

Ozark QRP Banner



The Official Newsletter of the Four State QRP Group

WQ5RP

May 2026 Edition

In This Edition: ATU for the IC-705, LOG Part 2, POTA on the KATY Trail, ADØYM-60 Meters, Rory's Murania Build, Bicycle QRP Mobile, OzarkCon 2026, PoLo Revisited, Cooling the KX2

State QSO Parties - For those interested in State & Province QSO parties here is a link to the list:
<https://qsoparty.eqth.net/index.html>

From Tony, KTØAA - Check this out, **free** magazine, see page #7 to sign up: April edition of SWR magazine: <https://online.fliphtml5.com/kqkyd/SWR-April-2026-English/#p=1>

Save the Date: Brutus Bash will be Sept 11th and 12th, 2027. Hopefully you can attend.



A Bit of History:

May 23, 1967 - Powerful solar storm causes widespread radio disruptions.

June 23, 1891 - Tesla receives patent for tuned radio oscillator.

Dayton Hamvention and Four Days in May Events will be on May 14th thru the 17th. Hope to see many Four State QRP Members there.

J-38 Keys - Telegraph Keys used during WW II by the US Army Signal Corps



If you already know the basics of J-38 keys and want to skip the intro to get directly into the heavy "rivet counting" click here for <https://k6ix.net/J-38/J38Page2.html>

During the years between WW I and the Korean War the US Army Signal Corps designated many of their telegraph (or Morse code) keys with a "J" prefix followed by a number. The known numbers range from J-1 to J-51. All of these keys are considered collectible, and many of the WW II models are still in everyday use by Amateur Radio (Ham) Operators. One of the most popular of the "J" keys is the J-38. <https://k6ix.net/J38Keys.html>

Antenna Tuning Unit for the IC-705

A friend of mine bought a **Windcamp carrying bag** for the **IC-705**.

Since the IC-705 does not have an internal antenna tuner, my friend wanted a cheap external tuner. I built for him the well known **ATU-100** from a Chinese kit, and made it to fit in one of the compartments of the bag. I adjusted the EEPROM settings for QRP use.

We determined the available space to be roughly 7" x 4.3" x 2", so I built a suitable cabinet from pieces of PCB.

An extra requirement was that all connections and controls had to be on the same side so the tuner could be operated whilst sitting in the bag. But it had to have its' own power supply, so in case the tuner was taken from the bag, it could be positioned at the feed point of the antenna, if so required.

I ordered an ATU-100 kit and two square flange BNC connectors on Ali Express, for a total cost of only **32\$**. The rest of the stuff came from my junkbox. I can't think of a cheaper automatic tuner solution!

After assembling the kit, it was time to put it in a box. I started by mounting all connections and controls on the front panel, by using as few screws as possible.



Then came the bottom, back, and two lower side panels, and I mounted the tuner inside like this:



My friend did not want an internal battery, but there is enough space to put one inside, to the right of the tuner board.

A thin aluminium plate (10 x 28.5 cm) was bent into a U-shape to make a cover, it is fixed with 4 Parker screws to the two lower side plates. This is the finished tuner, with labels.



And here the tuner is in use in the Windcamp bag, with the IC-705 in the front, the ATU-100 tuner in the middle (a little hidden), and a 12V-7Ah SLAB in the back. The tuner battery is a 3x18650/2200mAh Li-Ion pack, sitting just the left of the tuner cabinet.



A more detailed description with more pictures can be found on my blog:

<https://on7dq.blogspot.com/2025/11/building-another-atu-100.html>

Happy tinkering !

73 de Luc - ON7DQ/KFØCR

My experience with the LOG-Part 2

(by Herbert Ullmann, AF4JF)

LOG stands for "Loop On the Ground" - a receive only antenna made from a small loop of wire and an isolation transformer. I have built one based on information from [this web site](https://www.kk5jy.net/LoG):

<https://www.kk5jy.net/LoG>

I published my first experiences in the January issue of *PW*. However, I continued experimenting with the antenna and used it in additional HF contests as well as for everyday operation.

Here is what I found:

First: testing a larger loop

I tested a larger loop with a total circumference of **40 meters**, slightly shorter than one wavelength for the CW portion of the 40-meter band.

- Received signals were stronger compared to the shorter LOG. However, on higher bands some stations were significantly stronger on the LOG than on my EFHW, while others were much weaker. I assume the radiation pattern changes when the antenna is used on higher bands. The optimal length of the LOG seems to be slightly shorter than one wavelength of the band in use.
- The 40-meter LOG turned out to be very good on **160 meters**. I used it during the **CQ WW DX 160 contest**, listening almost exclusively on the LOG while transmitting on a 140-ft EFHW. I worked **12 DXCC entities**. One of them (KH6AQ, Hawaii) was weak but workable on the LOG, yet completely lost in the noise when I tried the EFHW. Interestingly, at the time the LOG was buried under about **10 inches of dry snow**.

Second: elevating the LOG

Before the snow arrived, I tried elevating the LOG about **1 inch above the ground**.

- Signals from the LOG became stronger, nearly identical to those on my EFHW. The noise floor increased slightly as well, but not nearly as much as the signals.
- It is generally difficult to compare two antennas when you can use only one at a time. Propagation may change between tests, and the same applies to evaluating noise levels. However, Mark, **AI5G**, suggested using **WSPR statistics** for future evaluations. I plan to do that for my next antenna test.

- This setup turned out to be impractical for everyday use—even my dog kept stumbling over the wires one inch above the ground, not to mention myself.

Third: optimizing the impedance transformer

- It turned out that the optimal transformer ratio depends on the band, the length of the LOG, and probably other factors such as soil quality.
- For my **40-meter LOG on the ground**, used on **160 meters**, the optimal ratio was **2:5**.
- For the same 40-meter LOG elevated 1 inch above ground and used on **160 meters**, the optimal ratio changed to **1.5:5**.
- For the same elevated 40-meter LOG used on **40 meters**, the optimal ratio was **2:7**.

Conclusions

All things considered, this antenna is very useful to have. It is **not a miracle antenna**, but it makes operating easier in certain situations. I will install the 40-meter loop permanently in my backyard, directly on the ground.

There are other antennas I would like to test next—**vertical loops** will be first.

Stay tuned...

Bicycle Mobile - QRP CW?

It is really not that hard!

By: Wes Spence, AC5K



One of the fun things about being a QRPer is that we are not limited by traditions, and we are a culture that values ideas that are 'out there'.

Some year ago, when I still lived in Texas, I set up a QRP station on one of my bicycles and routinely operated CW mobile from the bike. I emphasize routinely, because this was not an experiment or just something I tried to see if it could be done but something I did quite often. The bicycle station was set up in a way that I could install the radio and be on the air within about ten minutes.

For a quick description of my set up, I used a Small Wonder Labs DSW-20 transceiver, a Ham Stick antenna and had keyer paddles mounted near the handlebar grip. When the DSW-20

was first released, I instantly knew it was perfect for bike/m. The frequency selection encoder clicked like an old TV type channel selector, which made it very stable for mobile use. I built the DSW-20 into a box that was deep but not very wide so the controls would be easily accessible with the radio sitting in the handlebar bag:

The way I mounted the paddles allowed for me to stabilize my hand on the handlebar grip which somewhat mitigated sending errors while riding.

An early challenge to success was that the DSW-20, while promoted as a two Watt radio, only had about one Watt out with 12 Volts. I solved this by adding a solar panel that was used on a military Humvee, probably as a trickle charger. I believe Humvees use 24 Volts, but if you cut the black box off the solar panel, the output voltage is correct to boost the voltage to a 12 volt rechargeable battery enough to achieve the full two Watts. Another issue I initially ran in to was a ground loop, but that was easily solved.

This bicycle station worked about as well as most 2 Watts QRP stations. I worked all over the US, and even stations in Japan and Latvia while enjoying a nice bicycle ride. Once, while not getting any answers to my CQs, I checked in to the CW County Hunters Net as a mobile station and ran my fairly rare county from the bike. I should mention that for safety, any person attempting to do CW while in motion should be very good at "head copying" CW. Otherwise, it would be dangerous if the operator was struggling to understand the CW being received and rode off a cliff or something!

The future: With more modern technology, doing bicycle mobile CW should be even simpler. One weakness in my old set up was that I had to use headphones, which for legality had me doing most of my mobile operating off road. Now, with Blue Tooth and bone conduction headphones, it should be easy to just route the radio audio to those type headphones that don't cover the ears and keep out of trouble. Newer radios should also offer more options and bands. Good luck, have fun, and be safe!



ADØYM - Working the New 60 Meter Frequency Allocation on the First Day - 13 FEB 2026

A change in frequency allocation on the 60 meter band provided an opportunity to create an informal group event to celebrate the addition of some radio spectra that was power limited enough to be of interest to the QRP community. This "event" was suggested by Jim Smith (KKØU) which had the goal to work as many St Louis QRP Society (SLQS) member stations on the new 60 meter frequencies (5.3515 thru 5.3665 MHz) on opening day. However, working any station that was operating on day one of the frequency allocation change (13 February 2026) would also be fair game. It would be a matter of propagation and opportunity provided by others operating in the new frequency range. Operators were encouraged to operate from both home and portable locations.

I have many radios however only my QRP Labs QMX was the only one easily "modified" to be able to operate within the new frequency range. My other radios either did not have the 60 meter band as an option or required a firmware update (not available) or MARS modification to operate. A simple change within the menus got the QMX operational. I was able to obtain a 60 meter match my home station antenna, an OCF dipole with my NMOS 4S Antenna Tuner. This home station was complete when I added a NØSA single lever paddle, headphones, a Bioenno LiFePO4 3 Ahr battery, and voltage limiter (9 volt).

Just after the opening gun, I was able to get two SLQS members (N9BSO and KKØU). However, I had to leave for a meeting and that pretty much ended any further evening success. I missed a chance to add to my SLQS list the next morning. I saw a postings on Slack by AF4JF (Herbert) and KC8FDU (Geoff) of a possible SKED on 5.356. I listening intently but heard nothing. I think I might have made the contact had I been listening on more than the feed line. The band came alive when I reconnected the rig to my OFC dipole outside later in the day. I don't remember disconnecting the antenna, but it was once again connected to my main station instead.

My most interesting QSO came right after 05:00 UTC. It helped that Jim Giommanco (N5IB) had posted his intentions of operating his newly minted homebrew 60 meter Hilltopper beginning at 11:00 pm CST later that evening. I think I heard his first CQ but he did not hear my initial reply. Our QSO was a bit more than just a contest exchange. It was definitely worth staying up late to make that contact. I learned the next morning that I was his only QSO that night. I have had many QSOs with Jim in the past. This one may top those we have shared using our 4S QRP Bayou Jumper rigs during London Calling events. He also catches me once in awhile during my POTA activations.

I hung around home a bit longer than originally planned the next morning as Jim (KKØU) posted his plan to activate Taum Sauk Mountain. I was ready to pounce when we went live. In the meantime, I gave consideration to what antenna I might use for my Parks on the Air (POTA) activation. My driveway tests of my 60m hamstick were not a good of match as I might hope. My current means of attachment to the vehicle is a trailer hitch insert with a secondary ground to the vehicle frame. The plan then became to use my Wolf River Coils Take It Along (TIA) with a 102 inch whip.

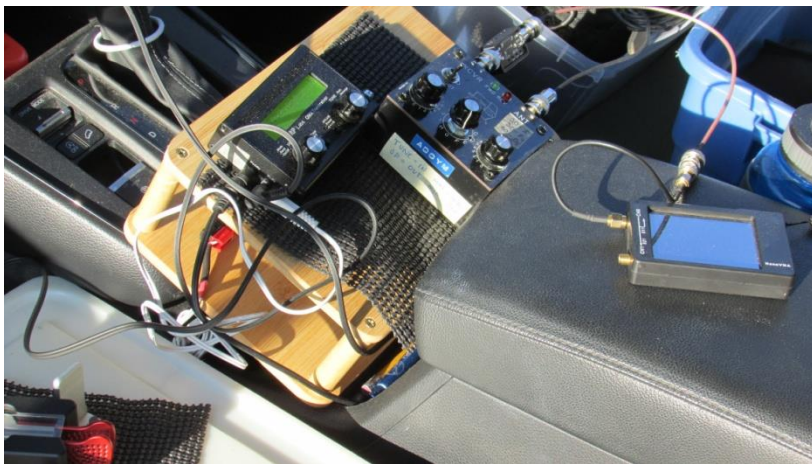
ADØYM - Working the New 60 Meter Frequency Allocation on the First Day - 13 FEB 2026

I was able to log Jim, had lunch and then traveled out to Scrivner Road Conservation Area (US-10458). My POTA station was similar to my home set up for this event except that I used a Begali Traveler paddle and portable antennas as noted. I had a fair guess as to where to set the coil and fine-tuned it for 5.353 MHz with my Nano VNA. The QMX was not happy with my initial setting. I further worked on a match with my NMØS 4S antenna tuner. It was slim picking, but



I did manage one QSO with this setup. I swapped out the TIA and put a 17 ft telescoping element on the Wolf River Coil base and worked 20 meters to complete the activation. Not pressed for time I put up another antenna, a 58-ft random length end fed attached to a 33 foot telescoping pole which was lashed to the corner post of the parking lot next to the road and ran it back to my operating position. I

started with a 23 foot counterpoise. I then tuned for the 30-meter band and was rewarded with a 20 minute pile-up. I tried 60 meters again and picked up a couple more QSOs. Then I swapped out to a 17-foot counterpoise and ran 40 meters for awhile. I concluded using the same antenna counterpoise configuration and picked up six more QSOs on 60 meters. The final count was 53 QSOs with nine on 60 meters. This was the first time I used a random wire antenna as part of my set-up for a POTA. I think I will be able to speed up band changes with some practice/experience with my manual antenna match. Diversity of setup is all part of the fun.



Most of my 60 meter contacts were regional. States worked included: MO, LA, IN, MI, IL, KY, VA, and NC. My "DX" station was W4CHJ. They were 853 miles away from my QTH according to QRZ.com. I did not add the additional miles west from my home to the activation site.

I am cautious to make any judgment about the best time to operate on 60 meters since I did not operate continuously through the

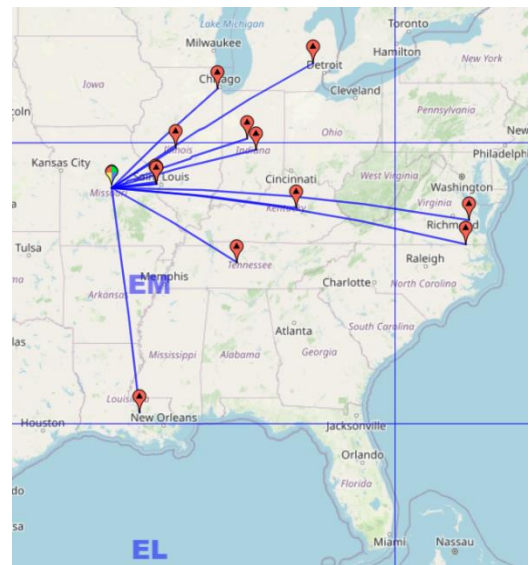
24 hour period. It did seem to work well after dark though I had some fore knowledge of who was available due to SKEDs. My choice of antenna might have influenced the high call effort per single QSO during the middle of the day? I did finally have a nice run after 4:00 pm CST of 60 meter contacts during my POTA activation. I do wonder if radio firmware issues created an artificial

ADØYM - Working the New 60 Meter Frequency Allocation on the First Day - 13 FEB 2026

limit to the number of potential participants. Calling on the original channels in conjunction with the calling on the new channels might provide that answer?

In summary the first four 60 meter QSOs were from home. Three of those were with two different SLQS members. The double contact included KKØU's portable operation the next morning. My POTA activation added another nine (non-SLQS) stations to the log. So with some effort I was able to log 13 QSOs on opening day of the new allocation. It was fun figuring out radios and antennas in order to "celebrate" a new opportunity for QRP operators.

Here is the map of my 60 meter QSOs plotted back to the station's home QTH. All are east of a north south line from my operating position.



Here is my 60 meter portion of the log for 13 Feb 2026:

QSO: 5353 CW 2026-02-13 0005 ADØYM 579 N9BSO	579 FRED	SLQS
QSO: 5353 CW 2026-02-13 0006 ADØYM 579 KKØU	579 JIM	SLQS
QSO: 5353 CW 2026-02-13 0504 ADØYM 539 N5IB Hilltopper	449 JIM	Homebrew 60m
QSO: 5353 CW 2026-02-13 1727 ADØYM 559 KKØU and SOTA	549 JIM	SLQS - Taum Sauk POTA
QSO: 5353 CW 2026-02-13 2002 ADØYM 559 W9GTA	529 PATRICK	US-10458
QSO: 5354 CW 2026-02-13 2143 ADØYM 599 KF9R	559 ED	US-10458
QSO: 5354 CW 2026-02-13 2147 ADØYM 559 N8JY	559 JOHN	US-10458
QSO: 5354 CW 2026-02-13 2226 ADØYM 559 W3AW	559 KIRK	US-10458
QSO: 5354 CW 2026-02-13 2228 ADØYM 559 N4GO	559 JEROD	US-10458
QSO: 5354 CW 2026-02-13 2230 ADØYM 559 W9RJK	559 RICHARD	US-10458
QSO: 5354 CW 2026-02-13 2238 ADØYM 539 N4DJ	559 DON	US-10458
QSO: 5354 CW 2026-02-13 2239 ADØYM 559 WA4CHJ	559 JOHN	US-10458
QSO: 5354 CW 2026-02-13 2244 ADØYM 539 W4AEE	339 MIKE	US-10458

Rory's Visit and Murania Build

de W4WKU

Last November, my brother Doug asked if I would "bring a ham radio" when we visited over the Thanksgiving holiday. His 12-year-old grandson (my grandnephew) Rory was having a lot of fun playing with a cheap SDR radio dongle, and Doug thought Rory might be interested in ham radio. Of course, that was all the encouragement I needed to pack my Elecraft K2 and an end-fed antenna!

While Thanksgiving Day was far too busy and boisterous to set up the K2, Rory took time out from playing with his cousins to show me his radio dongle, and I in turn showed him how to tune in some SSB and CW signals on 40 m with his SDR software. While the dongle performance was marginal, Rory was still excited to learn more about how to use the SDR to tune in both the HF ham bands and (the few remaining) shortwave broadcast stations.

Rory was back at Doug's farm the next morning, eager to see the K2 in action. He helped me install the temporary antenna, and I let him tune around the bands. After a few minutes, I could tell he was starting to lose interest, so I suggested we hunt POTA stations. That allowed him to use his computer to find stations on the POTA spots, and then he tuned them in on the K2. He was hooked! We spend several hours chasing both SSB and CW POTA stations, and he created a paper log in his notebook to meticulously record each QSO.

Rory was definitely enthusiastic about ham radio, and on the drive home, I started thinking about how to keep his interest going. Building a simple kit radio seemed like a good next step, and after a lot of searching online, the Murania AM broadcast receiver kit from Four States QRP Group was clearly the best choice. The Murania is well designed, attractive, and much more functional than a simple crystal radio that would likely just sit on a shelf once built. And it was remarkable low cost at less than \$46 delivered to my door! Since I wanted to ensure Rory's success, I purchased two of the kits and built one in advance of Rory's visit to ensure there were no problems. I printed out the build instructions and made several notes on the build steps, as well as reminders to explain components and basic theory to Rory.

In February, Rory and Doug took a road trip to my QTH. Rory arrived in a whirl of excitement, clearly enjoying the opportunity for a "guys weekend." Friday evening was spent watching University of Kentucky basketball and overeating barbecue (two staples in our family). On Saturday morning, we headed downstairs to the radio lab to build Rory's Murania. Doug was worried that Rory might not have the attention span needed to build the radio, but Rory proved him wrong.

Rory first inventoried all the parts, in the process learning how to identify resistors by color code and read capacitor markings. He also learned the difference between nano, pico, kilo and mega, and how to use both a multimeter and LCR meter. That's a lot to cover for a 12-year-old! Rory next prepped the PCB case parts, sanding edges and using a marker to black the raw edges. I set Rory up to wind the antenna coil, but it was a bit much for him to complete, so I helped out. As we started construction, Rory identified each part to be installed and its location on the PCB following the assembly instructions. I soldered the more difficult parts to install and had Rory solder as many of the parts as possible.

Rory was understandably a bit apprehensive about using the soldering iron, especially after I cautioned him that the tip was at 650° F! I then had the unenviable task of holding parts in place while Rory nervously applied solder and soldering iron. The iron was a bit shaky and some of the solder joints weren't perfect, but there were no cold solder joints or solder bridges. Equally important, there were no burnt fingers! (Rory wasn't sure I was kidding when I suggested we're called ham radio operators because it smells like bacon when we pick up the wrong end of the soldering iron.)

The entire build took us about 90 minutes, and Rory's radio worked perfectly as soon as he turned it on. He tuned through several stations and learned how to orient the radio to best receive the desired channel. Rory was obviously proud of his radio, and a bit in awe that he actually built a working receiver! Rory is already looking forward to more radio adventures this summer, and I'm hoping he'll be ready to tackle the Technician license soon.



PoLo Revisited: POTA Activations on the PoLo Field

Jeff Logullo, NØMII

It's been a few years since I first wrote about PoLo - at the time I was just kicking the tires Today I'm full bore PoLo when it comes to POTA. Here's the update.

Why I Use PoLo for POTA Logging

It's no secret: I'm a big fan of POTA logging on my phone. I've gone from being a skeptic to an enthusiast. I still carry a small notepad and a mechanical pencil for backup, but I haven't used paper for POTA logging in over a year.

The screenshot shows the PoLo app interface. At the top, it displays 'NØMII at US-1751, KFF-1751' and 'Castlewood State Park • Castlewood'. Below this is a table with columns for '21 QS', 'SPOTS', 'MAP', and 'OPER.'. The table lists various QSOs with columns for time, frequency, call sign, state, and signal strength. Below the table, there is a summary section showing '21 QSOs in 19m 24s' and '79 Q/h for last 10'. There are also buttons for 'Their Call', 'Sent', 'Rcvd', and 'State'.

21 QS	SPOTS	MAP	OPER.
Mar 26	21 QSOs	21/44	★ 12
00:09z	7.061.0	W8XP OH	579 579
00:10z	7.061.0	N3XLS PA	579 559
00:11z	7.061.0	W3IKC MD	539 559
00:12z	7.061.0	KF9R IN	599 559
00:13z	7.061.0	AC4WW SC	579 589
00:14z	7.061.0	N3PM PA	579 559
00:15z	7.061.0	K8LF VA	599 569
00:16z	7.061.0	VA3FN ON	579 579
00:16z	7.061.0	N1MHV GA	579 559
00:18z	7.061.0	WB2MQQ NY	579 579
00:18z	7.061.0	WI5D MO	579 599
00:19z	7.061.0	KK0U	599 579
00:20z	7.061.0	K9FAA IN	599 559

Some prefer paper; others prefer other logging programs. That's fine — lots of choices. I'm not trying to convert anybody. I'll simply explain how I use [Ham2K Portable Logger](#) (aka "PoLo") while operating and afterward. I'll point out the features I appreciate and how it has transformed my POTA logging. If you're curious, it costs nothing to give it a try.

PoLo is free to download and free to use. It's available in the [Apple App Store](#) and [Google Play](#). All features are fully enabled at no cost, with optional ways to "show your support." (Well, with one exception... stay tuned.)

Preparing for an Activation

Before leaving the house, I usually consider whether I'll have cell service where I'm operating. It's not essential, but it's very nice if I do. If I'm unsure, I create a "New Operation" while still on Wi-Fi or in cellular range and select the POTA park from the built-in database. My PoLo includes POTA, WWFF ([World Wide Flora & Fauna](#)), and SOTA ([Summits On The Air](#)) data, and the program periodically prompts me to update those files.

I also check whether the WWFF program recognizes the park; if so, I add the WWFF designator. Adding the park(s) also fills in the Maidenhead grid and state. That doesn't matter for POTA, but it does matter for ARRL LoTW. I submit all my PoLo data to

LoTW, so having that information included is essential.

Getting on the Air

Once I'm set up at the park, I open PoLo and bring up the QSOs screen. I set a tentative frequency, double-check my mode (CW) and power (5W), then switch to the Spots screen to see who's active. With "automatic" filtering, PoLo shows spots matching my current band and mode.

Let's say I see nobody on 14.066. I tune there, listen, hear nothing, and switch back to the QSOs tab to enter "14066." Then I send "QRL? ... QRL DE NØMII." If the frequency is clear, it's time to start calling CQ POTA.

I give the radio's memory keyer a poke and it sends "CQ POTA NOMII NOMII"—my standard cadence. While that's going out, I tap the self-spotting button. PoLo submits a self-spot to both POTA and WWFF within seconds. Then I grab the paddles and start calling CQ manually to warm up.

Working the Pileup

A call comes back — N3PM. I enter the call and tap space. Immediately I see "Mike Zyara, Jr" and a light-grey "PA" in the State field. I also see "+1 QSO," meaning I've worked Mike before. PoLo builds a

database of previous contacts, and I enjoy adding names to the exchange — guaranteed to hear "JEFF" come back.

If I've never worked the station before, PoLo uses my QRZ.com subscription (or other free lookup sources if you're not a QRZ subscriber) to fill in their name and QTH.

Back to this contact: I send "N3PM TU UR 579 MO BK." While he's sending his reply, I enter the report I sent. I only need to type "7" — PoLo expands it to 579. When I hear "559," I type "5" and space. Again, PoLo expands it. I wait to hear "PA" to confirm the pre-filled state. If something doesn't match, I ask for clarification and correct if necessary. I tap the Enter button, and the record is complete.

← Operation Info

Operation Stats

21 QSOs in 19m 24s
79 Q/h for last 10

Thursday March 26th, 2026: 21 QSOs

🌲 POTA: 21 activator QSOs • 1 P2P QSO

✅ US-1751: 21

Operation Totals: 21 QSOs

📶 WWFF 21 activator QSOs

❌ KFF-1751: 21/44

🌐 2 DXCC Entities

🇺🇸 United States (19) 🇨🇦 Canada (2)

★ 12 US States

AL	AK	AZ	AR	CA	CO	CT	DE
FL	GA	HI	ID	IL	IN	IA	KS
KY	LA	ME	MD	MA	MI	MN	MS
MO	MT	NE	NV	NH	NJ	NM	NY
NC	ND	OH	OK	OR	PA	RI	SC
SD	TN	TX	UT	VT	VA	WA	WV
WI	WY						

📶 40m - 21 CW

Catching DX and Hunting P2P (Park to Park)

"F1BLL" — DX! Self-spotting with WWFF often brings DX to your door. I've logged a respectable number of DX stations while running QRP with a hamstick on the car roof at Castlewood. WWFF hunters send "44" instead of "73," and I'm sure to send "72 ES 44" back.

If things slow down or I'm close to 10 QSOs, I check the Spots tab for POTA activators. If I hear one, I tap the spot and PoLo pre-fills the call, frequency state, and park — even marking it as P2P. I tune and listen. If I can't hear them or give up on the pileup, I tap Clear and PoLo restores my previous CQ frequency. I return the radio there and call CQ. My spots keep working, and I pick up right where I left off.

Reviewing the Activation

When I'm finished, I review the Operation Info screen: QSOs, time, rate, DXCC entities, and states worked. The Map screen gives me a nice visual of the activation.

Submitting Logs

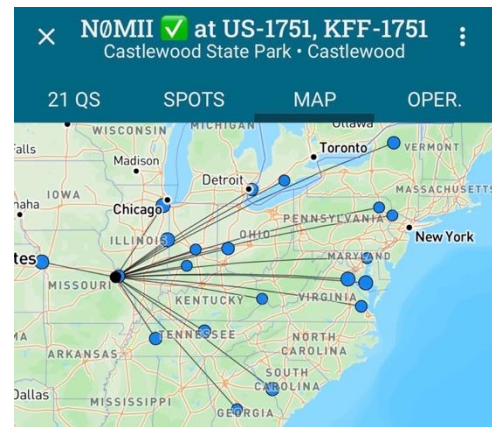
Submitting logs is never the highlight of POTA, but PoLo makes it about as painless as possible. I've already entered everything — no transcribing from paper. I tap Export and save the file wherever is convenient. If I'm only doing POTA, I can upload the file directly from my phone before I even leave the park.

I go a bit further. I export three files: one for POTA, one for WWFF, and one for my station log (N3FJP AC Log).

After importing the full ADIF log file into AC Log, I submit to LoTW. With postage prices spiraling out of control, LoTW has become my "final courtesy." It's easy, automatic, and a lot cheaper than QSL cards. I remember when I was chasing WAS QRP - several the QSLs I needed came via LoTW. Who's at the other end what are they chasing? Missouri? My county? My grid? Who knows. But I submit and hope someday it's appreciated at other end.

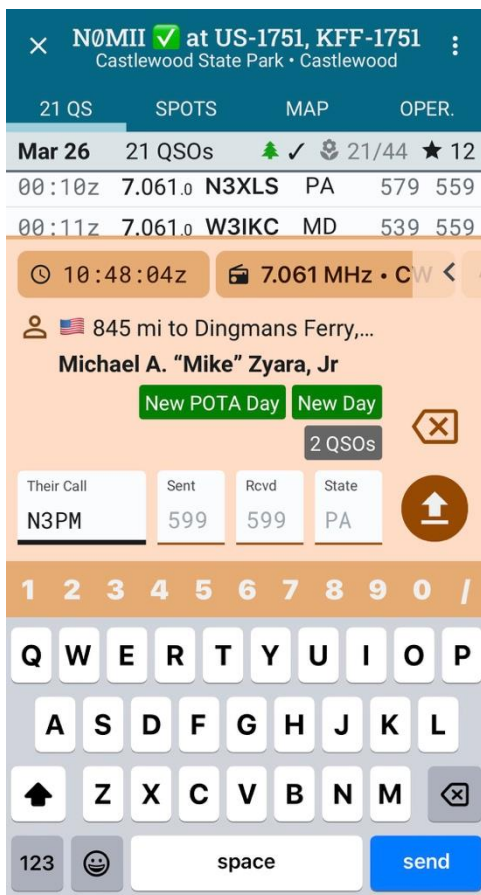
AC Log also makes it simple to upload to eQSL and QRZ. I pay much attention to those systems, but many hams do — it only takes a few clicks. Up they go!

WWFF is slightly less automated: I email my WWFF log to Zero-call-area coordinator. It supports the hunters, and I occasionally qualify for awards. PDF wallpaper — can't have enough!



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Why I Don't Miss Paper Logging



When I think back to the paper logging days... well, let's just say I don't miss it. Yes, I carry a notebook and pencil for backup, but I hope I'll never need them.

I also think back to earlier electronic logging attempts: laptop → tablet with Bluetooth keyboard → phone with Bluetooth keyboard → finally realizing the on-screen keyboard is all I need. My "logging gear" is just my phone — and I've got that with me anyway.

A Few Extra Tips

On iOS, I created a Focus mode called "POTA." When it's active, all notifications are silenced except HamAlert, Slack, and Messages from my XYL. (I also silence the speaker so I'm not trying to decode beeps from both the radio and the phone at the same time!) It's not uncommon to switch between Slack and PoLo while operating — plenty of time to chat with fellow SLQS POTA ops while the memory keyer calls CQ.

The One Paid Feature: LoFi

PoLo's only paid feature is LoFi ("Log Filer Sync Service"), which syncs logs across devices. If I want to use my iPad or a Mac, all my logs are there. It's a nice backup and keeps my "who I've worked" list consistent. I enjoy PoLo enough that I'm happy to contribute a

few extra dollars.

The online help and forums are active, useful, and constantly updated. The community is thriving, and I'm impressed at how focused the program is.

Logging Other Contests etc.

PoLo has added support for other contests: state QSO parties come to mind. To me this is the "bleeding edge" and I can't speak to these programs. I've only used PoLo for POTA/WWFF/SOTA, activating and chasing from the back yard. My advice is to test thoroughly before committing to any activity and make sure you get the results you expect. I look forward to hearing from others about their PoLo experiences.

Final Thoughts

Curious? Give it a look. It's free — the ham's favorite price tier — so it costs nothing to try. You may just be tempted to leave your notebook in your backpack one of these days.

Cooling the KX2

By Dave Corbin - WØDCX

Whenever I use my KX2 in a warm environment, I notice that the output end can get hot to the touch and the internal PA temperature can sometimes reach power fold-back levels. This is particularly noticeable when I am outdoors or in my car on a warm day and especially when I am working a POTA pile-up or sending an intense string of CQs.

There are several ways to mitigate the temperature concern, one of which involves installing an after-market finned end plate on the transceiver. Not wanting to crack open and modify my precious KX2, I thought about other options. I settled on a small rechargeable battery-powered fan that I can set next to the radio. I bought one on Amazon.com for \$16. This little hand-held fan has multiple speed settings, a swivel fan head, is very quiet and can easily be positioned adjacent to the business end of the radio in almost any situation.

I tried out this fan for the first time during the 2026 MOQP when I was operating POTA portable. I found that the fan effectively maintained an acceptable PA temperature while transmitting and provided a much faster recovery from higher temperatures during pauses in sending. And this was on the lowest fan setting.

I am confident that the fan will improve the comfort and efficiency of my field operations. And as a bonus, I can also point the fan at myself if my personal fold-back temperature is approached.



POTA on the KATY Trail

in St. Charles County, Mo.

The Katy Trail is an old railroad bed that extends from Machens, Mo. to Clinton, Mo. about 240 miles long. It was the Missouri-Kansas-Texas Railroad (MKT) nicknamed the KATY. The train ran all the way into Texas but shared other RR Lines from Clinton, Mo. to Texas. The MKT had shut down for many years and finally became a part of the Missouri State Parks. The state converted it to a walking and bicycle trail, and it is the longest developed rail-trail in the country.



Like many other POTA locations, the entire trail shares the same park number. The KATY Trail is US-1766. There is no special designator as to where you activate along the trail. For nothing more than my own gratification, I decided to activate every trailhead throughout St. Charles County where I live.

There are 8 Trail Heads and several other access points in St. Charles County. I began in Machens and worked my way thru St. Charles, and I have now worked all the way to Marthasville, the county line activating all of the Trail Heads and several access points. I have also activated Sedalia and Clinton, the end of the KATY Trail. I plan to activate other locations further to the west along the trail in the future.

My equipment included the Elecraft KX3 at 5 watts and various antennas. My go to antenna is a 28 foot vertical wire on a 31 foot Jackite fiberglass pole. I also use the 10 foot circumference SLQS Mag Loop, SLQS POTA 20 (a 20 meter 4 foot high vertical with a base coil), 20 meter dipole and a 43 foot horizontal or inverted vee wire. Most of the dipole and wire installations are supported by the fiberglass pole.



**KX3, NØSA Paddle,
SLQS POTA 20 Antenna**

In Missouri from Machens to Booneville the Katy Trail also parallels and intersects with the Lewis & Clark National Trail, US-4572, from St. Charles to Jefferson City, Mo. is Missouri State Hiway 94. So the activation will be a twofer. *From mostateparks.com; The section of trail between St. Charles County and Cooper County has been designated as an official segment of the Lewis & Clark National Historic Trail.*

de KCØPP

OZARKCON 2026

de ADØYM

This year's OzarkCon (Branson, MO) hosted by the Four State QRP Group ([Four States QRP Group](#)) was one of my most enjoyable. I have attended seven out of the last eight years. (A family emergency kept me from perfect attendance.) In the early years my focus was attending the presentations. It has become much more in recent years. OzarkCon is much more than a symposium. I now come a couple days early. The travel time provides opportunity to expand my new to me Parks on the Air (POTA) list. This year was a banner year in that category with the addition of fourteen out of 16 activations. Also, Thursday morning breakfast at the host hotel includes a gathering of Summits on the Air (SOTA) enthusiasts who plot which nearby peaks will be activated by the end of day. I will note some started the day before as I did for my POTA addiction. These activities expand into lifelong friendships with other like-minded folks. Time spent together in planning and then travel, and activation is a great investment. I will make one of the SOTA field trips next year! Like the SOTA planning "session", I have also come to enjoy the mealtime banter and hall talk even more than the presentations.

I do not want to undersell the presentations. One of this year's more entertaining presentations was *Conquering Ben Nevis*. Jim, KKØU got into character with costume and accent to describe his travails along with his success in activating the highest peak in Scotland. While not every presentation resonates with me it does create opportunity to consider ways to stretch my QRP journey. For example, this year I now see the possibilities of SSB operation using HF Digital Voice with FreeDV. My main interest is completing portable ops using CW as my mode but certainly this could be something to try in order to broaden my horizons and add to the fun of QRP operations. I like building electronic projects. I found *Arduino Projects for Ham Radio* presented by Glen, KW5GP helpful enough to nudge me deeper into the world of microcontroller projects.

One other aspect I should mention is the meetings' location. My XYL is not a licensed ham. However, she has been very supportive and attends. She may not understand everything but usually comes away with some value added concept. Still, I make it a point to do something with her that is non radio related. Branson, MO has a lot to offer. In past years we have done music shows, specifically those presented by the Sight and Sound Theater. This year it was the Titanic Museum.

OzarkCon also provides other extracurricular activities on site. There is a build session on Friday night. This year's project was the debut of the Menthos Morse, a touch paddle for CW operation. Not only do you get first shot at obtaining a new kit, but you also gain after dinner

entertainment from those seated around you. The event also includes a dummy load station (KØN) for participants to chase. There is a homebrew competition with multiple categories ranging from compete scratch projects to modified kits in several subcategories. Another fun challenge is the wacky key competition where just about anything might appear that can open and close a circuit. There is also a vendor fair and swap meet. In recent years a POTA demonstration and activation at Table Rock Lake State Park have occurred on Friday morning.

Sometimes the weather even cooperates. At least there is always good overhead cover and clean restrooms nearby. There are lots of door prizes as well. Almost everybody gets to take a prize of some sort home. In other words, there is something for everyone in the universe of QRP operation. Still, I enjoy the hall talk and time spent in the common areas just talking radio. I'll admit once being somewhat intimidated once being a newbie but have since found no matter our experience there are folks who are patient and more than willing to share.

For those not familiar with OzarkCon take a look at the website at [OzarkCon 2026](#) for a comprehensive summary of the meeting to see if you might wish to attend next year.

Four State QRP Comfortable Nets

Meet each Wednesday night beginning at 20:00 Central Time. Add anything to the exchange that you wish, temp, rig, ant, etc.

Checking into all sessions is encouraged. We call it the "Clean Sweep".

CW - 8:00 pm Central time - 40 Meter Net on 7.122 +/- QRM ACØBQ/NCS

CW - 8:30 PM Central time - 80 Meter Net on 3.564 +- QRM ACØBQ/NCS

DMR - 9:00 pm Central time - DMR Net on Talk Group 31654 NØYJ/NCS

JS8 Net - 1700 UTC until 0030 UTC, NYØJ

Currently there is no PSK31 Net

All are welcome!

DMR Voice Net

Wednesday evening DMR Voice Net will be at (Thursday) 0300 UTC (9:00PM Central Time Wednesday/) Four States QRP has a Brandmeister DMR Talk Group (TG31654). Join us to discuss QRP, ask questions, or just ragchew. The Wednesday net is a directed net but any other time you may use the Talk Group to chat with other QRPers. Net Control operator is Bert NØYJ.

For information and help, check out the DMR subgroup on 4sqrp.groups.io

<https://4sqrp.groups.io/g/DigitalFM>

Second Sunday Sprint

Occurs on the second Sunday of each month, 7 to 9 PM Central
Any mode, any band (except WARC & 60 mtrs) -

- Suggested frequencies: standard calling freq. plus 7122 and 3564 (CW), and 3985, 7285, and 14285 (SSB).
as well as the usual QRP watering holes.

QSO's with the same station on different bands are allowed. CW and SSB portions of a band count as two bands.

- Calling CQ is suggested to be "CQ 4S"
- Exchange is "RST, SPC, member number (power if non-member)"
- 5 Watts max CW, 10 Watts PEP max SSB.

The station with the most contacts each month will be emailed a certificate. Furthermore, the top three stations with the most SSS contacts during the year will also receive certificates via email.

Scores are submitted via the grpcontest.com/4sgrp website (compliments of W8DIZ).

For full details, please download the [complete rules \(PDF\) here](#).

For questions, please contact **Walter (K5EST)**:

SecondSundaySprint@4sgrp.com

Thursday Morning

The Four State morning CW Net has been convened for members who like to start the day on the air.

We meet each Thursday morning at 8:00 AM Central on 7122 kc.

7122 has become the Four State 40M hangout frequency, and often members can be found there on any morning.

Editor's Note:

Articles are needed to make every Banner issue successful. If you have something of interest, please send it to the editor at the email address below. You do not need to send a finished article. You can send some comments, notes, etc. and I can put it all together for you. Pictures are always of interest. I prefer articles in **Word** format, that works the best, but I will try to work with what you have as I can. Some of the items of interest would be outings and/or operating events by yourself or a group, construction projects, radios, antennas, accessories, QRP Field Day, SOTA, etc. Anything QRP is welcome.

de KCØPP

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