

Winter Preparedness for Amateur Radio Ops.

Anthony Whobrey, KC4JTV

With winter approaching all too soon, now is the time to make sure your station's antenna is ready for Mother Nature's sometimes-severe conditions.

When checking your antenna system(s), pay close attention to outdoor feedline connections. Keep in mind that the more accessible connections will probably NOT be the ones that will fail in the midst of winter. Guy wires and anchors should also be inspected, including an important, but often overlooked point. Guy anchors tend to fail at a point 2 or 3 inches below the surface; a small spade can be used to take a look this area. If you are not able to climb your tower, use a pair of binoculars to look over the upper sections. This is obviously not ideal, but should give you some idea of the overall condition of your feedline and antenna. The feedline should be secured to the tower often enough to prevent whipping or swaying in the wind. Finally, check for tree limbs near the tower or down guys. Ice and snow will add substantial weight to even a small limb, making it a potential hazard to your antenna system.

Users of wire antennas, such as dipoles or loops, might be able to lower the antenna for a close inspection. Make sure that the feedline is properly strain relieved at the feedpoint; the fitting should not be used to support the weight of your coax cable. Antenna halyards <lines used to haul up and support the antenna> should be checked. The heat and UV rays of summer will weaken many of the commonly used ropes, often after only a year or two. The halyards will need to be strong enough to withstand the added weight of snow and ice, along with the winds of winter.

After the outdoor inspection, check the antenna's general performance (a good excuse for an hour or so of operation). Many antenna problems that are not externally visible will show up on your wattmeter. One notable exception to this statement is a wet coax cable, especially in applications on 144 MHz and higher. If your VHF station's performance has gradually deteriorated over the past few years, remove the connector from the lower end of your feed line. Cut off a couple of inches of the coax outer jacket; if the braid or dielectric shows any trace of moisture, consider replacing the feedline. Any amount of moisture in a coaxial cable will greatly increase its loss, in BOTH directions; so many times the reflected power at the transmitter may be low. Don't be disappointed when your new coax shows more reflected power, it will have greatly improved performance, since your transmitted (and received) signal will not be attenuated by water.

Your station is only as good as its antenna; don't let severe weather render your equipment useless, just when it may be needed to keep you informed or to assist others.