

Paul N Kelley would like to engage in design and testing of transmitters and antennas, as well as propagation study in the 135.7 – 137.8 kHz and 472 – 479 kHz frequency bands. The applicant, who would be owner, operator and chief engineer of the experimental station holds an Amateur Extra class license and has 35 years experience designing, building, and operating radio equipment. Sufficient test equipment is available to ensure clean emissions.

The station would operate primarily as a beacon using narrow bandwidth modes including aural and machine copy telegraphy by on off keying and data modes using frequency and phase shift keying.

Goals of this experiment would be:

- Evaluate and test methods for use of existing high frequency antennas and supports for the requested frequency bands
- Develop and evaluate low cost transmitters and class D amplifiers operating with suitable filters to produce clean emissions
- Engage in propagation study. The proposed station location is in an area significantly distant from current experimental stations engaged in propagation study. Receiving tests indicate the location may provide unique and useful data to augment other ongoing propagation studies in these frequency bands.

Results of the experimental work will be published. It is hoped this will be of value to others engaged in experimentation and to a possible amateur secondary allocation in these bands.

A number of experimental stations have current grants for more transmitter power and ERP in both frequency bands than is being sought by the applicant.

Respectfully Submitted,
Paul N. Kelley