

To Whom It May Concern:

I have requested an experimental license for frequency ranges in the 73 KHZ, 136 KHZ and 160 KHZ portions of the RF spectrum. I am wishing to conduct propagation studies of these frequencies and tests of absorption and reflection of these signals. I wish to conduct propagation studies over seasonal changes.

The equipment used will be a home built transmitter and commercial receiver capable of receive in these areas. The transmitter will be crystal controlled in a PNP oscillator and make the use of flipflops to perform the signal division to produce the desired output. The total ERP will not exceed 2 Watts, but the request for up to 200W drive is requested due to anticipated antenna inefficiencies.

I am an amateur radio operator and I am currently studying electrical engineering. These frequency ranges intrigue me due to the unusual propagation and challenges in producing a useful signal over distance.

Thank you for your consideration of my application.

Sincerely,

Jacob Noll