

Field Day, 2003

w7zoi

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This year was a disappointment so far as radio operations go. However, it turned out to be a great, albeit casual hike with a wonderfully scenic summit camp experience.

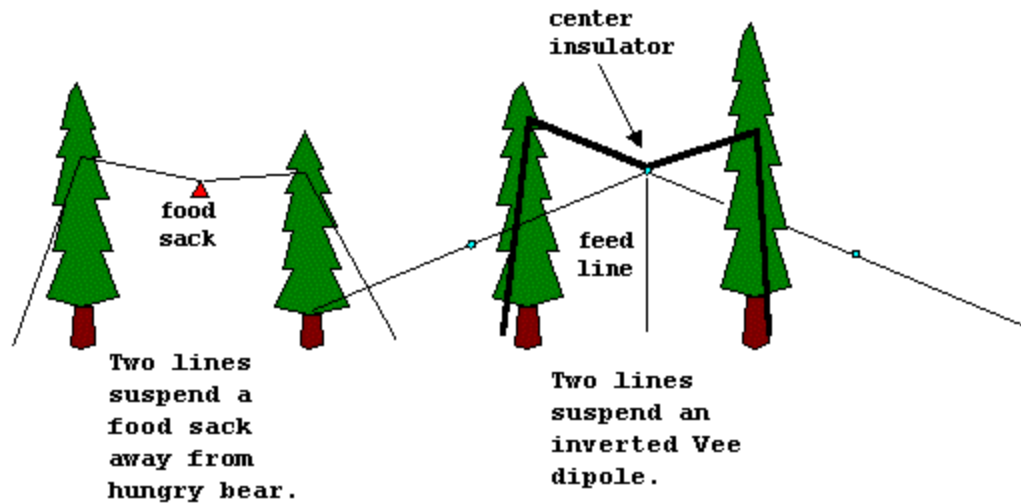
I had been anxious to get out for an overnight backpack with the radio gear. Two weeks earlier Roger and I had been to Lookout Mountain for the June VHF contest. This area is normally not open this early in the year, but we are coming off of a light winter, allowing early access to the high country. The maps indicated some potentially good HF locations on the ridge SE of Lookout Mtn. My goal was to find an area that was flat enough for camping, yet on the edge of a drop off toward the east. This would allow a low angle signal to be generated with a dominant lobe in the desired direction.

I was also looking for solitude. While some radio amateurs look for locations where they can interact with the public, I've found that radio installations in the back country tend to be viewed in a negative light by fellow hikers. They seek some solitude of their own in a natural setting and are put off by too much technology that has been hauled in. Most are polite and some are even interested. But most would rather not see it. An operation from an off trail location deep in the woods is rarely encountered by the casual hiker. I'm always careful to leave no trace when I'm finished, so the solitude and wild flavor will be available to the next eccentric radio amateur venturing into those hills.

I drove up past Government Camp on Hood's south side and on to the trailhead for Lookout Mtn. I got started hiking at 10 and was on the 6500 ft summit within an hour. (It's an easy hike, less than 2 miles and only 600 ft of elevation gain.) The weather was uncomfortably warm in the lowlands, but was tolerable at 6500 ft. The views were surprisingly clear for a hot day with good visibility in all directions. I took a few summit shots and then headed down the ridge to the SE. I encountered a bit of snowpack, although not enough to have justified bringing the ice ax that had been useful two weeks earlier. I crossed a knob on the ridge and then dropped several hundred feet to a wide timber covered saddle where I hoped to find the location of my dreams. Quite a bit of scouting provided just the spot. It was a relatively open and flat clearing in the woods with a slope to the east. The drop off was several hundred feet at a gentle rate to a few foothills that then merged into the deserts of eastern Oregon. There was also a ridge behind me to the west, providing just a bit of

shielding from and to W7EL who often operates FD from a location about 10 miles away. While the views were lacking, I could still catch a glimpse of Mt. Adams, 60 miles to the north in Washington. I also had enough snow that I would not have to hike to the lake another mile away to get the water needed for camping.

Having found the "dream" location, I set about the chores of erecting an antenna. I found a suitable rock in the woods and quickly had a line in a tree. However, the location was poor for the inverted Vee, for branches below the one holding the line were in the way, compromising the spreading of the ends of the Vee. A second line was placed in a second tree, allowing the inverted Vee to be set up in a "Bear Wire" variation, shown in the following sketch.



My term for this two rope method refers to the technique shown for protecting backpacker's food from hungry animals. The method is especially useful for antennas, for once the dipole center is aloft and fixed in place, the antenna may be rotated as needed.



Once the antenna was in place, I pulled the rig from the pack and proceeded to get on the air. The rig was a transceiver for 40 meter CW with an output of 1 Watt with 12.0 volts on the box. Output was quite a bit higher with higher voltage. The battery was a 1.8 Amp-hr NiCad 12 volt pack. The system was set up near a comfortable rock "chair" and I quickly made a few contacts. The rig seemed to be working great, so I took a short lunch break. But once I got back on, I made no more contacts. After fighting with the equipment for a while, I attached the transmitter to the un-terminated transmatch, now switched to the "bridge" position, and hit the key. The indication was clear -- there was no RF coming from the transceiver. The receive function continued to work well, but not the transmitter.

I listened for a while and was sufficiently pleased with the results that I was able to resist the urge to throw the transceiver over the cliff! I was hearing the expected west coast stations, all with strong signals. But the icing was the mass of signals found a layer down, below the loud "locals." Signals from the mid west and the east coast were plentiful. This would not be at all unusual for evening hours at 7 MHz, but this was 1 PM PDT (1900 Z). The difference from what I hear at home was profound. This is a location that I'll have to visit again!

The first thing I did upon returning home on Sunday was to pull the lid from the transceiver to see what the problem might be. The problem was

immediately evident. The 2N3866 PA was defective. Now came the more subtle chore of figuring out the circumstance that would have allowed this to happen. An explanation was found, although I'll never know if this is the real reason. If the keyer speed control is bumped and set in the wrong direction, the keyer will lock up in an "on," or "key-down" condition when power is first applied to the transceiver. If this occurs, the dissipation rating is exceeded after a short period and the power amplifier goes "up in smoke." The PA was replaced, now with a bit of emitter degeneration, and the keyer circuitry modified to prevent this undesirable initial condition. But now I'll have to go out and do my own special FD, even without the rest of the country. (I could wait for a year, but don't think that will happen!)

It was only 2 PM Saturday afternoon by the time I had discovered my plight. I had no technical solution available in the field, leaving me to weigh my options. I could hike out, drive home, fix the transceiver, and go out again on Sunday morning for some enjoyable operating, but close to home. That would be fun, but not really Field Day. Instead, I elected to stay out and enjoy both the solitude and the unusually clear views. But there were few views available at the deep woods location, so I removed the antenna, returned all of the radio gear to the protective stuff sacks, reloaded the pack, and headed back for Lookout Mtn. By now I was in the full heat of the afternoon and it was an uncomfortably warm climb back up a rather steep ridge trail and across the snow and on to the summit. I deposited my gear in what looked like a good camping spot on a ridge not far from the summit and allowed the adventure to change into a summit camping experience rather than a traditional Field Day.

All turned out great thought. I certainly learned something from the experience. This is the first major field equipment failure I've encountered, but it was not a total loss. And the reward was still to come: The sunset that night was among the best I've ever seen in about 50 years of mountain ramblings. And there is always next year for FD!

