

# Pacific Northwest SOTA Newsletter

November-December 2018

Tim-KG7EJT photo from Park Butte-W7W/WH-162

**Dave-N7LKL Offers his Activation Prep Suggestions** – Many SOTA operators have a pre-activation checklist to insure they can find the summit and can put out a signal once they get there. I'd like to share some of the preparations and web sites I have found useful. Everything described below is FREE, a quality I greatly value!

Much of my preparation is GPS related as I don't carry a smart phone, nor would I want to assume cell service will be available. My first stop is **GMapTool** at <http://www.gmaptool.eu/en> which is a "site dedicated to fans and users of GPS." Here you will find topo maps for much of the world including all of the continental US, Alaska, and Hawaii. The continental US is divided into six regions, each of which can be downloaded separately. The Pacific region, for example, is at <http://www.gmaptool.eu/en/content/usa-pacific-osm-topo-routable>.

My GPS unit is a Garmin and the downloaded maps are compatible with their MapManage, MapInstall, and BaseCamp applications. The maps for each region are tiled so if your GPS unit is memory limited, you can install just a subset of the region relevant to your upcoming activation. I have found that the maps include most trails with a high level of accuracy. So an additional pre-activation step is to display the intended route and generate waypoints for critical junctions, the trailhead, etc.

My next step is the **SOTA Mapping Project** at <https://www.sotamaps.org/>. You've probably been redirected there when

selecting the SOTA Map option for a summit at the SOTAwatch site. But there's much more here. Take a moment to check out the Overview page which describes the site's many features including, among others, finding all summits within a specified distance of a point, and mapping alerts and spots in real time.

Pre-activation, I always generate waypoints for my intended summit and all nearby summits. You never know when a trail might be

Summit Code	Summit Name	Range	Dist. (mi)	Dist. (km)
W70/CN-027	Signal Buttes South	203.9	0.075	
W70/CN-032	Tom Dick Harry Mtn	66.4	4.482	
W70/CN-033	Devils Peak	360.0	0.000	
W70/CN-034	Limney Butte	181.5	4.693	
W70/CN-035	Zigzag Mountain	179	5.969	
W70/CN-038	Veis Butte	94.8	4.954	
W70/CN-042	Wolf Peak	179.7	6.620	
W70/CN-043	Eureka Peak	84.4	5.309	
W70/CN-050	Multnomah Mountain	71.7	6.454	
W70/CN-062	Mud Creek Ridge	51.2	7.237	
W70/CN-082	Chasers Rock - 4980	126.1	1.621	
W70/CN-082	4980	216.4	4.685	

closed and you need a Plan B for an alternate summit or you've got extra energy and want to turn the day into a two-fer. For example, the other day I had planned on activating Devils Peak (W7O/CN-033) but it turned out that all trails in the Zigzag Ranger District were closed. Above is the result from mapping all summits within 10 miles of Devils Peak.

Once the search criteria are refined to what you want, you can export waypoints in GPX, KML, or CSV format. One of these formats should be acceptable for your GPS device.

Simple wire antennas are preferred by many activators for their light weight and flexible setup. But with the increased popularity of loop antennas for HF and handheld yagis for VHF, sometimes one does need to know where to point things. I use NS6T's azimuthal map generator at <https://ns6t.net/azimuth/azimuth.html?> to help in this regard. The maps can show a 5,000-mile radius centered on Portland's Maidenhead grid of CN85.

Operationally, I'll orient the map using my compass to align the map's north with true north. (You do have a real, old-school compass with you, right?) Then just aim the antenna in the direction of your target as indicated by the map. For VHF contests and SOTA activity days with their potential for S2S contacts, I generate a map with a much smaller radius but tick the option to include city names. The resulting map identifies where to point your yagi for metropolitan areas. If you know of other activators beforehand you can manually mark their locations as well.

If I've been lucky enough to convince my XYL or daughters to come along, then I make a final visit to <https://www.geocaching.com> to search for geocaches along the route, and especially near the summit. Geocaching is a great way to make the outing interesting for the non-radio people in your party. From their perspective, searching for geocaches is way more fun than waiting in the sun/wind/rain while you call CQ. You can search for caches by lat/lon and results are shown in increasing order of distance. You'd be surprised how many summits have caches nearby. Oh, and don't forget to decrypt and bring along the finder's hints in case your searchers get stumped.

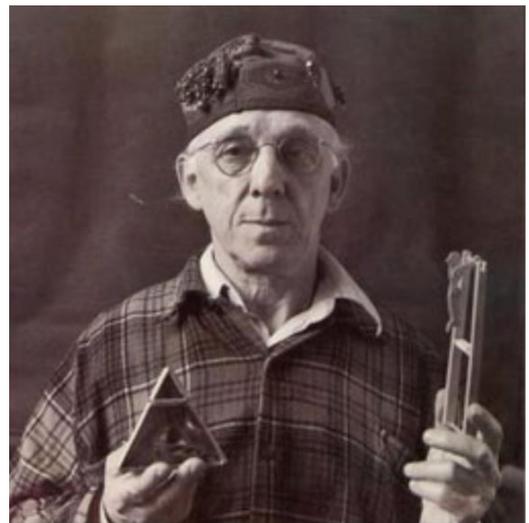
**Upcoming Events** – It looks like there's not a lot to consider besides the start of bonus season in December. Besides that, for your holiday gift giving, consider contributing to SOTA to help support the online database, SOTAWatch, and everything else we enjoy from this great radiosport. Donations here: <https://sota-shop.co.uk/donations.php>.

**I've been on the lookout for some good SOTA videos** – And I found this one from Troy-KF7SEY describing his Hilltopper 20m CW transceiver: <https://www.youtube.com/watch?v=g0rDc39aySM>.

**SOTA Theme Song** – We clearly need one, and it was here all along with Ivor Cutler and his 1975 ditty, *Little Black Buzzer*. Don't you think that Ivor probably had some friends that were into winter hillclimbing and carried their portable CW rig up with them?

Ivor actually appeared in the Beatles' 1967 film, *Magical Mystery Tour*. Sadly, [another band](#) also covered *Little Black Buzzer* but messed up the CW that Ivor took pains to voice properly.

If you need to know a bit more about Ivor Cutler, here is a [documentary](#) (or at least parts 2, 4 and 6 of 6 parts).



**Mountain Goats Aren't Actually Goats** – Mountain goats are part of the antelope family. Sorry about that.

<https://www.youtube.com/watch?v=0vGBSUjQDzo>

And mountain goats don't say, "baahh." Actually, mountain goats are quiet...listen at 1:23 for the loudest noise a mountain goat might make: <https://www.youtube.com/watch?v=0FDOidg0HuM>. Sounds more like "meehh" to me. But to cheer you up, consider that a group of goats can be referred to as a tribe, trip, drove, herd or flock. I think that **tribe** best suits our bunch of radio Mountain Goats.

**Portable Radios** – A few years ago this newsletter included a couple of links with lists of QRP and portable HF transceivers. There are a lot more radio choices now and these updated and two older lists may be of interest for those considering what radio might suit their SOTA activating interests:

[https://en.wikipedia.org/wiki/List\\_of\\_QRP\\_Transceivers](https://en.wikipedia.org/wiki/List_of_QRP_Transceivers)

<http://www.qrptransceiver.com/>

[http://hamtennas.com/docs/Portable\\_rigs.pdf](http://hamtennas.com/docs/Portable_rigs.pdf)

<http://fofio.blogspot.com/2015/07/radio-kit-guide.html>

**W7W SOTA Gathering** – On a Saturday in October, rather than be out in the mountains with a radio, these seven Washington State Activators gathered for a bit of fun. Pictured are starting at left in back are Chris-WX7EMT, Josh-WU7H, Dan-KA7GPP, Chuck-KE7JWP, Mark-K7MAS, Darryl-WW7D and the host Tim-KG7EJT.



**The Competition is Real!** – Todd-W7TAO has a very enjoyable father/daughter activation with his youngest, Katie-KI7HCX. One of their favorite peaks, Dock Butte... or what they call it. Katie wrote the story of course, being competitive as she is.

“Dad, you did remember ALL the cables this time, right?” I questioned as we packed the KX3, our lunch of peanut butter and honey sandwiches, and my new raincoat into Dad's backpack. I got my ham radio license three years ago when I was nine years old, which is one year younger than my older brother was when he passed his test. While I don't really appreciate long-winded radio club meetings, I enjoy combining my passion for ham radio with hiking in the beautiful outdoors.

We hopped in the car and started out. Today we were headed to Dock Butte (W7W/SK-100), which we affectionately refer to as “Dog Butt.” I’ve been up this peak before, but today is my first time officially activating it using my very own license. I’ve been hiking and making radio contacts long before I ever had a license of my own by using my dad’s call sign. I’m a fourth-generation ham carrying on the legacy of my great, great grandfather, Bill Brown, Senior.



As we started up the trail, it was drizzly, but as we climbed higher and higher it would go back and forth between rain showers and sunshine. It had been a long, hot month of August, so I was excited to be in the rain and try out my new rain jacket. We saw lots of delicious, wild blueberries, which gave my dad the chance to pretend they were poisonous and fake his painful death a few times and tease me about how I would get home.

We reached the summit and Dad immediately set up the radio without even looking at our lunch. I was starving! I let him do all the heavy lifting of set up while I worked through my sandwich. Once the station was set, we started making contacts. Not that it was a competition, but I want to mention that I smoked my dad with 14 voice contacts, even though he had the CW advantage but only made 12. For a while, I had a small pile-up to work through, which is always exciting. I was also elated that I was able to reach Pennsylvania thanks to Gary K3TCU! Dad kept me entertained when he nearly hit himself in the face with a rock as he pulled the dipole down... I wish I had gotten a video of that.



On the way back down the trail, we picked more blueberries, which made for an amazing syrup on my pancakes the next morning. On our way home, we chatted about another great ham radio hiking adventure, laughed at Dad’s mishaps like forgetting the coax on our previous outing, and looked forward to more peaks that we want to explore.

**What’s the Fuss about FT8?** – There have been a few SOTA activations using FT8 and this article by Gerald-K5SDR (CEO of FlexRadio) present a positive overall picture for this digital mode. <https://www.flexradio.com/ft8-tipping-point-for-ham-radio/>.

**Throw Bag...Get Your Antenna Up in a Tree** – Darryl-WW7D provides his insights for ditching the antenna pole and using trees – with a thoughtful throw bag to get your wire up high.



Tall trees are found on summits all over the Pacific Northwest. These make excellent antenna supports for wire antennas of all flavors. I've used an end-fed "random wire" for most of my HF activations. On summits with tall trees, I'll save the time of deploying a squid pole and simply throwing the wire up into a tree.

Getting the antenna up into a tree can be as simple as tying the wire around a rock or a water bottle, and flinging it over a tree. I started with this method, but after a few breaks of the #26-gauge antenna wire, I added about 20 to 30 feet of twisted polyester mason's twine. This twine is lightweight, slippery, strong and easy to handle. A lifetime supply can be purchased in a 1000' roll for about \$16 (<https://tinyurl.com/SOTATwine>). Now, one end of the twine can be tied to the rock, and the other end to the antenna wire. With the right technique, one can get the antenna up quite high.

The problem with this method is that it takes some time to securely tie (and later, untie) the twine to the rock. And sometimes the rock breaks free. The next step up in this process is to include a small tie-string bag that can hold the rock or water bottle. In my experience, this results in much faster antenna deployment.

Drawstring bags come in a variety of types. I started with a small nylon mesh bag about 5" wide by 6" long. That bag lasted about 10 activations before the rock broke through the mesh. Next, I tried a nylon bag about the same size. It lasted a few activations before splitting from the landing impact.

I found a microfiber bag that worked even better. At 0.4 ounces, the bag weighs a little more than the mesh or nylon bags, but has been quite durable after more than 30 activations. These bags can be purchased in 6-packs on Amazon (<https://tinyurl.com/SOTAMFbag>) for about \$8. They are 4" x 7.75" (although 5" by 6" works better if you can find them). A 500ml water bottle slips into



the bag and makes an excellent weight when an appropriate sized rock is not available. Of course, you can fill the bag with dirt, ice, gravel, or anything else that provides enough weight to tug the bag back down to the ground.

Here is how I typically deploy my antenna. I uncoil the wire and twine, and tie one end of the twine to the wire. The other end of the wire I tie to a tree branch near the radio to keep it from flying away with an exceptional toss. The other end of the twine is already tied to the drawstring on the bag. I hold the twine about two feet above the loaded bag, and after a few swings the twine is released on the up-stroke. The technique is easy with a bit of practice. For short trees or cramped summits, I will sometimes tie the antenna directly to the drawstring bag.

There are a couple of things to pay attention to. First, be careful of other people and your gear. If you botch the toss, the rock could come down hard on someone's skull or your KX3 (or both). Be certain there is enough weight for the bag to come all the way down to the ground, since you will probably not be able to pull the bag back towards you. A 500ml plastic water bottle is about the right weight, but a little heavier is even better. Too much weight and the toss will be more difficult. Since I've started using a bag, I've not lost an antenna in a tree.

It is also important that the bag lands where you can get to it. Don't toss the bag over a drop-off or to the other side of a fence. To retrieve your antenna, disconnect it at the radio end, hike over to the bag, and pull it through while winding the twine. Untie the wire from the twine, finish winding the twine, and store the twine in the bag. Then wind the antenna wire. I store the antenna wire in a separate bag to prevent tangles. The twine will eventually get loose and become frayed from the trees, so I replace it after every 30 or so activations.

**Mountain Goat Salad** – For those of you that have read this far, I hope that this delicious salad might make up, in some small way, for my earlier “recategorization” of our beloved Mountain Goat mascot. Yes, it really was good.



**Troop 850 Fifty-Mile'er...with Extra SOTA Sauce by Josh-WU7H** – Every year our Boy Scout troop goes on a “fifty-mile'er” backpacking trip in August. Me and my 12-year old son Elliott have gone on the last two trips and this time our group consisted of four adult leaders and six scouts. That’s me third from right in the photo on the next page, and my son is in the orange shirt. We started near Wenatchee Ridge, Washington via the Top Lake Trail and ended at the Chatter Creek Trailhead.



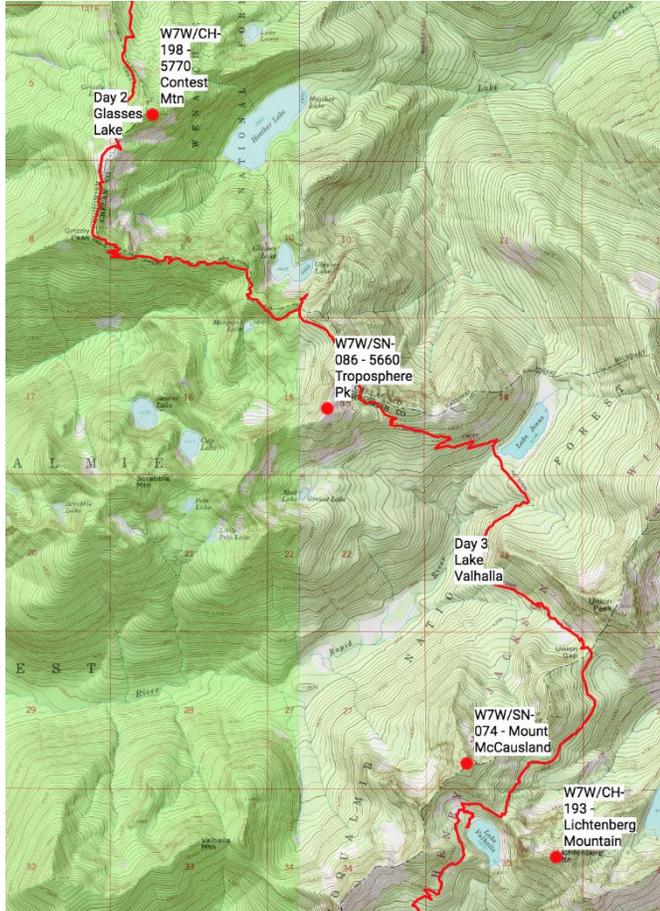
I planned to do one SOTA activation per day on the trip, and only missed one day. I took my Yaesu FT-1D H/T for 2m and for APRS spotting. My HF gear was an MTR-3B with a three-cell lithium pack and a 20/30-meter linked dipole. My total radio gear weight was right around two pounds. Total pack weight with food and water was 37 pounds.



The first day we hiked from the trailhead to Pear Lake and a couple of hours in I split off to summit Fall Mountain (W7W/CH-203). The hike up was fairly easy - there was a game trail most of the way up. The MTR worked great and I quickly made 14 contacts on 20 meters.

Finding the way down from the PCT to Glasses Lake was an adventure. There is a steep trail that isn't on any map. Luckily someone from our party waited for us and we were rewarded with a fantastic lake all to ourselves.

Climbing up to the PCT from Glasses Lake was tough! We took the PCT for a short while before setting our sights on Troposphere Peak. There was a faint trail that got us fairly close, and we scrambled up the last few hundred feet.



The little MTR did its work and I made 21 QSOs - it sure helps to get on the summits early! We climbed down and continued along the faint trail to rejoin the PCT.

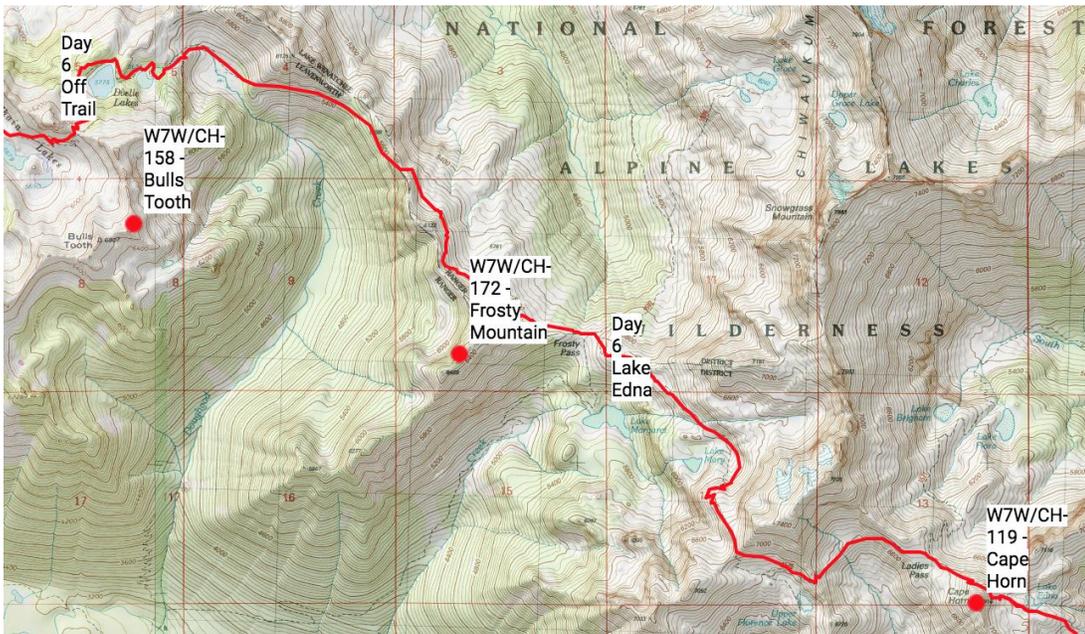
Several hours later we arrived at Lake Valhalla. I had planned to do Mt. McCausland (SN-074), but I admit I was tired and decided to have a rest.

On day 4 we continued on the PCT to Stevens Pass. This was a resupply point for us - one of the moms met us with a very nice lunch (fresh fruit!) and we picked up a resupply box that we had packed.

With our packs (and bellies) full, we started climbing up from Stevens Pass to our destination for the day – Josephine lake. Once on the ridge, I couldn't resist the call of Big Chief (W7W/CH-192) so this time we headed for the peak with my son Elliott and another scout. It was getting late in the day and we had a long way to go, so I quickly deployed the MTR and made 9 QSOs on 20m (no 2m this time). We headed back down to the PCT and continued on our way.

A little way before Josephine Lake, we left the PCT for Icicle Creek Trail. For the rest of the trip we saw almost no other people. It was an instant and very noticeable change from the PCT super-highway!





Day 6 I had planned to do Frosty Mountain but by mid-day it was clear that we still had a lot of miles (and elevation) to go, and so I decided to skip this activation and stay with the group.

Miles later, I had Cape Horn in my sights. We passed just a few hundred feet below the summit of Cape Horn to get to Lake Edna. The summit looked AWESOME!

Day 7 - the final day of our adventure. I got up extra early so I would have time to activate Cape Horn (W7W/CH-119). I started by hiking back up to the top of the ridge. Once I reached the ridge, there was a trail leading up a few hundred more feet. Where that trail ended the scramble began. It was quite an easy scramble as there was a giant crack you could climb up to the summit. Deploying the antenna was tricky, but I was able to strap my pole to a rock and use my trekking poles to secure the ends of the dipole. I got 15 QSOs on 20m. Then I got back to camp and quickly packed up.



The hike out was brutal. After we climbed Icicle Ridge we had to drop about 5000 vertical feet. We arrived at the trailhead in good time and our ride was there with fresh fruit and cold drinks! It was a fantastic trip, and I ended up with six activations, five of which were first activations. I also taught a scout Morse code and got him interested in ham radio and SOTA. Wins all around!

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