

Wind Turbine Emissions Survey – Benton County, Indiana

At the request of ARRL we observed emissions from Wind Turbines. On March 19, 2010, we visited three Wind Farms in Benton County, Indiana. In each case, we listened to sample wind turbines at close range using a Yaesu FT-817 transceiver and a 3-element Arrow Yagi tuned to 121.5 MHz and operating in USB (we did not have a 2-meter beam antenna with us for 144.2 MHz testing).

The first group of turbines measured produced a 15-kHz interval comb that was clearly discernable from 100m in USB. Two turbines were assessed from this group with the same result. In each case the S-meter did not register (e.g. S0). The comb was strongest when the turbine was facing the receiver, and weaker when facing away. This tends to indicate that the source is probably in the hub. The noise was inaudible using FM demodulation.



The second group appeared similar to the first with a different shape of the back of the nacelle. These turbines had no discernable noise at 100m.

The third group was very different in appearance. These turbines had no discernable noise at 150m (as close as we could get).



Based on our observations, we conclude that these wind turbines should not pose a wide-spread interference problem. Should harmful interference occur, it should be resolved on a case-by-case basis.



Jerry Ramie, KI6LGY
www.arctechnical.com

**Electrical
Interference
Solutions, Inc.**

Brian S. Cramer, W9RFI
www.EISolutions.com