essex, Montana – <https://www.gwhamfest.org/>

July 21-24 W7O Campout, Diamond Lake, OR <https://reflector.sota.org.uk/t/2nd-annual-w7o-campout-2023/31376>

August 5: Idaho W7I SOTA Activity Day (Saturday)

August 6: BC VE7 SOTA Activity Day (Sunday) – contact Gabor-VE7JH

August 6: Puget Sound W7W SOTA Activity Day (Sunday) – contact James-WA7JN

August 5-6: NA SOTA Rocky Mtn Rendezvous + Colorado 14er Event <https://ham14er.groups.io/g/ham14er/wiki/>

August 5-6: W6 SOTA Activity Weekend – [2023 SOTAFest](https://2023.SOTAFest)

August 5-6: PNW Not Quite Fourteener S2S Party – <https://qrpx.org/>

August 5-6: ARRL UHF (222MHz+) Contest – <https://www.arrl.org/222-mhz-and-up-distance-contest>

August 26: Central Oregon SOTA Activity Party – <http://www.pnwsota.org/content/august-26-2023-central-oregon-do-si-do-pines>

September 9-10: ARRL September VHF Contest – <https://www.arrl.org/september-vhf>

September 8-11: W7W Summer Campout & S2S Party – <https://www.facebook.com/search/top?q=w7w%20campout>

at [Guler Mt. Adams County Park](https://www.facebook.com/search/top?q=w7w%20campout) near Trout Lake, Washington, contact Jeff-KJ7VDP if you might join.

October 14: Oregon Eclipse Campout – <http://www.pnwsota.org/content/october-14th-2023-oregon-eclipse-campout-tbd>

Hamfests/Hamfairs Around the Region – April through October – [Pacific Northwest Hamfairs \(n7cfo.com\)](https://www.pacificnorthwesthamfairs.com/)

The Four Snowmen of the SOTApocalypse Ride!

The Four Snowmen of the SOTApocalypse: Rich-AC7MA, John-K7JRO, Darryl-WW7D, and Josh-WU7H embarked on an epic snowmachine adventure to activate Red Top Mountain, in Central Washington State (W7W/CW-061). Ride along with them and enjoy the 360-degree views from the summit! https://www.youtube.com/watch?v=5j_FuX4omn8

The Four Snow Goats Ride Again!

The Four Snow Goats ride into the Irish Death Zone! Josh-WU7H, Darryl-WW7D, Rich-AC7MA and John-K7JRO on another adventure with three snowmobiles and a Timbersled (aka Ski Bike). This time they visit the summit of Mt. Lillian South (W7W/CW-036) and enjoyed a round of Irish Death (courtesy of AC7MA) to commemorate the day (St. Patrick's Day 2023). Thanks to Rich for the beer! <https://www.youtube.com/watch?v=wI0PoxftP6Q> (See the banner photo.)

Winter Field Day – SOTA-Style by Alex-KJ7VJB

This January a group of amateur radio friends (James-W9MPX, Daniel-KJ7NUY, Richard-K9RCP, Nick-KJ7NWK) and I planned a Winter Field Day activation, up in the hills of Oregon's Coast Range. We were searching for a remote site, away from any RFI source, and a location with some elevation. We ended up picking a site at Little Hebo, the smaller cousin to Mount Hebo to the northwest. This location was a SOTA and POTA entity (W7O/NC-032 and K-4384).

At the top of Little Hebo there are a couple of rock quarries, a nice large flat area perfect to setup camp. With two RV trailers and a couple of tents, part of the group arrived Friday before the event to begin setup. We used a drone to hang a rope in a tree surrounding camp but the fog grounded the drone and light was fading, so we continued the next morning.



Once the rest of the crew arrived, we got to work hanging our fan-dipole (80, 40, 20, 10m). This was the first time this particular antenna had been in the air so some tuning was necessary. Due to our delays in setup, we couldn't get on the air until an hour after T-time. Our "radio room" was a pair of walled pop-ups, where inside we ran propane heaters to keep the cold out. We used a triplexer on the fan dipole and respective band pass filters to get three radios on the air, Yaesu FTDX10, Icom 7100, and 7300.

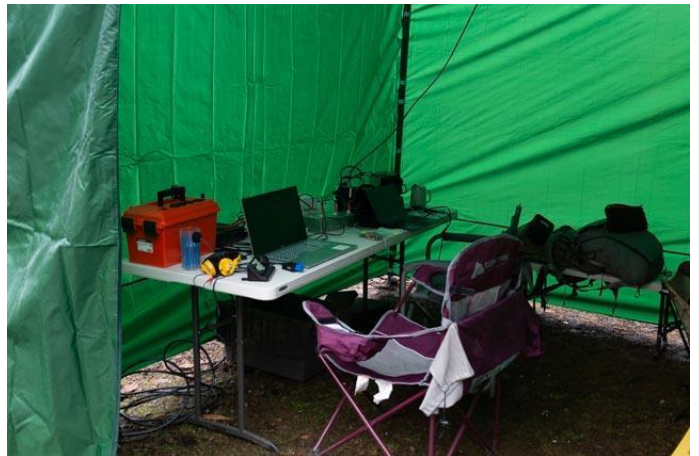
We took away several lessons from this exercise, some more valuable than others. Our biggest lesson, however, is the importance of antenna grounding. As the night drew on, the wind started to pick up, and one of our operators started getting shocked repeatedly by the case of his radio. The wind, and the now snowy dry air, was generating an immense amount of static on our antenna, it was even discharging onto the luggage rack of one of our vehicles straight from the feedline. With a couple of metal tent stakes and some spare antenna wire, we were able to ground the antenna on the



fly, a ground rod will now be in our kit if we plan on operating for an extended period.

With a larger group, a SOTA compliant Winter Field Day adventure can be fun and successful. Make sure to bring a heat source, plenty of battery power and your wits! We were successful because of teamwork. There will always be setbacks and hitches, but if you work as team,

and have a plan, you can have a rewarding Field Day.



One Less Glacier in the Cascades: [Mount Hinman W7W/CW-004](#)

Kevin-K4KPK on the [De-evolution of Antenna Erection](#)

Review (tr)uSDX HF Transceiver by Troy-KF7SEY

Building kits is one of the many things I enjoy in our hobby. I have built a few over the years – more than I can actually use. They all have a common theme which keeps me from using them for general SOTA outings – that reason is that most are single band rigs. I don't want to get stuck with just one band. That means I have to take more than one radio.

I mostly operate CW, but do run other modes like Phone and FT8. That problem was solved when the (tr)uSDX by DL2MAN and PE1NNZ came out. This small rig packs a punch and can operate CW and SSB. It's multi-band, light weight and comes with standard bands of 20m, 30m, 40m, 60m, and 80m. There are other band RF boards that can be bought and built to have other band combinations. It's not a perfect radio, but for the cost it can be a very useful rig.



There are a few options when ordering one of these. You will want to start by reviewing DL2MAN webpage <https://dl2man.de/>. Make sure you purchase from an approved supplier as there are a lot of fake clones out there. He also has a YouTube channel with a lot of good info. I recommend watching them to get an idea on use and limitations. There are options for completed radios or if you want to build like I did, you can order a basic kit. For a case, you can buy one made or if you have a 3D printer you can make one.

Building is straight forward. All SMD's are pre-installed. Through-hole components such as final transistors, relays, toroids and buttons are easily installed. There are a few YouTube channels out there to follow for building instructions. [Andy-N7LFO has a video](#) that covers some of the build process. Powering the radio can be done with any 12v power source. 18650 cells can be used as shared by DL2MAN. There is even a case that can be purchased or printed to hold the cells. I chose to go with four LiFePO4 AA cells (bought on Amazon), these are used for solar lights. If you go this route you will want to watch your voltage to not drain too low as this setup does not have a BMS. One could easily buy one off Ebay and wire up to have low and high voltage cutoff safety. For now, I just use it as is. I have not come close to draining from one activation and I use a charger to not over charge the cells.

At the time of writing this, I have not used it on SSB. From everything I have seen, it is functional but does not produce the best audio. [K6ARK Portable Radio](#) has a few videos on its use. I have used it mostly for CW and found it functions well. From my perspective it works as good as my LNR Precision MTR-3B. I have made a few contacts with Tim-N7KOM, Josh-WU7H, and Darryl-WW7D from my home while they were activating. I have also made FT8 contacts with it and it seems to work well for digital modes. In the field I pair it with a linked dipole, reducing the need for a tuner.



Due to the plastic case I used, there can be issues with getting RF in the radio. Using RF suppression will help that such as baluns and chokes, (this could also cause SSB audio problems). There are some limitations such as the internal speaker. It really is worthless. It could be used in a pinch, but is not recommended. I use headphones like I do with all my radios. You could also use an amplified speaker, which works well. If you are going to use it for SSB, K6ARK has a mic that can be built for it. He sells it on Amazon and has provided the 3D model if you want to print it and build your own. You will need to source the parts. (Looks to be out of stock at the time of this writing.) You can also modify a Baofeng HT mic. The rig is small enough that it can fit in a small container so everything needed is all together.



All and all, I'm very pleased with this rig and at a price point \$93.00 for the kit or \$144.00 for a completed radio, one cannot really go wrong with it. I would have no issue with buying another one. For my needs it functions well. If you operate CW mostly and want the ability to grab a S2S SSB contact when needed this may be an option for you. Or maybe you just want a backup rig. It was a fun build and a functional radio with features that only come with higher priced radios. It really shines as a CW rig. But has other functions as needed.
Until next time, 73 de Troy-KF7SEY

Dan-N7CQR on "What is Lambic Keying" (and is that an eye or an el?)

As a SOTA and portable operator and a longtime CW op, I've made it a priority to help folks who are interested in learning and improving their CW. I wanted to share some thoughts and information about lambic keying, and the difference between A and B modes. This came up recently when I was visiting a Winter Field Day site. I was using another hams' radio and I changed the keying mode from A to B, and the question was "why? What's the difference?"

I want to step back a bit and talk about my general approach to CW (and many other things!). My 'day job' was a professional musician and my approach was always to try to make the technique of playing my instrument (string bass) as effortless as possible in order to concentrate on the music, not the technical bits. Also, because I would often be performing for an extensive stretch it had to be with as little fatigue as possible. Same with CW – I set out to make it as easy as possible so that I could concentrate on the conversation and exchanges. I started out on the straight key some years ago until I was introduced to paddles and the lambic method. After studying and practicing I realized I could send longer, cleaner and faster using this method. And of course, when you're doing an activation, you want to be able to make those contacts quickly and without too much struggle! Now-there are many ways to do CW and really it boils down to what works best for you – I don't think there's a right or wrong way. Some use paddles; some single lever or bugs. I find the lambic works really well for me – maybe you can try it and judge of yourself.

Basically, the lambic method is using a keyed to send properly spaced dots and dahs and to help complete the 'element', or character (letters, numbers, etc.) with some assistance. The idea is that you don't have to always make separate movements to send each dit and dah. Instead of making the letter 'R' with three motions by hitting the dit paddle, releasing and then hit the dah, releasing and then dit paddle again (I call this the slap method), you hit the dit paddle, hold it down and hit the dah and release and the dit will complete without you having to make a separate motion. Sort of a pinch, or squeeze (although that sounds like a lot of effort) but with a light touch. Now-this is where lambic B is really helpful-it completes the last element-in this case the dit in R without a separate motion. lambic A doesn't do that. At first it might seem awkward but with some practice you'll find it very easy to send with less effort and a lot less fatigue. Try this-hold down the dah paddle and then tap the dit side every so often and see how it inserts the dits. Don't release the dah! Then switch to dit first and insert dahs. Once you get comfortable with that try R and K. The trick is to learn when to release the dit side (for R) and the dah side (for K). Crank the speed down-it'll come back very quickly once you get used to it. Now try C and Q. For C, start with the dah side, hold it and then hold the dit side until you hear the second dah and release. The dit will finish, making a perfectly spaced C (once you get used to it!). Now try Q-hold the dah down and as soon as you hear the second dah start tap the dit side while you continue to hold the dah. Release when you hear the dit and the dah will finish. Every letter is slightly different-X and Z will take some practice, and numbers are more of the slap method due to no intermingling of dits and dahs. One benefit of B mode is that when you get comfortable with it, you'll also have less issues with having your paddles jump around if not securely mounted.

Give it a good try and see if it works for you-it might take a bit if you are used to slapping but you'll find that it's less effort, easier to control your spacing and your sending speed will pick up. One challenge we all face on an activation is getting the radio and paddles situated comfortably to minimize fatigue. For me I use mostly my KX2 with the Begali

Adventure paddles, which mount on the front of the radio, at somewhere between a 30–45-degree angle upwards. This works well for me whether I'm lucky to find a picnic table or using my little three-legged camp stool. I tend to have more wrist fatigue when using flat mounted paddles to the radio. Some ops use a paddle mounted to a clipboard or similar. Personally, I prefer to spend extra on a good set of paddles as I really notice the difference after making more than a few contacts. One last element to experiment with is the weighting of the keyer. This is really an adjustment that controls the dit to dah ratio, and is more of a 'feel' issue at moderate speeds. Some say that a heavier weight will make a weaker signal stand out; I prefer a lighter weight ratio as it seems more rhythmic and easier to send and copy. Experiment with the adjustment (assuming your radio has this-most do but not all). The other part of this is making sure your paddles are well adjusted and you'll find that you can use a lot less resistance on the paddle travel-a light touch will make it easier to complete those rag chews or pileups! Dan-N7CQR N7CQR@ARRL.NET

QRZ and GigaParts – HT Offer for New Hams

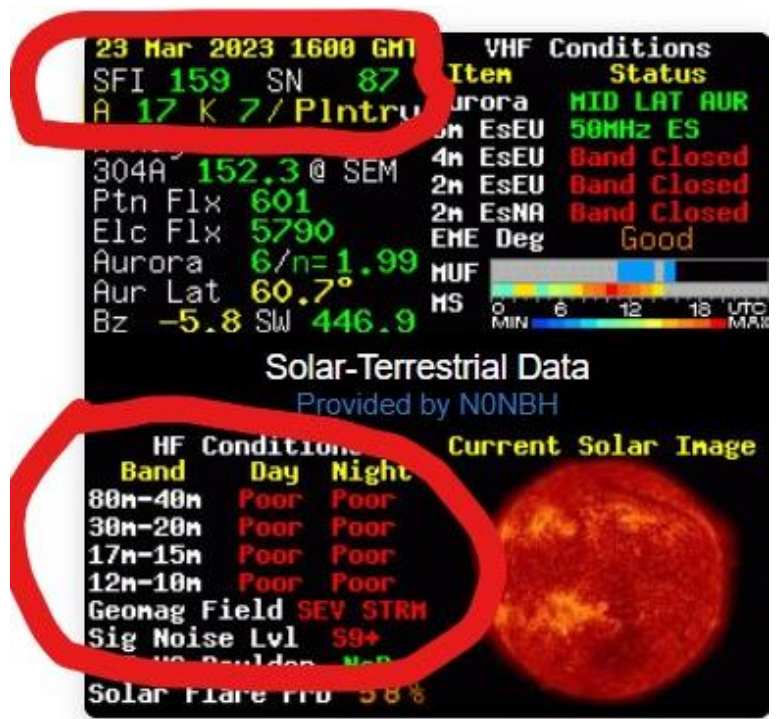
New hams who have recently obtained their first license from the FCC may apply for a heavily discounted welcome package that includes a new HT. Applicants must apply within six months of the license grant date per the FCC records. This program is expected to end the second quarter 2023.



The eligible ham must have a QRZ user account and be able to log in and apply for the program. Certain types of identification will be required. Find details here: <https://www.qrz.com/jumpstart>.

Propagation Conditions – by Guy-N7UN

(Via the PacNW SOTA Group on Facebook)
 I've had several email discussions about "Propagation Conditions" vs. band openings on 10m. When planning a SOTA day, I look at current propagation conditions. See the example image from <https://www.qrz.com/>. You can click on the qrz.com image to go to the source web page for more detail. I look at the SFI number and the A and K indexes. Notice from this snip that the A & K numbers are A=17 and K=7. Really, really bad propagation conditions. The K number indicates a severe geomagnetic storm which results in almost all HF conditions being "poor." This generally means that your SOTA HF operation will be a struggle to make HF contacts. Not impossible, but certainly challenging. For me, when solar conditions are like this, I do not plan a SOTA outing unless I can count on 2m QSOs. It's a situation where you wonder if there is something is wrong with your radio!



How to Use HamAlert to Know When Local Summits are Activated – by Tim-N7KOM

Many active SOTA hams in the Portland Metro area use HamAlert, SOTAGoat, or SOTA Atlas to be notified when there is a local summit spotted on 2m FM. With HamAlert (and the other apps) you can set up a trigger that will send a notification to your phone, tablet or computer (each app works differently, but they all have some kind of filtering for notification). This way, when there is a spot, our phones buzz (or beep or bleat) and we run to our radios and see if we can hear the activator. This often leads to nice pileups for the activator and plenty of QSOs in short order. <https://www.youtube.com/watch?v=omLmsd4v3P0>

Tag-Alongs Welcome! – Have you wanted to try Summits on the Air but don't know where to go? Does your S.O. tell you that you need to have someone go with you on your mountain/radio adventures? If so, watch for **"Tag-Alongs Welcome!"** on the [SOTAWatch](#) alerts page. If you would welcome another activator, please put **"Tag Alongs Welcome!"** in your alert comment with "Meet at trailhead" or "RSVP by email" to activate the summit together.

New Oregon Summits and Association Reference Manual – Periodically each Association reviews and updates the SOTA summits and the Association Reference Manual (ARM). It may seem as though mountains have somehow slightly relocated, but the reality is that surveying technology and accuracy improves so that some peaks are 'retired' for insufficient prominence and other summits are added or moved. The net effect for this update of W7O is that there are 48 'new' SOTA peaks in Oregon. It is essential that everyone activating in Oregon update their Google Earth, GPS, and other summit information to the new Summit References and coordinates. Here's a video that covers the process and some of the changes with this update: https://www.youtube.com/watch?v=qMO1rp_6CXA.

With all the new summits, remember that we really appreciate that **first** activators write up the **first** trip report! With recognition comes some help for those that follow you – reach out to Etienne-K7ATN for trip report guidelines.

Tree well rescue at Mt. Baker – https://youtu.be/wQ8Kgb_XUkk

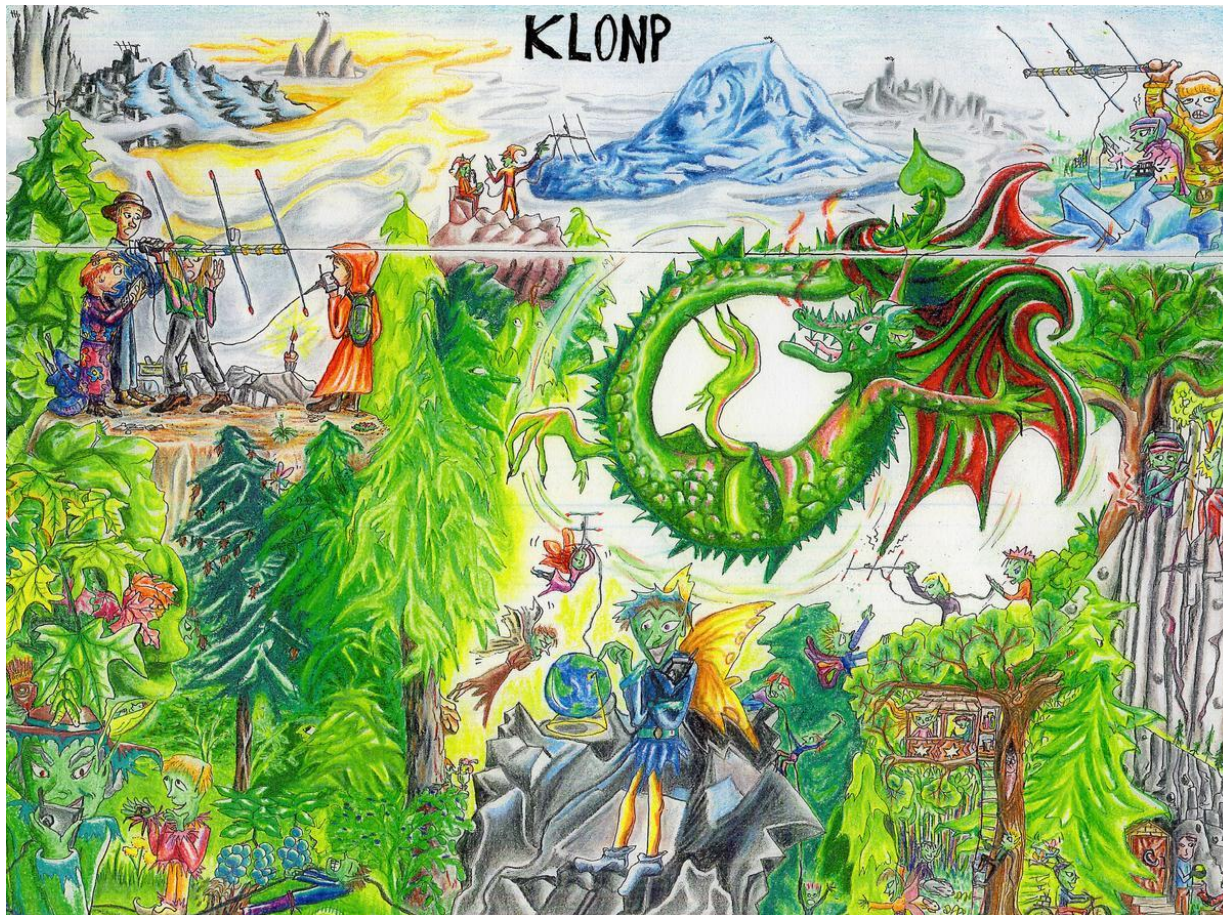


[Looking to Ditch Twitter? Morse Code Is Back](#) –
Smithsonian Magazine

Featuring Steve-WGØAT, of course.

ARTS PAGE

QSL for Will-KLONP by Dorothy Wallace-Senft – dorothyws@hotmail.com



Close Vicinity Activation by Bill-WJ7WJ

The rules of SOTA have some vehicular specifications and a vague reference. "Operations must not be in, or in the close vicinity of, a motor vehicle. No part of the station may be connected in any way to the motor vehicle." The words "close vicinity" doesn't warm the cockles of my engineering brain. So, I'm not exactly sure what it means to you, but here is an example of what it means to me.

In January there were a few groups of activators that alerted their summit intent for the weekend. The weather looked a bit too sketchy for me to do much of a hike, but I wanted to do the local S2S thing with them. So, I came up with a plan A and a Plan B. Both Plans started with a drive-up; Nicolai Mountain to be specific. From there it branched to a large rain break plan: just get out of the close vicinity of the vehicle and set up an HF/VHF station. Plan B was if there wasn't a rain break. I would work the other summits and local chasers on my HT when they arrived on their summits, and cower in my vehicle when waiting. It also involved setting up a screwdriver antenna and chasing (not S2S) some HF stations and possibly activating POTA as the peak is in the Clackamas State Forest and has a park number. When I arrived, I realized I would need plan C. The wind was 20-30 knots and laden with heavy mist. Too nasty to fool with the screwdriver as it is not mobile in the sense that I can drive with it. It has to be set up and taken down and only operated while stationary. Weather was too crummy for even that activity. So, I set up my homebrew Yagi on a tripod not in close vicinity of my truck. I spotted on 2M and received a few chaser calls. I then disconnected the radio and retreated to the

dry windless interior of the truck, which immediately fogged up. I waited for the goat and my 2M mobile to announce the first group of summiteers. When that happened, I jumped out of the vehicle and went to my tripod which had blown over. I straightened the Yagi elements that had been adjusted by the fall and worked the other summit. Then quickly retreated to the truck, stowed the tripod and put the Yagi on the back deck to wait again. While eating lunch and listening to an audio book another group of hardy SOTA activators reached their summit. At this point, and not before, it occurred to me how easy it would be to just grab the mike on my mobile and call. No one would know, right? Well, I would know. Then I thought about hunkering down on the lee side of Moby Truck, out of the nasty gale. Again, I would know. So, I put my phone on audio record, because no paper was useful with my radio in one hand and the Yagi in the other. Ran out to my "not in close vicinity" place and made the calls. In the end I made 8 S2S calls to 4 summits as well as receiving four other chases. Was it my favorite summit? Not by a long stretch, but it was a day out of the house and a story to tell. Isn't that why we adventure?

Sorry, but I can't keep my fingers from some lyricism:

SOTA has its rules, you dig.
Vehicle separation, be it small or big?
Not close vicinity
You don't need infinity.
But for sure, get outta your rig.

Your ideas for this newsletter are welcome. Share the newsletter with others and subscribe or unsubscribe using the checkbox at PNWSOTA.org – "My Account", "Edit", "SOTA". This newsletter is brought to you by the W7O Association Manager, Etienne-K7ATN. Find back issues here: www.pnwsota.org/content/pacific-northwest-sota-newsletters.