Pacific Northwest SOTA Newsletter

Upcoming Events –

ARRL June VHF Contest, June 13-14, 2026. Two-meter FM can work of course (146.52 & 146.58) and be prepared to give out contacts on 70cm as well (446.00). The exchange is four-digit grid square but hopefully some six-digit exchanges also. If you have a SSB rig and a horizontal antenna on 6m and up, you'll be popular: https://www.arrl.org/june-vhf.

CQ Worldwide VHF Contest, July 4-5, 2026. Perfect for SOTA – only 6m and 2m, plus the Hilltopper category is practically perfect for SOTA Activators: https://cqww-vhf.com/.

ARRL 222-and Up Contest, August 1-2, 2026. You should be able to work some 70cm on FM (446.00) and CW / SSB (432.10). And The Best Part…exchange is six-digit grid square! https://www.arrl.org/222-mhz-and-up-distance-contest.

W7O SOTA Campout, July 9-13, 2026 near Bend, Oregon.
https://reflector.sota.org.uk/t/2026-fifth-annual-w7o-pnw-sota-campout-is-here/39946.

W7W SOTA Campout, August 14-1,7 2026, near Republic, Washington.
https://reflector.sota.org.uk/t/w7w-2026-sota-campout/39587.

W6SOTA SOTAFest, Aug 7-9 2026, near Pine Mountain Club, California.
https://w6sota.org/web/2026/01/28/2026-summer-socal-sotafest/.

Glacier-Waterton Hamfest, July 17-19, 2026 near East Essex, Montana. Rob-AE7AP (W7M Association Manager) is planning to arrive early and do activations on July 16 and 17. https://www.gwhamfest.org/

2026 Queens of the Mountains, June 13-14, 2026 – an invitation to YLs from around the world to activate summits.
https://reflector.sota.org.uk/t/2026-queens-of-the-mountains/40524.

SeaPac Hamfest, June 5-7 2026, Seaside, Oregon – SOTA Gathering 5pm Friday, Pizza Harbor.

The Surprising Flaws in 18650 Lithium-Ion Batteries
https://www.youtube.com/watch?v=-Y23nfAOiXQ

Investment companies block access to thousands of acres in WA • Washington State Standard
https://washingtonstatestandard.com/2026/03/09/investment-companies-block-access-to-tens-of-thousands-of-acres-in-wahkiakum-pacific-counties/

VHF Propagation: https://www.trpub.net/assets/applets/VHF-UHF_DX_Book.pdf
https://www.youtube.com/watch?v=DTXJ3bS2UcE

The 2m/70cm CW/SSB Challenge – 2026 Q1 Insights

- **What exactly is the 2026 Challenge?** Summary here: https://w6sota.org/web/2026/01/01/2026-sota-challenge/
- **Antennas – Vertical or horizontal polarization?** For most SOTA ops, it seems gain verticals are more common. However, during a contest, horizontal is standard, and you might fare better with flexible polarization. Try peaking up signals by changing polarization and direction. e.g. if you are using a 1/2 wave Long Ranger, turn the radio sideways to peak up stations with horizontal polarization.
- **Getting six-digit grid without using QRZ?** Giving out your own six-digit grid square in a CQ may help random chasers know that we need more than the four digits. You may not always get six – be gracious. If you know the six-digit grid of the station you are working, asking, "Are you still in CN86 alpha bravo?" could work.
- **But can I just use QRZ for the person's grid square?** Confirm during the contact they are at their QRZ QTH (they may be traveling) and then you can.
- **Exchanging SOTA Summit Reference?** Most non-SOTA ops won't use the Ref – so best to provide on request.
- **What frequencies to use?** If not busy, 144.200 and 432.10 are the weak-signal calling freqs and are used for both SSB and CW. You can spot up in 10kHz steps. During a contest, it's not cool to chat – be succinct.
- **Dial Frequency vs. Actual?** We are accustomed with our HF radios that 14.062 MHz means exactly that – no more or less. However, for V/U, your rig may display 144.200.14 MHz when you are dead on the calling freq. Check with other ops to see where you should land so other folks can copy you clearly.
- **Join the PNWVHF Society** and let people know on their reflector that you will be doing 2m and 70cm weak signal work from a summit.

Welcome to the Updated pnwsota.org!
Our regional trip report blog pnwsota.org has been updated with enhanced security. Existing users **will** need to reset passwords, as passwords did not migrate to the new site. And because our old site was running without HTTPS for *so* long, it is strongly encouraged that you **do not** recycle your previous password. Please pick something fresh and new! Head on over to the Password Reset page to get started (or click *Log In* and then *Reset your password*) Some of our dust is still settling, but we invite you to poke around and explore!
If you find any egregious problems, please reach out to Tyler-ND7Y via pnwsota@nd7y.net.

Things to Do – Practice the "SOTA Anthem" to prepare for the sing-along at the next SOTA Campout!

in Honor of My Friend Vick Applegate – K7VK (sk)
On December 20, 2025 - Montana lost one of her sons. Our friend, Vick Applegate (K7VK) is no longer with us. I, along hundreds of others will sorely miss him. I created a video and photo montage of the activations that I shared with Vick. The link below is public. If you enjoy the video and would like to share it with others, please feel free to do so download the video for your own use if you like. 73 Vick - We miss you already. The Montana mountains will never be the same.
de Dennis-KR7Q

The Best Ever UTC Rollover! by Bill-N7MSI – article and photos courtesy of **Capital City Amateur Radio Club, Helena**, Montana**.**

Never before have Helena area hams coordinated simultaneous SOTA activations for New Year's Eve! But this year four teams climbed peaks that surround Helena Valley to activate SOTA peaks for 2025 and 2026, all within the same hour of 4:30 - 5:30 local time.

On Strawberry Butte, W7M/HB-128: Paul Brumfield KK7SDH, His wife Becca, and dog Penny stayed overnight in the cabin. On Shingle Butte, W7M/HB-128: Al Le Vie KH7AL, Brett Penner N7SKI Nolan Taylor K0HAA and his son Dexter. On South Helena Ridge (Peak 5940), W7M/CL-161: Rob Kingery AE7AP Barb Kingery AE7AQ. On South Scratchgravel Hills, W7M/CL-182: Bill McGuire N7MSI and Devin Felix KM7AXU. << Photo below by Devin.

Devin-KM7AXU and I, N7MSI, headed up the trail at about 1445 hours local time, or 2145 UTC. This was Devin's first SOTA activation, so he was facing not only a steep trail but also a steep learning curve. I was concerned about the young man stepping out and leaving this old guy in the dust, but as my luck would have it, Devin gave blood the day before so he was a little low on oil which slowed him down to my pace. We reached the summit by 2300Z. A couple of other activators had already made it to their summits for this epic four-summit UTC Rollover.

As luck would have it, the summit had a picnic table on top so setup was convenient and fast. I had Rob-AE7AP on summit W7M/CL-161 in my log in just a couple of minutes of our setup. From then on Devin and I had a constant flow of contacts coming in on the radio. Devin set up his telescoping pole and J-pole antenna in between contacts. It was getting close to our Zulu rollover hour and cooling off fast. I busted out the hot chicken broth to help us power on to the top of the hour making contacts. Bob-N7AGP was in the log all the way from Great Falls area. We were cold but pumped. We got all the Summit-to-Summit contacts and our friends in the valley in our logs. The clock rolled over and it was UTC HAPPY NEW YEAR! The radio action started all over again. BAM, Marla-KM7LIB was on the trigger and first in the log for 2026. This time we had Devin's J-Pole antenna working for us and we got Bob-N7AGP right away and then Stacy-KK7CJV and Eric-KE7NLU in the log all the way from Belgrade MT. We also got K7MT on the Belmont Ski hill in the log. All our other friends in the Helena valley were in the log as were all three of the other summits and their activators. The energy was high and the chasers were motivated. By 0026Z I had Charlie-W7CEG as my last entry and we were packing up and hitting the trail.

<< Rob- AE7AP

We were so adrenalized from our activation we chatted all the way down the hill about the experience and made the trailhead in what seemed like minutes. On the trail down someone had put Christmas lights on a tree in somewhat of a star shape – just another surprise during this epic event. Thank you to all the chasers and activators. It just doesn't happen without you. 73, Bill-N7MSI

Tuna Tin II – Vintage Rigs by Josh-WU7H

The 'Tuna Tin II' is a QRP classic that was very popular in the mid-to-late '70's. Plans for the TTII were published in the May 1976 issue of QST by Doug Demaw, W1CER (later W1FB). It was designed to be a simple build using parts easily sourced from Radio Shack, and of course using an empty tuna tin for the enclosure. For many, the TTII was their introduction to building electronics, and operating QRP. The TTII faded from popularity as the years rolled on and new sparkly kits arrived on the QRP scene, but sometime in the late 90's Ed Hare (W1RFI) found the original TTII (now referred to as 'The Ancient Sacred Relic') at a flea market in Mass. This sparked a Tuna Tin revival, which was furthered by the NorCal QRP club releasing a very popular TTII kit sometime around 2000.

2026 marks the 50th anniversary of the TTII. The original TTII is now in the care of Rex Harper, W1REX. Rex is planning to visit Washington and hopes to connect with QRP enthusiasts of the PNW. Anyone who is interested in meeting Rex and seeing 'The Ancient Sacred Relic' are invited to Lake Sammamish State Park, Sammamish, WA on Saturday, April 4th. Rumor has it that if you bring along your own 40m homebrew or kit radio and a dummy load, you can have a QSO with the 'Ancient Sacred Relic'! If you would like to try your hand at building a TTII, here is a link to the original QST article: https://www.arrl.org/files/file/Technology/tis/info/pdf/7605014.pdf. Rex also has TTII kits available on his website, https://qrpme.com/.

Why We SOTA - WG0AT Knows

https://www.youtube.com/watch?v=yStnZDYtPzc

SOTA vs POTA: An Analytic Look at Growth – by Guy Hamblen, N7UN

This study presents a comparative analysis of QSO growth and distribution by mode between SOTA and POTA since 2017, and examines the strengths and weaknesses of both award programs.

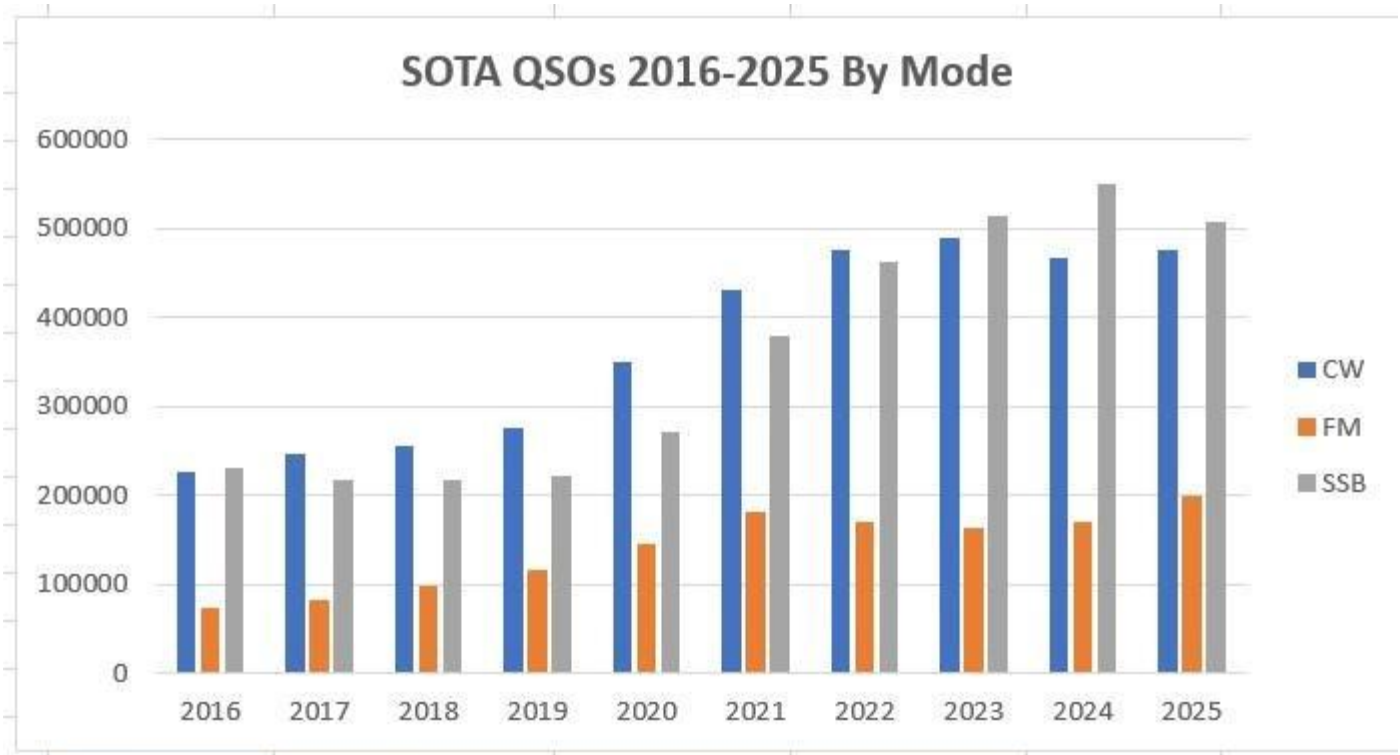
Introduction

SOTA began in 2002 in the UK and has grown significantly over the past 24 years. NPOTA began in 2016, with the ARRL partnering with the National Park Service (NPS) to celebrate their 100th anniversary. NPOTA, as it was called, was limited to the 460+ NPS "entities". Even then, it was surprisingly popular with most US-based hams.

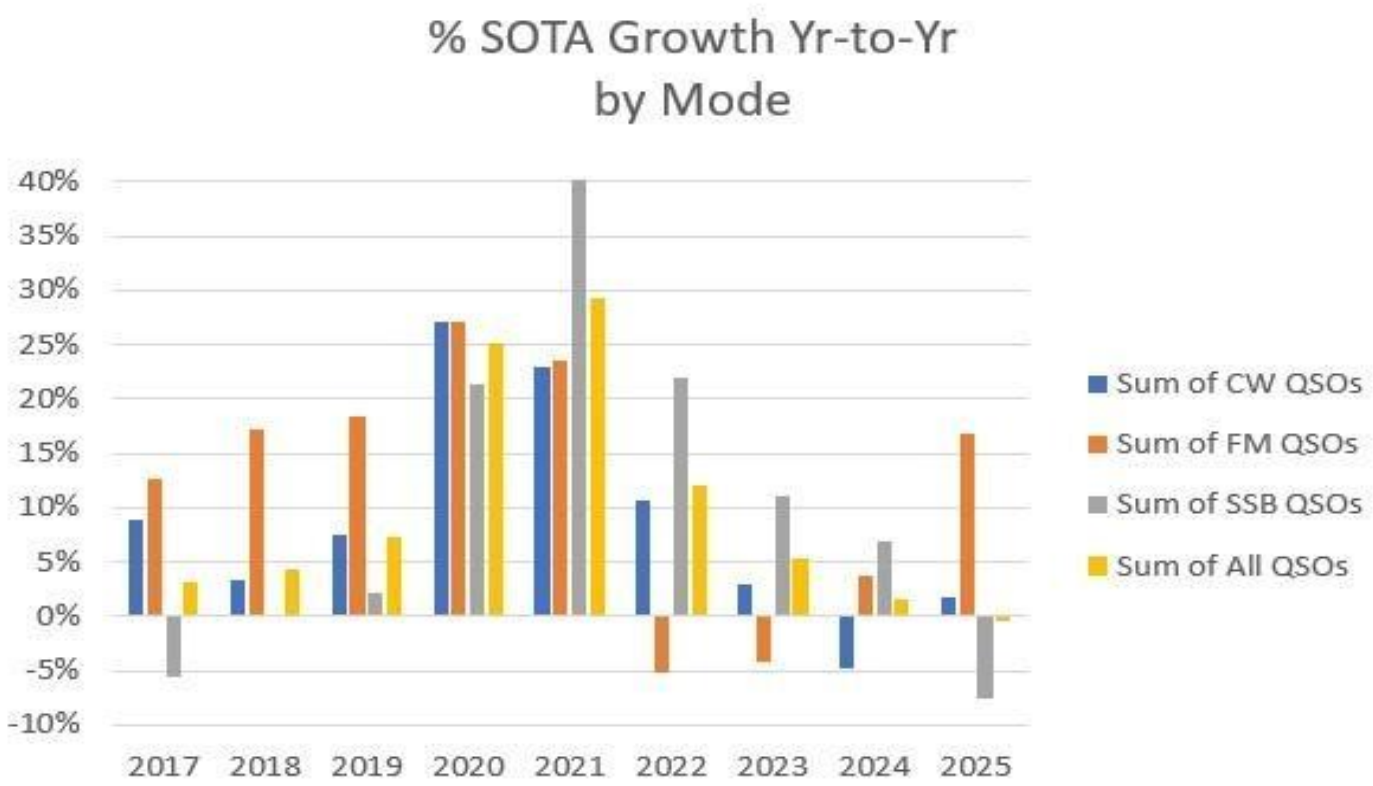
In 2017, after the one-year NPOTA fun-a-rama, a group of Midwest hams undertook to build and extend the POTA program. Not surprisingly, the effort had a set of starts and stops, but established a web presence and undertook the qualification of "parks" by states. The program has grown significantly and now includes many countries worldwide. There has always been considerable anecdotal web discussion that SOTA is for CW operators, whereas POTA is for data (primarily FT8) and SSB operators. Fortunately, I was able to obtain POTA and SOTA data to analyze, hopefully to shed more light on the current hypothesis of QSO mode differences between each program.

SOTA Analysis

SOTA data for the period 2017 through 2025 was obtained and dropped into Excel for analysis. We can see SOTA is indeed dominated by CW and SSB, almost equally split between the two modes, 42% CW vs. 40.7% for SSB. Not surprisingly, FM accounted for nearly 16%, primarily due to 2m activity. Interestingly, Data only accounted for 1.3% of the QSOS. Digital Voice (DV), AM, and Other (Satellite) QSO totals were relatively insignificant and not included in this analysis.



QSOs by Mode	CW	FM	SSB	Total QSOs
	3,694,689	1,402,020	3,575,891	8,672,600
	42.6%	16.2%	41.2%	



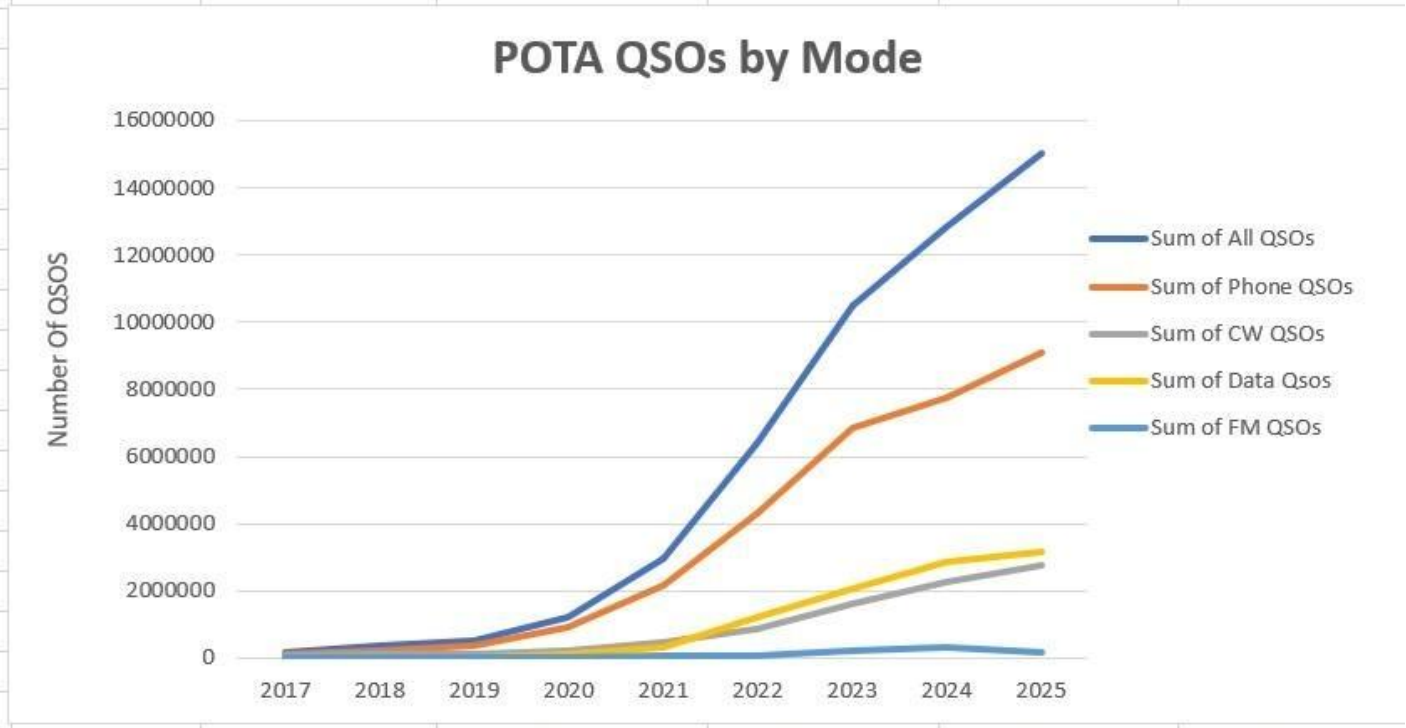
We also get a sense of growth over the 2017-2025 period with CW and SSB dominating but the other modes have minimal or no growth.

SOTA attracts a different group within the larger ham community. Most SOTA activators are ardent hikers, often with mountaineering experience, and generally not troubled by known-trail hikes or even unknown bushwhacks to a mountain peak. SOTA Chasers are often SOTA Activators. There is a strong motivation for S2S (Summit-to-Summit) QSOs within the program.

SOTA Activator rules are rigorous in comparison to POTA rules: 1) An Activation must be within 25m elevation of the summit highpoint, 2) An Activation must be completely independent of a vehicle (if the summit is a drive-up), 3) An Activator only scores points for a specific summit once per calendar year whereas a Chaser scores points for a summit once per UTC day, 4) A SOTA Activation is very weather dependent.

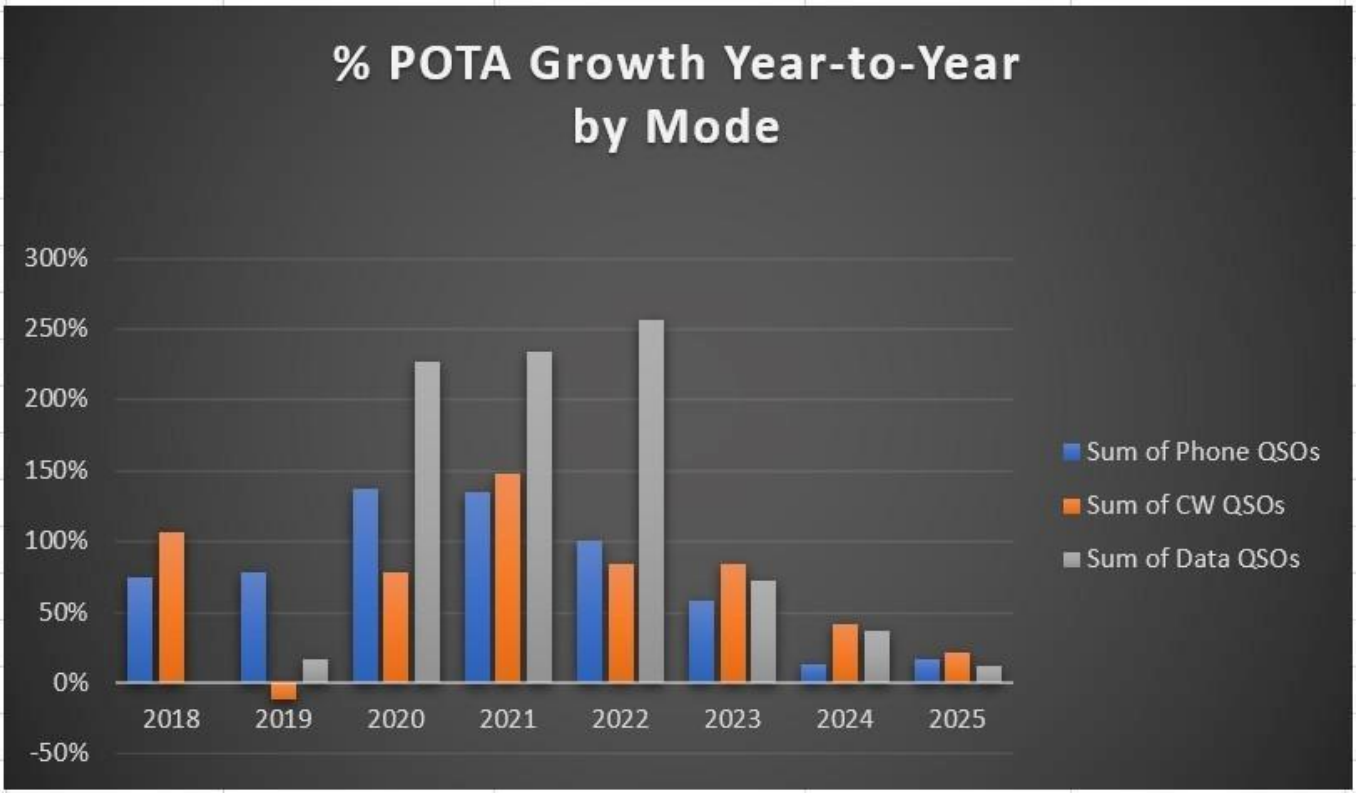
The awarded points for both Activators and Chasers are relatively symmetric, i.e. Activators get the same points as does a Chaser, on a scale of 1-10 points for a summit. Although Activators can get a “winter” bonus of 3 additional points for an Activation during the winter season. Winter bonus points are not significant compared to yearly totals, however.

POTA Analysis



	Total All QSOs	Total SSB QSOs	Total Data QSOs	Total CW QSOs	Total FM QSOs
All QSOs	49,950,000	31,737,000	8,446,000	9,767,000	895,900
(2016-2025)		63.5%	16.9%	19.6%	1.8%

The POTA program began in 2017. Note the high percentage of SSB and Data QSOs relative to the total QSOs. POTA is experiencing, especially in the last 3 or 4 years, a rapid growth. However, these reported QSO numbers are "skewed" due to a specific POTA Activation rule, the "N-fer" rule, which will be discussed shortly.



By Mode, SOTA is equal in SSB and CW use with a large number of mostly 2m FM QSOs. POTA, on the other hand, is dominated by SSB and nearly equal FT8 and CW QSOs.

POTA continues to grow in total QSO numbers by Mode. A large part of that growth has to do with specific POTA rules: 1) A POTA "entity" (a Park, National Forest, BLM site, a Historic Trail like the Lewis & Clark or Oregon Trail, a State Park, but no county or city parks) can be "activated" once in a UTC-day. The POTA program encourages multiple activations of the same entity, 2) An Activator can use a personal vehicle for the activation. This generally gets the Activator "out of the weather" and also means you can use larger batteries and therefore higher radio output power. This also encourages longer Activations. The POTA Activator is generally not weight-constrained in comparison to the SOTA operator.

POTA operators are the "average ham" within the larger ham community. One only has to be comfortable in a National or State Park. Picnic table, RV or camper operations are very popular. The geographic size of many POTA entities is generally huge (think a NP or NF) and therefore means many choices for an Activation location.

When the POTA program began in early 2017, they adopted a policy of multiple simultaneous activations, the "N-fer" accommodation. Many NPs, NFs, etc. have other "entities" within them like National Trails (think the Lewis & Clark Trail, the Oregon Trail, or the Pacific Crest Trail). If a POTA Activator operates within 100 ft of the Trail within the Park, for instance, they get a "2-fer" which is a 2x amplification of their POTA points. The same is true for the POTA Hunter. Since most Activators/Hunters "want" the extra points, there's a "skewed" tendency to maximize the "N-fer" amplification by Activators, which in turn skews the reported number of QSOs. So, this partially accounts for the large QSO numbers. The POTA IT team is "scrubbing" the data to understand the actual number of QSOs in the database. For example, in the Columbia River Gorge, there are at least three 5-fers, a lot of 4-fers, and almost every State Park is a 3-fer.

Conclusions
Without a doubt, POTA is rapidly growing in popularity, mostly, in my opinion, due to program structure and policies. Vehicle-based operation, multiple UTC-day operations, and limited restrictions of operating location within the entity. Simply, it's easy to operate POTA, and the Activator is not weight-constrained. Consequently, a big battery (or shore power) results in more RF power and a bigger signal which makes it easier for Hunters.
SOTA, in comparison, is more limiting. A SOTA activator, generally, is not representative of the overall ham community and that may be a factor in the flat growth of the program.

Here are two other views of Parks on the Air – one from just over a year ago that provides another comparison to SOTA and one published last quarter focusing on club activity. As in the analysis piece above, these both point out the bottom line – getting more hams to be more active is beneficial to our radio hobby – check them out.
Parks on the Air: Members Go Portable in 2025 – by Sean-KK7OVF via the sPARC Q4 2025 Newsletter (p 6)
Parks on the Air – The Other Portable RadioSport – by Etienne-K7ATN via the PNWSOTA Q4 2024 Newsletter (p 3)

DX Engineering Introduces a High-Performance Antenna Encabulator
https://www.youtube.com/watch?v=8b1JOgI_p3o

The RetroRig - by N6ARA Electronics
https://www.youtube.com/watch?v=urp9Td6i8Q0

Introducing the Ultimate in VFO Technology: The MEGA-Knob!
https://www.youtube.com/watch?v=mddJY-WGJrY

On March 5, 1919, the British tabloid The Mirror published this comic strip by W.K. Haselden titled, "The Pocket Telephone: When Will It Ring?"

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