

We aim to construct long-distance wireless data links using frequencies in the range of 512MHz-608MHz and 614MHz-698MHz in order to investigate potential physical layer and medium access layer optimization techniques for TV whitespace links over longer distances. Equipment used will be Doodle Labs radios with directional antennas. There are very few long distance white space links in existence, thus, this line of research has not been thoroughly investigated. These links would lend themselves to wireless research grounded in real-world connectivity usage scenarios.