

## Are You Coming?

**Ray Zinn's Antenna Field Day is June 7** at the Zinn ranch, 7799 Clausen Road, 59601. Ray K7ZIN says: *We will be building a variety of VHF and HF antennas; we'll have a fox hunt, door prizes, and refreshments.*

Ray will provide the materials and needs to know how many are coming. DeLona KI7YMZ is providing the treats!

Email Ray to let him know you will be there.

11 am – 2 pm, June 7 - [rayd.zinn@gmail.com](mailto:rayd.zinn@gmail.com)

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## Tech Expo At Helena Middle School

By Marla Unruh KM7LIB

The Tech Expo, the brainchild of middle school librarian Amy Friez, gives HMS families the opportunity to visit and explore various STEM demonstrations. In addition to amateur radio, there were digital art, robotics, Tinkercad, and aeronautics, with various displays in the library.

We set up three stations. Keith Platts KM7AEM and I had handhelds. He brought two VHF radios with plug-in mics to try simplex. I had a DMR radio to communicate with Brian Lee KJ7OUF, who was at home waiting to receive. Dave White WA7YFF set up his HF radio and antenna to transmit digitally on Contestia with Dan Hawkins N7SHM.

### Coming Events 2025

**CCARC monthly meeting** – June 2, 7 pm at the Salvation Army, 1330 Hudson St. or on Google Meet, <https://meet.google.com/zfs-ctwp-bax>

**Antenna Field Day at the Zinn Ranch - June 7.** Contact Ray Zinn K7ZIN to save a place. [rayd.zinn@gmail.com](mailto:rayd.zinn@gmail.com).

**Governor's Cup - June 14.** John Geach\_KS7R

**Field Day – June 28-29.** Devil's Elbow. Camp Out Friday - Sunday or come for the day.

**Glacier-Waterton Hamfest.** July 18-21. <https://www.gwhamfest.org/registration/online-registration>

**Elkhorn Run - August 2.** Rob Kingery AE7AP.

**Coffee Net** – Every Saturday at 9 am on 147.22, Belmont Repeater. Eyeball @ Red Atlas at 9:30.

**Trivia Net** - every Sunday, 7:30 pm on 147.22. John Monson AJ7MT

John Dorr K5LBP brought an oscillator and two keys for CW practice. As the families came in the door, they wandered from station to station trying ham radio.

Just for fun, I asked a boy, “Hey – want to talk to a grumpy old man?” He and his mom laughed, and she said, “He talks to his father every night!”





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## Governor's Cup June 14

By John Geach

Attached to the emails I sent are the Governor's Cup Race station assignments and course maps. The 10K race follows some of the same course as the half marathon, so you'll see both runners at those stations. Try to record both the half marathon and 10k runners through those locations.

Report the first 3 male and 3 female runners in each race through your station and report them to race control. Do your best with the 10K since they may be bunched up especially in the beginning of the race. Both races start at 8:00 AM on Saturday June 14.

For those who ordered a T-shirt, I'm picking them up this week and will have them at the June club meeting. If you won't be at the meeting, I'll have them at the race finish line. I'll cover this material at the club meeting. I'll also be sending out a runner tally sheet for you before the race.

If you have any questions, or if the assignments I sent in the email won't work for you, please let me know. ~Thanks, John KS7R

## Updates

By Al Simons

### ITEM1:

One of the many services Don Heide, W7MRI/SK provided to the ham community was repairing and maintaining others' equipment when such repair was beyond their capability. If Don was working on equipment for you, please contact Kevin Heide, KB7HSA, at [kheide@gmail.com](mailto:kheide@gmail.com) so he can locate it and get it back to you.

### ITEM2:

Welcome Dale Osborne KA7MHP as the new Frequency Coordinator (also called the Repeater Coordinator), taking over from Don, W7MRI/SK. Dale has experience coordinating public safety frequencies for Montana, so ham frequency coordination should be a much easier job!

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## POTA EXPLORATION

By Kathe Simons

Last Thursday, I met Sue Little KK7PSY, Annie Bailey, and Bob Thola N9IB at Spring Meadow Lake State Park so they could experience a POTA (Parks on the Air) activation. Bob's been an active POTA hunter from his home shack; Sue wanted to see what POTA is all about; and Annie was curious about all this POTA buzz (maybe she'll want to get her license some day!).

I briefly reviewed the history of POTA and how it grew out of a special event "National Parks on the Air" in 2016. I set up my radio, lithium battery, digital clock (set to UTC), and the mag mount antenna on the roof of my Subaru. We looked at the POTA app on my phone and I had fun showing them my "stats" (I'm closing in on 250 activations).

We're very lucky to live so close to 5 different POTA sites (Spring Meadow Lake SP US-2598; Scratch Gravel Hills US 11242; Devil's Elbow US-10526; Black Sandy SP US-2562; and Lewis and Clark National Historic Trail US-4572).

We got on the 20-meter band and "spotted" ourselves on the POTA app. The band was really up and down; a radio contact was strong one moment and within seconds, the audio faded away into the dirt. I was able to make 14 contacts (you need 10 for it to "count" as an activation).

Sue had lots of questions and she's game to try a "2-operator" activation (we'll pass the microphone back and forth) in about a month's time. Bob may just be planning for his first activation.

Success! You'll need to catch up with Annie at coffee to see if she's studying for her license. I hope so! Please don't hesitate to ask if you'd like to come experience POTA – it's great fun!

*~Kathe Simons, N1NYT*



## From Wake Island

By Al Le Vie KH7AL

Recently I was featured on a podcast called All Across America. The host reached out to me, interested in what it is like living and working here on Wake Island. We chatted about my time in the service, Wake's history, and my favorite: ham radio.

If you are bored here is the link to his podcast site, episode #62. It is also available on Apple Podcast and Spotify. <https://allacrossamerica.com/>

Also, I committed myself to make some short videos about Wake (some ham related, others just to share more about the island) over the next few weeks and months. I made my first of those videos last night, showcasing some beach views and old WWII bunkers.

[https://youtu.be/HVdyimpTclM?si=9lzLP1yA\\_KsEice](https://youtu.be/HVdyimpTclM?si=9lzLP1yA_KsEice)

*~ Cheers, Allen Le Vie KH7AL*

406-304-0325

<https://kh7al.site>

## Answer to Ray K7ZIN's Question

By John Geach KS7R

Last month, Ray K7ZIN noted he had made a 1143-mile simplex contact on 2 meters and wondered how that could have occurred. Ray's contact was made on April 29 at close to sunset local time. At that time of the year, we were still under winter weather conditions and may have been experiencing temperature inversions. These weather conditions would have been right for tropospheric ducting to have occurred. This phenomenon can explain how VHF and UHF signals can travel past the horizon for many miles, sometimes over a thousand as in Ray's case.

When tropospheric ducting occurs, VHF and/or UHF signals enter between two refractive layers that form due to temperature inversions in the atmosphere. These signals can travel with very little attenuation through the "duct" until they reach the other end, many miles away. I found a good YouTube video that explains this phenomenon, *Understanding Tropospheric Ducting* -

<https://www.youtube.com/watch?v=bB7Aji0KtxA>

I hope that answers Ray's question and explains his exceptional contact.

~John KS7R

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## Let the Adventure Begin

### A New Ham Looks for His Footing

By John Dorr KA5LPB

So, I studied hard, and I got my ticket. And I received my vanity call sign: K5LBP, which was my dad's call. I put off getting on the air until I had that call because I didn't want to explain to anyone that my call had changed so suddenly after getting on the air with them. And a big part of the

truth is that I was and still am somewhat terrified to push the transmit button.

Reading about protocols, such as how often to state your call, how to properly call CQ, just isn't enough. Plus, there's the fear of exposing my ignorance of Q signs, trying to remember what is and isn't proper etiquette and so many other concerns, I have to admit I'm afraid of doing something wrong and becoming an on-the-air pariah. I feel like a med student or surgeon about to pick up scalpel and make his first incision. Kinda scary.

Add to that I have equipment concerns, and questions. I picked up an HF radio and now I have to find and install an antenna. And a ground rod. And a lightning arrestor. And an antenna tuner. And get a power supply. And wonder what else I'm missing. And HOW exactly I install that antenna. And route the coax into the house. It goes on and on, around and around in my head.

Oh, and my new HF radio doesn't do 6 meters. But I found a quad band mobile radio that does. Maybe I can use it inside the home ham shack, too. So how do I set it up for easy in-and-out setups in the vehicles and the home shack? And can I boost its manufactured power output or is it enough? And does anybody even use 6 meters? (I remember my Dad used that band almost exclusively.) Where is all the action anyway? So many questions.

I have forgotten who in this group told me, and there was more than one ham who said it, but they were so right: getting my ticket doesn't mean I really know anything - it's just a license to learn. Let the adventure begin.

## VE Test Results

By John Geach KS7R

VE exams were held on May 22 with Devin Felix KM7AXU passing his Technician and General exams. Devin is our newest Helena Ham and CCARC member. Congratulations to Devin and thanks to Al WA1TYB, Rich N7GC and Darrell KG7LNA for assisting with the exams. The next VE exams are scheduled for July 9.

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## Gallatin Valley Ham Radio Club

### New Members Sam and Kat



Sam KI5AOB is one of our newest members to the Gallatin Ham Radio Club. He and Kat KK7WZW, college students, came to a club meeting where they were invited to our Hams N Coffee in Belgrade. They are currently working on soldering together a QRP radio. Our club president, Spencer KJ7SSS was moving and had an extra HF radio he offered to the next Technician to pass the General. This gracious offer motivated Sam and he got to work! Sam successfully passed his General test and was awarded the Kenwood 570S! He shared with us at coffee that he was so excited to have the radio that he lugged a car battery up the stairs to run his new HF rig! Sam has now been gifted with a power supply and

antenna for the HF rig. Our members are just so generous!

We all enjoy helping and hearing of Sam's and Kat's adventures in ham radio.

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## Camper Shakeout @ Duck Creek

By Stacy Webb KK7CJV

The weather was excellent all weekend for the ham radio Camper Shakeout at Duck Creek Campground on Canyon Ferry Lake. Saturday morning was the WY NVIS event, and I tried making contacts. I was able to get a Wyoming contact on 80 meters, but then noise increased on 40 meters, and I was only able to contact a station in Havre. The rest of the time we all made radio contacts for POTA, and tested new antennas and radios.

It was great to visit with our ham friends from Helena:

- Brian KJ7OUF and Linda
- Steve KF7HJS and Karen.

Brian, net control (portable from the campground) for the CCARC Coffee Net, noticed the 20 miles from Helena section was a bit light since most of us were in the campground. The newest CCARC ham, Brandon KK7SBS, swung out for a visit.

From the GHRC, these all enjoyed the conversations, radio play, and meeting new hams.

- Mickey KK7NNE
- Norm KD7TQM
- Renea KF7DER
- Ryan KG7PWS
- Bruce KE7SJZ
- Michael N7DAY

Ryan lit up the night with his 1965 Coleman lantern while he and Michael shared stories.

Cody K0DYS and Cynthia K1ORA traveled from Colstrip with their grandson to join in the fun of the Camper Shakeout while vacationing around Montana. Cynthia, originally from New Zealand, explained her vanity call sign and its meaning. It is a play on greeting “Kia Ora,” pronounced “kiora” in Maori, the language that is native to New Zealand. It means “good health.” We enjoyed hearing a new accent.

Eric KE7NLU and others experimented with and discussed antennas, solar, and the QRP FX4CR 20-watt radio. Bruce, Ryan, and Mickey all showed us the versatility of an e-bike. Since more R&D and testing of the e-bike is needed, it was suggested that at a future camping trip e-bike riders conduct a speed test.

Everyone enjoyed meeting old friends and welcoming new, while playing radio and shakin’ out the campers.



## GHRC and Scouts Spring Jamboree

By Stacy Webb KK7CJV

The Gallatin Ham Radio Club team made the Mountain Valley District of Scouting Spring Jamboree a HUGE success!!

Sam KI5AOB Sue KK7RYG Stacy KK7CJV Todd WA7U Eric KE7NLU Sally KJ7WFN	Pat KK7KGP Carol KA7ROL Harley KI7XF Mickey KK7NNE JP-KG7NXO* John-NZ7W* *not pictured below
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JP and John were the Global Intel Relay station where scouts tried making contacts on HF. John brought and set up his hexbeam antenna and radio. The bands were not cooperating that day so no joy for the scouts.

Sally, Sue, and Todd were the Covert Comms Academy station where they taught radio basics, phonetics, CW, and Q-codes. The CW trainer by Sparkgap Labs was a huge hit as the scouts tried sending their names using CW.

Eric, Mickey and Stacy conducted the Antenna Fabrication Lab station where they explained the different frequencies of ARDF and helped build tape measure directional antennas to be used in the afternoon fox hunt.

Harley and Sam, our newest and youngest club member, trained the scouts on how to find a hidden signal/transmitter at the Signal Triangulation Course station.

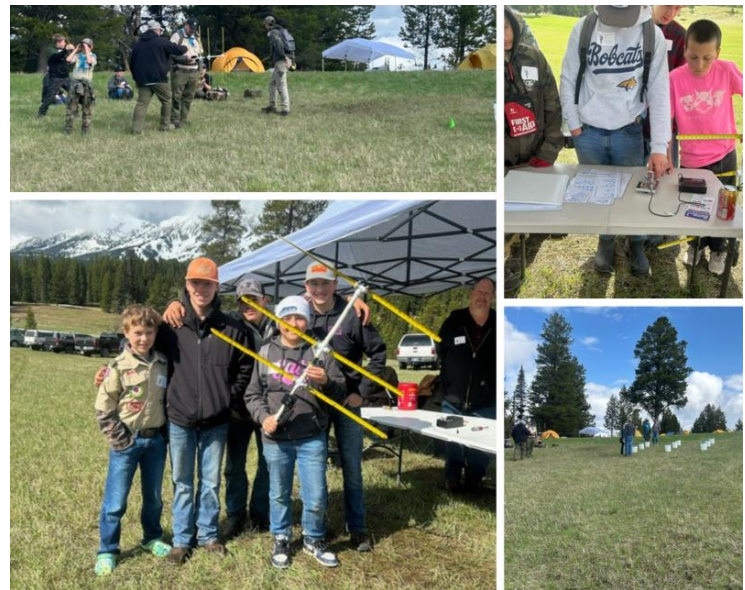
Pat and Carol helped by fielding questions from the scouts, troop leaders, and parents.

All the troops equipped with their tape measure antennas took off to find 3 hidden transmitters in a forested area, 1/2 mile by 1/2 mile. The scouts had to use their mapping and orienteering skills to triangulate the signal and write down the correct

flag number on the transmitter. There were decoy transmitters hidden as well to make it challenging. To our surprise, after just over an hour and 4 minutes, the first troop returned to the flagpole and successfully opened the treasure box with the correct numbers to the combination. We as a team did a great job of teaching the scouts how to find a hidden transmitter! I have been fox hunting for just over 3 years now, and I can't find 3 transmitters in an hour! We watched as each team came up the hill to the flagpole, faces beaming with smiles. A couple of our own members took advantage of the hunt and brought out their antennas to hunt the hidden transmitters. They, too, returned with smiles and blossoming camaraderie.

The many smiles we witnessed through the day were evidence of a monumental success, a success that can only be attributed to the hard work, dedication, and fun attitude that this team brought to the event! Review from the scouts: "That was the best camporee I have been to!" A GHRC member commented immediately afterward, "That was an epic event!" Now that we have all recovered, we can start planning for future events with the scouts. Some scouts and their parents were interested in testing for their Technician license, and GHRC has a grant to pay for any scout licensing fees. If they successfully pass the test, they will also win a free handheld radio.

Watch for upcoming updates!



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More →

## For Sale

Kenwood TS-590s with an external Kenwood speaker and the speaker kit to make it sound less tinny. Original box and manuals also included. I feel it's a good deal at \$750, so would like someone in the club to have first dibs. Nothing is wrong with it, I just found I prefer a simpler radio.

Cody Melton AI7CA, [codygmelton@gmail.com](mailto:codygmelton@gmail.com)

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I have an FTM-10 for sale. It has been mounted on my Honda Goldwing motorcycle and garaged for a few years. I am trading in the Goldwing for a convertible and no longer need the FTM-10. It has a few hours of receive time, to be sure, but has - literally, only a few minutes of transmit time. Comes with a loud external speaker and mount. Asking \$250.

Dave White, WA7YFF. (406) 227-0123



## Capital City Amateur Radio Club Helena, Montana



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