

Pacific Northwest SOTA Newsletter



Photo by Amy-AG7GP, Wagner Butte W7O/CS-027

April-May-June 2025

UPCOMING EVENT – SEAPAC Hamfest – seapac.org – May 30 to June 1 2025 in Seaside, Oregon.

UPCOMING EVENT – the [ARRL June VHF Contest](#) is a chance to make contacts on 6m and up. Starting at 1800z on June 14 and 15. Two-meter FM can work of course and be prepared to also give out contacts on 70cm FM as well (446.00). The exchange is [grid square](#). If you have SSB on 6m and 2m and horizontal antennas from a summit, you may find yourself very popular.

UPCOMING EVENT – [ARRL Field Day](#) June 28 and 29 – join a group or operate Field Day from your summit. Review the exchange and rules before you head out.

Our VE7 Adventure by Corrinne-KK7ULL et al

Jason-KC7EPG, Soren-KK7UKE, Niels-KK7UIX and I did our first activation in Canada on Black Mountain ([VE7/GV-013](#)) in early March. Conditions were great and we even got some sun at the end. We learned that it's easy for [U.S. hams to operate in Canada](#) – mostly just append “/VE7” to your callsign when in B.C. and as appropriate for other provinces.

I emailed with Bruce-VA7SGY before the trip, and he was super helpful for recommendations on summits, restaurants... even EV chargers! We had planned to meet up and activate Hollyburn Mountain (VE7/GV-011) together the next day, but the conditions weren't good that day and our son wasn't feeling well either. Both of those summits are in Cypress Provincial Park and we plan to visit again in the future.

The road and parking lot were bare of snow and we enjoyed a packed trail most of the way. Initially KK7UKE and I only got one contact on 2m on our 5w HT, so switched to our 50w mobile rig with a Yagi antenna and got six more with excellent reports. Bruce chased us and it was fun to connect on the air after emailing back and forth for weeks. KC7EPG and KK7UIX got 17 contacts on HF including their first with Japan on 10m. We talked to a number of Canadian stations

that were super welcoming and thanked us for activating. We loved staying in downtown Vancouver and all four of us agreed we should go back again for more SOTA fun in Canada soon.



SOTA *DON'TS* for HF Activators – by Darryl-WW7D

SOTA has grown tremendously in its 22 years and has particularly blossomed over the past few years. During weekends and sometimes during the week, there is a deluge of spots that beset chasers. At the same time, activators can find themselves overwhelmed by large pile-ups that, a decade ago, were rare. Therefore, it is worth thinking carefully about practices that contribute positively to successful SOTA activities. It is also worth considering practices to avoid.

For the past year or so, while chasing SOTA, I've kept a list of practices by HF activators that (in my opinion) make it unnecessarily difficult for chasers. Some of these practices create minor inconveniences, some waste chaser's time, a few lead to confusion, and one is illegal. Here, I present my collection of "SOTA DON'TS" — things that activators ideally should avoid. I've intentionally made this a list of DON'TS instead of DO'S because, in the frenzy of an activation, it may be easier to remember things to avoid than it is to embody a list of good practices.

For some of these issues, what is obvious to a chaser can be hard to fully appreciate from the activator's perspective alone. As a chaser, I hear most of these sub-optimal practices on a weekly basis, and some I hear every day that I chase. This list is offered for your consideration in the spirit of optimizing the SOTA experience for everyone. I've separated these into three categories: Spotting DON'TS, CQ DON'TS, and Operating DON'TS.

Spotting DON'TS:

The general issue with spotting is that every spot causes small interruptions in the lives of, perhaps, hundreds of people. These are people who choose to be interrupted so that they can chase us. Therefore, it behooves us activators to minimize needless interruptions.

- Don't spot yourself before you are completely ready to operate.

SOTA in North America is blessed with an active chaser community always ready to spring into action. As a result, a chaser will usually appear within a few seconds of your spot. This means you should be ready to call CQ the instant your spot appears on SOTAWatch. Call QRL? on your intended frequency before you spot. Have your radio and log ready to roll, spot yourself, and immediately start calling CQ.

I will usually start my pre-recorded CQ just before posting a spot. This helps hold the frequency while typing in the spot details. Under no circumstances should you spot yourself 20 minutes, or even 5 minutes, before you are ready to start. That is, never spot with, for example, "QRV in 10 minutes" as a comment. Chasers don't always see the comments until after they have dropped what they are doing, run into the shack, fired up the radio, turned the antenna and listened for you. Additionally, some chasers will only listen for a minute and then resume what they were doing before or chase someone else, leaving you with fewer chases.

- Don't spot with your frequency in KHz.

SOTAWatch and most other spotting methods require that frequencies be entered in MHz. If you spot with frequency in KHz, it causes logging problems for chasers. Don't list your frequency as, for example, 14332 KHz; rather, use 14.332 MHz.

What problems does this cause? First, it creates difficulty for people using web logging. Chasers must edit the frequency back to MHz to prevent the database from rejecting the QSO (or accepted it as a microwave QSO). Secondly, some spotting applications allow chasers to filter spots by band. If you post a "microwave" frequency, some chasers will never see your spot.

There are also spotting applications that require frequencies in KHz. Those applications convert the frequency into MHz for SOTAWatch. So, know the correct format for your application and make sure your frequency will always show up in MHz on SOTAWatch.

- Don't spot unnecessarily.

Every time a SOTA spot goes out, hundreds of chasers are notified via computer beeps, phone chimes, or wristwatch vibrations. With each spot, the attention of many potential chasers will be diverted from whatever they are engaged in. As a courtesy to the chaser community, don't spot more than necessary. Here are some ways to fruitfully minimize spots:

1. If you post an alert, let RBNHole spot you instead of spotting yourself (this doesn't work for SSB, of course).

2. If you know that you will have data service from a summit and prefer to spot yourself, you can prevent RBNHole from spotting you by adding “NORBN” to the comments of your alert. This greatly reduces the frequency of duplicate CW spots. This also avoids the all-too-common glitch of getting an RBN spot on your last CQ on one band, just as you are moving to another band.
 3. If you’ve tapped out all the chasers on a band with your current spot, go to a new band or mode instead of re-spotting on the current band. As a bonus, you’ll likely reach new chasers who couldn’t hear you on the first band.
 4. Never post “message spots” to tell your chasers things like you are starting your hike or that you are setting up your equipment. The SOTA management team frowns on this use of SOTAWatch. More importantly, chasers don’t really need or want to know that information. Chasers want to chase you on the radio, not on the internet. If you really want chasers to follow your progress, make APRS or InReach information available and note it in your SOTA alert. To most chasers, message spots are false alarms that waste their time.
- Don’t update your spot by editing it on SOTAWatch.

You can edit spots on SOTAWatch, but the edits only show up on SOTAWatch. The edits will not be propagated to other spotting applications (SOTAAActivator, SOTAGoat, SOTAWATCHFilter, etc.). Instead of editing your spot, post a new spot for a band or frequency change, or to correct an erroneous reference.

- Don’t post QRT or TEST spots with valid frequencies.

The SOTA IT team recently introduced new QRT and TEST spot types. If your application allows you to select this type of spot, then use it. Otherwise, if you feel you must send a spot with the comment “QRT” or “TEST”, always use a band edge frequency and “Other” as the mode. For example, use “14.000 Other” instead of “14.322 SSB”. For many apps, chasers cannot see the “QRT” or “TEST” comments at first pass and without taking extra steps. If “14.322 SSB” shows up in your spot, the chaser will be quite annoyed for being lured into the shack only to learn you posted a QRT or TEST comment.

CQ DON'TS

- Don’t send long CQs.

The overwhelming majority of your chasers will find you via a spot. This means that short, simple CQs are effective and efficient for activator and chaser. Consider two scenarios. The first is that you spot yourself followed by quick CQ. You may need to send a couple of quick CQs until the first chaser or two come back to you. Chances are, you will find it easy to copy callsigns for at least your first several QSOs.

The second scenario is that you spot yourself and then launch into a single 5-minute CQ. Now, almost every chaser who wants to work you will simultaneously respond. The cacophony of callers will make it difficult to pick out even one call. In summary, short CQs work better, allow you to work more chasers in the same period of time. And short CQs will save your battery from “CQ depletion.”

You can use a longer CQ to trigger RBN. A good pattern is three CQs followed by your callsign twice with SOTA thrown in after the cluster of CQs or your callsign. Once you are spotted, use something shorter. I like “CQ CQ DE WW7D SOTA K”.

I recommend that you not send your reference with your CQ. It takes too long and isn’t necessary. Instead, consider sending your reference only with your first QSO.

- Don’t leave long, empty pauses between unanswered CQs.

Keep making short CQ when no chasers are responding. This gives chasers a chance to twiddle knobs on their radios to peak up a weak signal or null out QRM. It will also help you hold the frequency.

- Don't call CQ immediately after each QSO.

Pause for a second for other chasers to send their call. If nobody calls within a second or two then make a quick, simple call like, "QRZ W7XYZ." If you still get no response, give a short CQ.

Operating DON'TS

- Don't ragchew while chasers are waiting.

Some operators talk too much when they have a pile-up. If you know you have chasers waiting, go into "d Expedition mode" and work chasers efficiently. When things slow down, you can, perhaps, talk about the weather, the hike, and the spectacular views.

- Don't send your callsign too frequently.

At most, send your callsign once per QSO. Some hams believe you must send your callsign for every QSO, but part 97 does not state that. A careful reading of the FCC rules suggests that you only need to send your callsign once every 10 minutes and at the end of your use of a frequency. (The rules differ for Canadian reciprocal operating privileges and for international 3rd party communications.) Consider operating "contest style" by sending your callsign with your CQs and QRZs and every 5 minutes (or so) while working a pile-up.

- Don't make bad band choices that exclude chasers.

One objective for every SOTA activator should be to provide maximum opportunity for chasers to chase you. Therefore, if you are going to all the trouble of setting up HF, maximize your chasers by working several HF bands with different propagation characteristics. In other words, use combinations of bands that maximize the coverage of potential chasers. Propagation changes throughout the day, at the whims of solar activities, across seasons, and across the eleven-year sunspot cycle. That said, we can categorize bands as falling into three daytime propagation categories:

1. Long bands (frequently 10m, 12m and sometimes 15m) that are great for DX, but futile for chasers within a couple thousand miles of your summit.
2. Medium-range bands (often 20m and 17m) that will usually cover chasers over medium distances of, say 500 miles to 2000 miles.
3. Short bands (usually 40m) that might cover chasers within 400 or 500 miles.

For HF activations, at a minimum, consider using a short band and a medium band. This usually means doing at least 40m and either 17m or 20m. During 2024, with the 10m challenge there was an unfortunate tendency of some activators to only do 10m, or to combine 10m with 40m. That practice left out many chasers in a huge "doughnut of exclusion" explained in Figure 1.

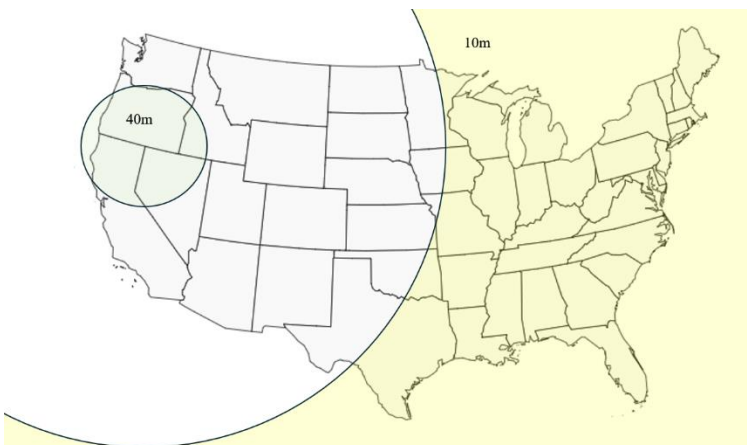


Figure 1. The "doughnut of exclusion" created by doing only a long and a short band. In this hypothetical example a summit is being activated in south central Oregon. The 10m band has propagation (in yellow) that skips over about 1500 miles. Propagation for 40m is short (in green) and only extends out to about 300 miles, barely reaching Washington or central California. The "doughnut of exclusion" shuts out all chasers from 300 miles to 1500 miles (unshaded). In this case, a medium band (20m or 17m) would be needed to accommodate chasers from most of the Western U.S.

This “DON’T” is more like a “DO.” That is, DO activate multiple bands that allow you to reach as many chasers as possible. You will want to evaluate how each band is behaving by the locations of your chasers. For example, if you find that all your chasers on 17m are from the east coast, it suggests that you need to work 20m or 30m to catch chasers at a medium distance. If you are working the Midwest on 30m, it suggests that 40m (or 60m) will be needed to catch chasers closer in.

- Don’t choose bad frequencies.

Frequency selection is an important part of being successful with your activation, but also to stay legal and avoid interfering with others.

- Don’t dominate the QRP calling frequencies.

You might feel it is okay to use QRP calling frequencies because you are QRP. But consider this: the QRP calling frequency is a watering hole for the broader QRP community. Non-SOTA QRP enthusiasts don’t necessarily have the large community of chasers and spotting resources that SOTA activators have. Some QRP enthusiasts use crystal-controlled radios that may only be able to work on a calling frequency. If you end up with a 20-minute pile-up on the QRP calling frequency, it prevents other QRP folks from using their radios. SOTA doesn’t need a calling frequency because spotting is the predominant way chasers and activators find each other. (As an aside, this advice applies to VHF, as well: avoid dominating the 2m calling frequency, 146.52 MHz, when operating near populated areas.) Another reason to avoid QRP calling frequencies is that it increases your chance of having (or creating) QRM. I frequently find that SOTA activators on 14.060 MHz or 21.060 MHz have QRM, probably from QRP stations the activator cannot hear.

- Don’t operate in the wrong part of band without good reason.

For example, on 20m CW, stick to about 14.057 to 14.067. Below that, and you run into increasingly heavy usage and DX pileups. Above 14.067 MHz, and you are likely to run into digital signals. Sometimes, like during HF contests, it is necessary to go up higher in the band to find a clear frequency. But otherwise, default to the conventional “SOTA” portions of the bands.

- Don’t operate outside of band and mode limits.

Over the years, I’ve heard SOTA activators making SSB CQs on 14.140 MHz and even 14.360 MHz. But even 14.348 MHz SSB puts your signal outside the upper limit of 20m. Problems on WARC bands include operating SSB below 18.110 MHz or operating at all below 10.100 MHz. Know the band and mode limits for your intended operations. Keep a ham frequency allocation chart on your smart device so you can quickly look up the limits.

- Don’t send a SOTA reference with each QSO.

It isn’t necessary. Almost every chaser sees your spot that includes your reference. Save your battery capacity and save everyone time by skipping this. Yes, I know the SOTA general rules strongly recommend sending a reference with each QSO, but spotting technology has significantly evolved since that recommendation was created. That said, it is a good practice to send your reference for your first QSO. Also, if a spot has your reference listed incorrectly, do send your reference with each QSO.

It is customary to send a reference with an S2S (Summit-to-Summit) contact. If the other summit called you, send your reference only once—they almost certainly see your spot and already know your reference. And if they don’t know your reference, they can ask for it.

- Don’t send your state as part of the exchange (usually).

An increasing number of (mostly new) activators send their state with the exchange. If you are operating in associations that cover only a single state, like Washington, Oregon, Idaho, Montana, and California, then this practice is unnecessary. Chasers will already know your reference and, therefore, your state. If you are operating in associations

like W2 or W9 then, sure, give your state if you want. Otherwise, save everyone's time and save your battery capacity by skipping this. If a chaser wants to know your state, they can ask.

- Don't ask an S2S station to stand by while you work another chaser.

If you know another summit is calling you, immediately stop working other chasers and make the S2S exchange. That is, prioritize S2S QSOs over other QSOs. There are good reasons for this. The other operator may need to leave their summit because of bad weather, biting insects, or a curious bear cub approaching. Additionally, propagation may change in the next few minutes, rendering the S2S impossible. Almost all your non-S2S chasers are sitting in a comfortable chair in a climate-controlled shack. They can wait...

- Don't share QSOs among multiple operators.

How do you operate efficiently with one radio and multiple operators? Some groups pass the mic or key around and have each activator work every chaser. This typically isn't a very good experience for chasers. It is difficult and confusing unless your signal is quite strong. It takes extra time to get through each QSO, and other chasers who haven't yet figured out what is going on will call between each individual QSO, adding QRM and confusion. The experience can be chaotic.

Here is an alternative approach: have one person operate at a time. Have each working a different band (see the next point). The only time to share QSOs is (1) for S2S QSOs for all activators interested in chasing S2S, (2) when signals are very strong (like on 2m FM in a good location) and (3) when you are concerned about everyone getting four QSOs—and then, stop passing the mic around after everyone has four QSOs. Seriously, it is hard to overstate (from a chaser's perspective) how difficult most QSOs are when a mic is being passed around.

- Don't repeat the same bands with different operators.

If you have multiple operators on a summit, go for band diversity, rather than having operators repeat the same bands. This will give chasers the greatest chance of working your summit. When Josh-WU7H and I activate a summit together we may end up each working 2 to 4 unique bands/mode combinations without any duplication.

- Don't leave a frequency while there are still callers (without a very good reason).

It is very frustrating to invest a lot of time chasing an activator, only to hear a QRT or QSY announcement while there are still stations calling. Going QRT is understandable if the weather has taken a turn for the worse, or the like. Otherwise, even if it means falling a little behind schedule, work everyone that is calling you before leaving a frequency.

That concludes the list of DON'TS. Obviously, there are completely valid exceptions to most of these points. In 2017, I was attempting to activate Blacktail Butte (W7Y/TT-162) in Grand Teton National Park. I set up on the summit only to find I had no cell phone coverage whatsoever for spotting. I did have service on the way up, so I wandered away from my station until I found cell service. I spotted on 20m CW, but it took me 5 minutes to hustle back to the radio. I made plenty of QSOs, but I only did 20m on that activation. I did two of the DON'TS in that activation, but under atypical circumstances.

I'm sure this list will get some mixed reactions. There will be activators who will staunchly defend regularly engaging in some of the DON'TS. That's fine. My aim is to make activators aware of and consider how some of our practices affect chasers. Our success as activators depends on an enthusiastic group of chasers, so we should strive to keep chasing rewarding and enjoyable.

A Trashy Tale by Jeff -WJ7V

On a recent outing to Washington State's "Bobs Mountain" (W7W/LC-139), Etienne-K7ATN, Bill-WJ7WJ and I had a rather rude awakening. Easily accessible from the Portland Metro area, Bobs is a good early season choice for a near urban activation.

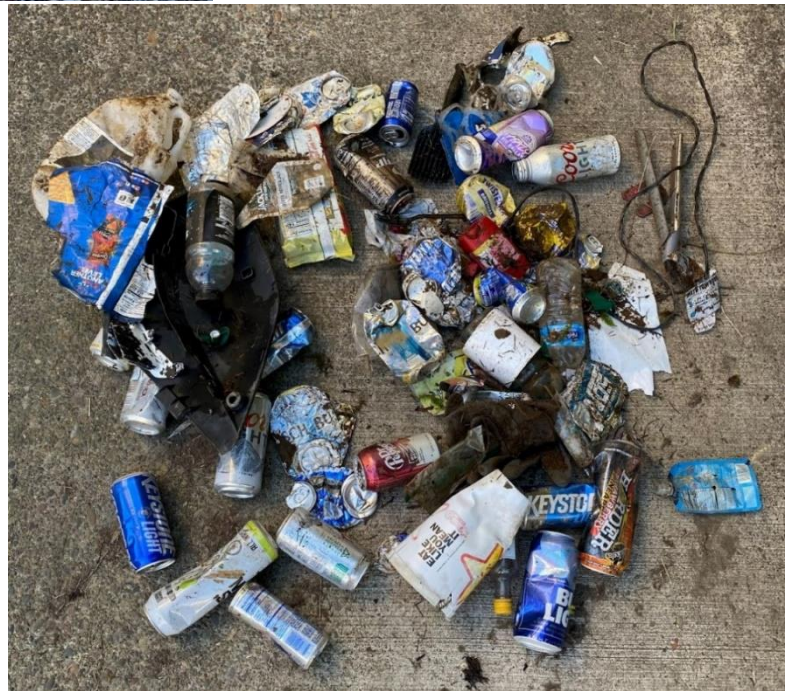
While the area has been used by 4-wheelers, ATVs and for target practice for quite some time, the state of this public land had particularly degraded over the last few years. The problem has become so bad, Washington State DNR installed a new gate to attempt to keep vehicles and their trash out of the area. This was proving ineffective as there were clear signs of vehicles going around the gate.



The price we all pay is longer hikes and decreased access to public lands. While SOTA practices a leave-no-trace ethic, land management officials may not see a distinction between user groups in their effort to manage more and more land with fewer resources. As such, we can be a direct force in improving the situation for everyone, if even in a small way.

I often carry a trash bag with me in my pack. This can be a useful tool for getting out of the rain, covering equipment, using as a ground tarp, sitting pad, etc. On this occasion, we vowed to collect trash we found on the way back out. This added minimal time to our exit but yielded a very positive result.

A few items didn't make it back with us, such as a car bumper, broken glass and a curling iron (?), but if we all contribute in a small way to caring for our public lands, the burden is minimal and the investment pays off for all future users. Consider adding a small trash bag and some disposable gloves to your pack today. It weighs nothing and helps everyone.



Maintaining Your Gear – DeoxIT for Paddles and Plugs

Dan-N7YY introduced me to this product when my paddle contacts were “misbehaving.” Applying a drop or two on a small piece of paper and drawing it across the contacts have restored clean operation to several of my paddles. SOTA operation exposes our gear to dampness and dust – a bit of regular maintenance can keep your fist sounding fine business rather than QLF.

What Came Before the KX2 – Vintage Rigs: Ten-Tec Century 21 – by Josh-WU7H

If you were a Novice Class ham in the mid-to-late 1970's, the Ten-Tec Century 21 was a very attractive option. The rig is CW only with a great sounding direct conversion receiver. Ten-Tec was always known for its amazing full-break-in QSK, and the C21 does not disappoint.



This also means that when you are sending CW you don't have to listen to a loud relay clacking away inside the rig. The transmitter puts out about 20 to 30 watts and the rig has 5 bands (80/40/20/15/10). The filter is AF based (not crystal) and very effective, with 3 positions: 2.5, 1.0, and 0.5 KHz. The radio has no AGC, so it is standard practice to keep your left hand on the RF gain control and adjust as needed to keep from rupturing your ear drums when using headphones.

The rig was designed by Dick Frey K4XU when he was the chief engineer at Ten-Tec in the 70's. Some of you might have met Dick as he is president of the Central Oregon DX Club and very active in 7QP and some other contests. I acquired this particular C21 from my friend Dick W2WC (an avid SOTA chaser, you might recognize his call). It came to me from NY with a broken dial gear and a 'stuck' PTO. I was able to fabricate a new gear with my 3D printer, and the PTO only required disassembly / cleaning and regreasing. The rig now works perfectly and is a pleasure to operate. [Check out my YouTube channel to see the rig in action.](#) [Preview YouTube video New Ten-Tec Century 21! QSO with WB0RLJ](#)

SOTA WeatherBot – An Excellent Resource for US SOTA Ops

The [SOTA WeatherBot](#) has delivered 10,000+ weather forecasts since going online in May 2023. As a recap, it's a free service which emails activators a summit-specific weather forecast 24 hours in advance of activation time – assuming they are subscribed and have posted an alert on [SOTAwatch3](#). The forecast summarizes terrestrial and space weather conditions for the hours spanning the posted activation time. Forecast data is provided by the National Weather Service ([NWS](#)) and National Oceanic and Atmospheric Administration ([NOAA](#)). Click on the link above to sign up.

activator - K7ATN
summit - [W7O/CN-059](#)
name - Clear Lake Butte
region - OR-Cascades North
county - Clackamas County, OR
points - 2
grid - CN95dd
latitude - 45.1564
longitude - -121.7185

				REL PROB			
UTC DATE	@ TIME	FLUX Kp	TEMP	WIND	HUM	PRECIP	FORECAST
=====							
2025-03-06	@ 16:00	150 2+	29 F	NW @ 2 mph	87%	--%	Partly Sunny
2025-03-06	@ 17:00	150 2+	32 F	NW @ 2 mph	78%	--%	Partly Sunny
2025-03-06	@ 18:00	150 2+	35 F	NW @ 2 mph	68%	14%	Sunny
2025-03-06	@ 19:00	150 2+	37 F	NW @ 2 mph	60%	14%	Sunny
2025-03-06	@ 20:00	150 2+	39 F	NW @ 2 mph	57%	14%	Sunny
2025-03-06	@ 21:00	150 3-	40 F	NW @ 5 mph	54%	14%	Sunny



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.