

Experimentation description

WD2XDW Existing 0054-ex-ml-2003, modification 0001-ex-ml-2006

1. Since the approval by the FCC OET of WD2XDW the station has been conducting experimentation as described in noted per 0054-ex-ml-2003, the intent is to continue the work and requirements as described in that submission and use that as the basis to continue as we have only moved physical location (again) of some miles.
2. We have however added some further experimentation in sky wave anomalous propagation delay, Ionospheric ray tracing and applying new concepts to existing theories on LF ground and sky wave propagation. The work as described in the antennae section of these applications has also promoted a lot of ongoing discussion and experimentation with small lambda loop arrays which when applied to environmentally lossy locations such as heavily wooded terrain perform much better than traditional monopole arrays. I would like to continue to develop long range propagation information by transmitting experimental data modes such as KK7KA's highly error corrected BPSK data system called WOLF, JASON, normal and differential frequency CW. Anomalous propagation from the very low ERP arrays has produced some stunning reception reports from WD2XDW to the South Island of New Zealand, and continuing transmissions from this station during varying Ionospheric and geomagnetic conditions is helping to paint a better truly Global picture of what happens in this unique part of the radio spectrum.

Signed

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