

# QRP POWER

## Appalachian Award Fever

Last month Paul Stroud, AA4XX, shared with us his QRP kayaking adventure to the Cape Lookout lighthouse to work one of the Adventure Radio Society's Spartan Sprints. It seems that over the last couple of years QRPers are taking to the bush in record numbers to operate and contest under primitive conditions. QRP lends itself to this type of "Extreme Radio." The rigs are tiny and very battery friendly. Simple antennas are the order of the day. What could be better than a walk in the woods and a little QRP operating? With this in mind, let me tell you about...



Ed Breneiser, WA3WSJ, operating from the Appalachian Trail in October 2000 with his K2 transceiver.

### Hams on the "AT"

Since the Appalachian Trail winds 2100 miles through 14 states from Maine to Georgia (Pennsylvania being one of them), Ron Polityka, WB3AAL, El Presidente of the EPA-QRP-Club, thought it would be a great idea for the club to sponsor a series of awards for working stations on the Trail. The idea caught on like wildfire. Soon there were several awards offered with the criteria explained in detail on the EPA-QRP-Club Web page: [www.n3epa.org/at/at.htm](http://www.n3epa.org/at/at.htm). To keep up with the surge of interest, Ron started a reflector especially for the Appalachian Trail awards: [atrail@lehigh.edu](mailto:atrail@lehigh.edu). Here, QRPers can list the dates, times, location and frequencies when they would be on the trail and operating.

Ken Newman, N2CQ, Craig LaBarge, WB3CGK, Ed Breneiser, WA3WSJ, Ron Polityka, WB3AAL, Brian Riley, N1BQ, Frank Flynn, KM1Z and others (myself included) took to the Appalachian Trail to "light it up" for those who wanted to qualify for one of the awards. Participation exceeded Ron's wildest expectations! Here was a series of awards that people *really* wanted.

### A-Trail Packing List

What does it take to operate from the A-Trail? A QRP rig helps! Although, Ron, WB3AAL, often takes his TS-50 and a deep cycle battery into the woods for Trail operations, the rest of us mere mortals use a cross section of monoband QRP kit rigs (NorCal-40A, SW-40+, OHR, etc) while Ed, WA3WSJ, takes his K2. With the new Elecraft K1s now on the market, it won't be long before many A-Trail QRPers start using these little dual banders.

Antennas are of the wire variety for several reasons. First is portability. Wire antennas can be made very small and extremely lightweight. When you backpack any distance, it quickly becomes apparent that every *ounce* in your pack weighs you down.

Dipoles are the favored wire design. I have used N2CQ's Gusher antennas with good results. Ed, WA3WSJ, makes his own using some #26 copper coated steel wire with black insulation, called "Stealth Wire" (available from Davis RF<sup>1</sup>) at about \$.14/foot. This stuff is unbelievably strong, extremely light and practically invisible from more than a couple of feet away. Ed's design consists of a set of 40-meter elements (33.5 ft/each) fed with thin 300-Ω twinlead available from your local RadioShack store. Ed used this antenna when we went out on the A-Trail in early October with fantastic results. His K2 autotuner matched all HF bands except 17 meters. How do we know that this antenna works so well? Ed worked 40 meters exclusively on this trip and generated a pile up on 7040 kHz so large he couldn't take time out to go to the bathroom! Not bad for a dipole erected only 15 feet off the ground!

This brings up the next problem: how to get the antenna into the air. Most QRPers use some sort of "anti-gravity device" such as a slingshot with fishing reel attached, bow and arrow, fishing rod and reel, or the old standby: a 1-inch-deep well socket tied to a piece of nylon parachute cord! Since the trees are quite dense in most places on the A-Trail, using a slingshot or bow and arrow to try to get

the antenna high into the trees is counterproductive. In the case of the Trail, lower is better. By erecting the center of the dipole only 15 to 20 feet off the ground, it is much easier to extend the dipole legs to their full length.

Ed begins his antenna raising with a roll of 30-lb test nylon fishing line. First he peels off about 40-50 feet of fishing line and lays it out on the ground. Then he secures the remainder of the line on the reel with a rubber band. Using an underhand tossing method, Ed lofts the reel over a nearby branch, usually about 15-20 feet off the ground. Then he secures the center of the dipole to the free end of the fishing line and pulls the antenna into the trees.

Power for A-Trail QRP rigs is normally provided by gel-cell batteries. Although some rigs run just fine (at reduced power) on a 12 to 15-V AAA alkaline battery pack, the preferred power source is a 6-A/h gel-cell, which will power the average QRP rig for an entire weekend without recharging. Several Trail QRPers also take along a 10-W solar panel to recharge the batteries while on the go.

Some nice Trail accessories include a portable paddle set (try TE-NE-KEY<sup>2</sup> or Whiterook<sup>3</sup> for inexpensive portable paddles), a night light (red LED flashlights work fine and keep the bugs away), a small note pad, and a palm-top computer for logging. Remember, *think light* when selecting accessories to carry along on the A-Trail. Radio gear is secondary to your normal camping gear, so you must pay close attention to bulk and weight when planning QRP operation in conjunction with a hike or multi-day outing on the Trail.

### Take Your Rig Outdoors

I hope this brief foray into Extreme Radio will spark your imagination enough to give it a try this camping season. There is a lot of fun to be had by combining outdoor activities and ham radio. Remember, when you trek into the bush, be a courteous hiker/camper. Remove all your trash and leave only footprints. The natural beauty of the great outdoors is there for all to enjoy. Let's keep it that way.

<sup>2</sup>TE-NE-KEY: [www.qsl.net/noarc/Te-Ne-KeyPage.htm](http://www.qsl.net/noarc/Te-Ne-KeyPage.htm)

<sup>3</sup>Whiterook Paddles: [electronicsusa.com/home.html](http://electronicsusa.com/home.html)

<sup>1</sup>Davis RF: [www.davisrf.com/ham1/flexweve.htm](http://www.davisrf.com/ham1/flexweve.htm)