

October 11, 2020 WC-ARES Net Training: Checking your Coax

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If you are having problems with high SWR's or trouble with transmit or received, you have something wrong. Now, sometimes you have no idea, but you have to start somewhere, and checking your cables is the first place you can start. Shorts in coax or patch cables can be the issue and is sometimes the easiest to detect.

Get multi-meter, and set it to read Ohms. Red lead in Ohms jack and black lead in common jack. If your meter is a digital meter, the meter should read "Overload" or 0.L on the screen when you turn it on. If you have an analog meter, the needle should be reading at the infinity line. Check to make sure your meter works by touch the leads together. This should cause your digital meter to read "0", on the analog meter to move the needle to "0" which is the other end of the scale.

The first reading you want to take is with one end of the coax you are testing. Place one lead onto the outside of the PL259 (or BNC, depending) and the other lead to the pin in the center of the connector. There should be no movement in the meter. It should stay in the 0.L position. This means it is open or isolated from each other which is what you want. If there is movement in the meter, you should cut off the connector and solder another one. But remember you have two ends to a cable so check both.

Next, take your meter probes and touch them to the center pins on both ends of the cable. Again, there should be a number or movement in the meter you have. If there is no movement, either the connector or the cable is bad. You can cut off one end, peel back the center insulation and check the center pin of the remaining end to the center wire you have exposed. But remember if you have a problem with the center pins, it may not be the pins but a break somewhere in the cable itself. To determine that, you have to have special equipment and that is for another training night.

Finally, you want to place your meter probes in the outside of the PL259. Again, there should be movement or a reading on your meter. No movement means it is not good. And the connectors of the cable should be replaced.

While this may not help you trouble shooting your radio issues, it will take the one thing off the list without the need for an expensive antenna analyzer.

This concludes the training for tonight. Please hold me short time in regards to the remainder of the meeting. Back to net Control.