

# Pacific Northwest SOTA Newsletter

## September-October 2019

Photo by Rob-AE7AP of McCarty Hill & Fairview Mountain

**Upcoming Events** – Fall is shortly upon us – but these are some of the loveliest days to be out in the mountains...and here are some events - Participate!

**[Pacific Northwest 2m FM Distance Event](#)** – September 14, starting at 1800z. 146.58-fm and 146.56-fm. Exchange is Grid Square and SOTA Reference. See event details below.

**[ARRL September VHF Contest](#)** – September 14-15. All bands 50MHz and up - exchange is Grid Square. Best part is that it's during the Pac NW 2m FM Distance Event – do both!

**If you are in Portland on September 9<sup>th</sup>** – [Portland Amateur Radio Club will be hosting a presentation on SOTA, 7pm.](#)

**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 crazy mountain/radio adventures? If so, **"Tag Alongs Welcome!"** is what to watch for on the [SOTAWatch](#) alerts page. AND, if you would be glad to have another activator or two along, please consider putting **"Tag Alongs Welcome!"** in your alert comment with "meet at trailhead" or "rsvp by email" or whatever might work for you and the summit you have in mind. With a bit of cooperation three or even four activators can co-exist on a summit and each make four contacts for points.

**New URLs Supporting SOTA** – SOTA is developing a new, fully integrated website for all SOTA functions. IN THE MEANTIME, you can try out the new ones below with slightly different features than SOTAWatch2 or SOTADData, plus a 'third-party' map that has some FANTASTIC features:

<https://sotawatch.sota.org.uk/>

<https://newsotadata.sota.org.uk/>

<https://sotl.as/>

**Be Nice to Chasers – by Posting an ALERT!** Even for 2m FM. It could mean a Summit-to-Summit for you. There was a weekend a while back when a Pacific Northwest 6-point and 10-point summit were activated – without alerts – and SOTA Chasers would have liked to work them but didn't know. There are now enough SOTA-folks in the region that we listen out for EACH OTHER – although your fourth contact may come from some random ham passing by on the interstate, why not have it be a SOTA Chaser, fellow SOTA Activator, or SOTA Friend? In the region we are leaning towards alerts on 146.58-fm to avoid QRM on .52 and to allow a quiet channel for monitoring for SOTA activity. Try an alert starting on 146.58-fm and move to 146.52-fm to clean up afterwards.

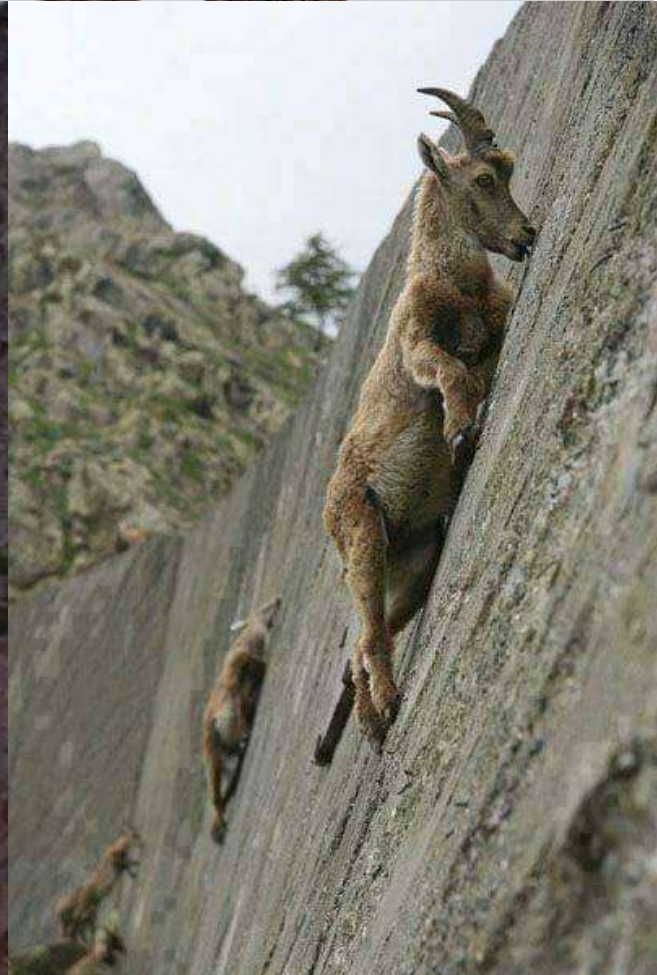
**Mountain Safety Kit** – Everyone needs to be prepared when hiking, Steve-WGØAT has his ten plus essentials described in his article below. However, this [Mountain Safety Kit](#) could be an essential part of every SOTA Activator's pack.

My Survival Prep for Hiking – Chris-N1CLC provides a real-life example of [using his ten essentials](#).

**What Do You Want to Carry?** – Check out the weights of various rig, battery and antenna combinations:

Rig	Accessories	Battery	Antenna	Kg	Lbs
FT-857	mic	12AH LiFePO4	20m vertical dipole	4.2	9.3
FT-817	mic & paddle	3AH LiFePO4	40,30,20m EFHW	2.0	4.4
MTR-3b	paddle	8xLi AAA cells	30,20,17m EFHW	0.4	0.9
KX3	mic & paddle	3AH LiFePO4	28' wire x2	1.8	4.0

**Mountain Goats – In the Wild** – Aren't we just like this when we climb? Be safe out there!



**MORE ABOUT the Pacific Northwest 2m FM Distance Event – Ryan-W7RMR** noticed that last month a group in Spain did a similar event and, despite some wet and miserable weather, they had numerous long-distance contacts including a few S2S in excess of 150 miles and at least one unconfirmed contact of 280 miles.

September 14, starting at 1800z. The goal is to get as many LONG DISTANCE S2S contacts. We are timing this to coincide with the ARRL September VHF contest, which starts at 1800 UTC, or 11am PDT. Exchange is Grid Square and SOTA Reference. When you post your alerts, make sure and mention the PacNW 2m FM Distance S2S in the comments.

We'll plan on starting around the same time, that way if anybody has trouble getting enough S2S contacts to make the activation count, there will still be people around you can make contact with. Plan on 2m FM, 146.58 for the primary frequency with a backup frequency of 146.56. 146.52 will be CRAZY with VHF Contest traffic and weak signals may be buried – but you should be able to work at least a few testers on 146.52-fm – try that later for fun.

Ryan thinks we can beat 150 miles with a little effort. In order to help with that, try to post where you'll be and what equipment you'll be using, I will add it to the map to help others visualize and plan. Try to keep the equipment simple, low watts and good antennas, we'll rely on line of sight vs. just blasting out power. Ryan has put together a map with [participant summits – check it out here](#).

**ON ANTENNAS for the Distance Event** – an improved antenna contributes to both **RECEIVE** and transmit. [Here is an article on a super easy 2m yagi](#) – it would take a few minutes to put one together and you'd get about 4x improvement in apparent power. Equivalent to 20W on transmit from a 5W HT, **but more important, 4x better on receive**. Of course, you need to point it and hold it vertically polarized. Many folks already have a yagi – [Arrow Antennas](#) are practically a SOTA standard. Bring them to this 2m FM Distance Event!

**SOTA Overview** – Starts on the linked page 8, a nice overview of SOTA by Paula-K9IR. Share with people that wonder what you are doing out in the mountains: <https://cwops.org/wp-content/uploads/2019/03/solid-copy-2019.03.1.pdf>.

**Lego SOTA** – Ruth-WA4VT did ham radio a great favor by building Lego to represent the many facets of our hobby – [check out her video](#) and wait until the end for the best part...

**VHF/UHF Handheld Performance Comparison by Razvan-YO9IRF** – Want to understand why your buddy can hear and work folks on a summit but you can't? Need to hear Chasers when you are on a summit busy with RF? This may help!

I was looking for a way to compare the performance of VHF/UHF handhelds and find the key indicator that would be relevant for summits that have strong broadcast interference. I realized I don't need to reinvent the wheel and test dozens of radios, the data is already out there: QST has tested most of the popular handhelds, and the measurement for 3rd-Order Dynamic Range (10MHz) is exactly what I need.

So, being too lazy to go outside one morning, I went to my ARRL account, downloaded all QST tests of handhelds and centralized performance measurements in one easy to use table. It's sorted by "3rd DR wide 2m (dB)" by default but you can sort by other criteria if you want, or just search for your favorite model.

<https://qrpblog.com/vhf-uhf-handheld-performance-comparison/>



"What's in your Pack?" is something folks have regularly asked Steve-wGØAT. So here's what's he brings, excluding what he's wearing, cell phone and FT2d Handie. It all comes to about 12 pounds of pack weight. This is his "Every Day Carry on the Trail" for SOTAteering, with each item described below:



#1 Vintage US Army Drill Instructor wool campaign hat	#15 15' Telescopic mast collapses to 15"
#2 Wool MG ski beanie, + backup fleece beanie	#16 MTR2 5W 30m/20m transceiver, 2-band EFHW, bat. & earbuds
#3 Ultralight (6oz) wind/rain pullover	#17 Hand knife 5" razor sharp carbon steel blade (full tang!)
#4 Thermos (hot tea)	#18 Oops skipped #18
#5 2-man or 1-man +1-goat "Bothy Bag" survival shelter	#19 Camera accessories - tripod, Bluetooth shutter release
#6 MacGyver Kit (will breakdown later) zip ties, wire, tape, etc.	#20 First Aid Kit - plus office supplies, water purification tabs etc.
#7 Survival heat reflective bivy	#21 Radio accessories, extra paddle, more wire
#8 Compass (map not shown - goat ate it)	#22 Fingerless gloves (saves hands from cuts when I trip and fall)
#9 Backup HT	#23 Quick access Sit Pad for rest stops
#10 Wind/rain overpants (coated nylon)	#24 Medium weigh gloves
#11 Down jacket	#25 Heavy weight warmer gloves
#12 Mountain Money \$\$ (aka TP)	#26 Headlamp (w/extra batteries)
#13 Water bottle (more not shown)	#27 Folding sun hat (can wear under ski beanie like a visor)
#14 30' of fire starter 550 Paracord (only takes a spark to ignite)	#28 Trekking poles wrapped with electrician and duct tape

Not Shown: Even more water bottles depending on the hike and weather, lots of trail snacks, plus lunch – usually a summit sandwich!



A collection of various electronic components and tools, including a digital multimeter, a soldering iron, a USB drive, a pencil, a notepad, a paperclip, a coiled orange cable, a green ring, a blue plastic bag, a bundle of blue jumpers, a pair of blue earbuds, a black cable with alligator clips, a red tape dispenser, and a pink bag, all laid out on a wooden surface.

And all this gear might be for someone else – Steve has given a hat, gloves and jacket and a bivy to a young woman on the trail who was suffering from hypothermia while she was waiting for Search and Rescue to reach her. Later Steve received his gear back with a thank you note, and a REI gift card for \$20!

A screenshot of an iPhone map application showing a dense distribution of red location pins. The map is titled "Using an Iphone for Offline SOTA Peak GPS and Navigation". The pins are concentrated in a central area, with labels for "Laguna", "Bend", and "Boulder" visible. The map interface includes a search bar at the top, a compass and location icon at the bottom left, and a scale bar indicating 0.1 mi. The map is overlaid with a grid of latitude and longitude lines.



**Rob-AE7AP is Montana's First Mountain Goat!** – I'll let Rob tell the tale of his achievement...



I discovered SOTA in 2014 and have been having great fun with it ever since. One of the best parts is the people that I have met along the way, both on the air and in person. This includes new radio-friends and also random encounters with interesting folks out in the woods. It has been a treat to see so many unique and remote areas that I would otherwise have no excuse to visit. Each trip seems to bring something new and interesting. This weekend it was "The Monument Plant" which blooms only once in its 20-80 year life. Past outings have included all manner of curious weather events, exciting wildlife encounters, beautiful scenery, and fascinating geologic features. We have also found that SOTA fits well into a vacation – whether as a primary element, interlude/activity for a family visit, or

even just to break up a long drive. Barb-AE7AQ has been with me on every single outing (except for two "UTC-Rollover" winter activations with Bill-N7MSI) and it is she that makes it all truly enjoyable. Thank you everyone for the kind words – I look forward to working you on the next summit!

Associations that I activated on the way to Mountain Goat included W7M, W7I, W7U, W7N, W7Y, and W0C for a total of 212 summits. Featured on the newsletter banner are two of my favorite summits: McCarty Hill (W7M/CL-157) and Fairview Mountain (W7M/CL-041). They are also, curiously, the first Montana mountains that I "climbed" when working on a seismograph crew back in 1982 (long before SOTA).

Congratulations and "Meehh" to Rob!

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*Your ideas for this newsletter are welcome – many contribute including Ryan-W7RMR, Razvan-YO9IRF, Ruth-WA4VT, Paula-K9IR, Troy-KF7SEY, Rob-AE7AP and Steve-WGØAT for contributions to this newsletter...I appreciate every word. Share the newsletter with others or subscribe or unsubscribe by email to [climb2ski@gmail.com](mailto:climb2ski@gmail.com). 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](http://www.pnwsota.org/content/pacific-northwest-sota-newsletters).*