Q R P I n T h e P a r k

During the first week of May the Kingsport Amateur Radio Club sponsored an exercise called “QRP in the Park”. The purpose of this activity was to expose operators to the challenges of low power, portable/semi-fixed operations. The desired goal was to introduce participates to the crucial considerations essential for success in this endeavor. Each of our participating club members become aware of the difficulties in areas of radio, power supply, and antenna deployment, often as “lessons learned” by hands on application. Those taking part in this venture were: Bob Warden (KU4R), Carl Hacker (WC5WM), Craig Walled (AC4M), David Gulley (KI4AAU), Erik McCord (WX4ET), John Williams (KJ4ZFK), Larry Dale (KD4FTN), Neil Weber (KM4NWH), Rick Johnson (WB4RLJ), and Tom Price (KI4CVU).

Okay, so what’s the big deal about operating portable and away from one’s home or office? What’s to be accomplished by carrying radios outdoors into the weather or taking a chance of breaking something? So what’s this all about and why the interest?

First of all we ought to define “QRP”. Simply stated it is the operation of our transceivers at a low power setting, typically at ten watts or less. Depending upon the mode, sometimes the transmission power is even less than a watt. Because our transmit power is at a minimum, operators need to learn how to maximize other variables to achieve successful QSOs. So this exercise, “QRP in the Park”, was meant to introduce techniques and methods which generally can be dependent upon to achieving low power operational success.

You may ask, “What is a QRP radio?” Some of our radios, which we may normally operate at 100 watts or more from our vehicles or base stations, can be reduced in output to settings as low as five watts. Other radios may have five watts as their maximum or only power out settings. And some of the home built kit radios may be rated at less than a watt! QRP operations occur when we use radios that transmit less than ten watts for Single Side Band (SSB) or five watts or less for data modes and mores code (CW). Yet the radio is only one aspect of the QRP blueprint.

How about the power supply? Power is what makes it all work – needed to bring the radio to life and in some cases to power up an antenna tuner. There are all kinds of power sources, e.g., solar panels, generators, nine volt batteries (as typically found in your home smoke detector), deep-cycle automobile battery, and Sealed Lead Acid or Lithium Ion or Lithium Iron Phosphate battery chemistries usually around twelve volts. The power supply selected is going to help determine how portable an operator may be; mobility decreases rapidly as power supply weight increases. Typically those who are looking for portability select power supplies of the newer light-weight batteries, such as Lithium Iron Phosphate batteries, or even solar panels. Additionally, an operator needs to select a power supply with a capacity that ensures sustainability for the period of time the operator wishes to be on the air. For example, a solar panel source is not going to be very reliable during periods of darkness, nor will a nine volt battery last very long for Single Side Band operations. Now consider, regardless how great the radio and its power supply is, a successful operation still needs the all important antenna.

A discussion of antenna types usually ends up in a squabble. There is not going to be an easy answer to this one. Seems everyone likes to rely upon their favorite home antenna, but an operator's favorite base station or vehicular antenna may not have a place when we are involved in QRP operations. For some, reconnecting their home antenna after moving a QRP operation into the back yard may work okay, but that is not the classic response for a call to QRP. Normally mobility and expediency is why we do QRP outdoors, so we need an antenna that supports those criteria. Typically, a QRP antenna is light-weight, strong, simply, easy to deploy, and multiple band capable. Now is not the time to try to run a 165 foot random wire antenna through the trees, nor try to suspend a multi-band fan dipole antenna thirty feet into the air. An end-fed half-wave multi-band antenna or a vertical antenna seems to be more appropriate most of the time. Yet, conditions dictate selection of antenna type; for example, a vertical antenna will not work on a mountaintop bald without trees from which to suspend it, but does work beautifully if the operator brought along a telescoping thirty foot mast. If one's antenna is resonant on multiple bands, then an antenna tuner is not required. An antenna which does not need a counterpoise is much simpler and easier to set up than having to string out multiple wires underneath the radiating

element. An antenna which is easy to configure and sets up rapidly as either a horizontal, vertical, inverted vee, or sloper is like gold to QRP deployments.

So there it is – the big three: radio, power source, and antenna. So what is the rest of the story? Consider the contents of the "accessories bag" as the single most over-looked items which often result in failure. These bits and pieces may include antenna lead in (coax) cable, antenna connectors, power cable, headset, microphone, CW key, paper and pen, watch or clock, and waterproof liner to keep it all dry and clean. And, of course, one needs a pack of some kind to transport all of these items along with the antenna, power supply, and radio.

Having held just one "QRP in the Park" achievement our club's leadership is hardly finished with a dedication for making resourceful, competent, and proficient QRP operators. It is going to take more than a single visit to the park. Consequently, there will be another gathering that will occur with all participates located at one venue, to share lessons learned and to demonstrate acquired QRP skills. And following later in the year our QRP operators may spread out to various parks in the area and attempt to operate a QRP net. Additionally, new material will be introduced during these ongoing activities, to include subjects such as band selection, use of electronic devices, and Near Vertical Incidence Sky wave (NVIS) antenna construction and deployment.

So, if you wish to learn about QRP operations, you need to let the club leadership know. There will soon be another gathering in a local park. We look forward to having you join us for some fun and an opportunity to learn.

Seventy-three's to all,
--John (KJ4ZFK).