

Neil Owen Klagge would like to experiment with antenna and transmitter design and testing on the range of frequencies of the proposed 630 meter band for amateur radio (i.e. 472-479 kHz) using a maximum of 1 watt ERP.

The goal is to show how it is possible to communicate via amateur radio from a small city lot on this band using a 43 foot vertical antenna with various methods of loading the vertical. Also, to demonstrate the effectiveness of various narrow band emission types that might be used on this band when it is implemented. Modes I desire to use are 150HA1A, 62H0J2B, 62H0F1B, and 62H0G1D all of which will be narrow band. The equipment will be experimental using both crystal controlled oscillators and variable frequency oscillators followed by buffer amplifiers and a final amplifier of 100 watts maximum output. The transmitter will be adequately filtered to comply with current FCC requirements with respect to harmonic radiation.

It is important to note that a significant number of experimental stations have been running much higher power than 1 watt ERP in this frequency range have been able to operate over the past several years without impact to primary users.

Respectfully submitted

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