

## **Exhibit 1**

This application seeks modification to the Station WJ2XTF license to increase ERP based on improvement to the antenna design which increases gain from 21 dBi to 28 dBi.

No other changes are requested to the technical parameters of the license, including the frequencies, emission designators, and maximum transmit power of 20W.

Despite the proposed increase in ERP, potential impact to co-channel operations is significantly mitigated due to the following factors:

- Testing will be limited to ground-based testing with the emitting antenna generally located no higher than 10 feet from the ground. The vast majority of emissions will be directed at other near-ground targets with the elevation of the main beam not exceeding +10 degrees elevation.
- The new, higher gain antenna has a narrow beamwidth of 4 to 6 degrees, which limits the illuminated area/volume.
- Outdoor testing will not be frequent. Test events will occur sporadically throughout the duration of this license with an expected frequency of no more than 1-2 days per month on average throughout the year. The longest duration of outdoor testing will not likely exceed more than one consecutive week and testing will generally occur only for a few hours up to a full typical work-day (9AM to 5PM).
- Outdoor testing will not be continuous. Emissions will be active for short durations no longer than 1 minute at a time (maximum) with an average on-time more on the order of 10-30 seconds. During a test emissions will be activated for these durations periodically with several minutes between emissions at a minimum, if not longer. Overall, during a full day of testing the expected total time spent emitting would be on the order of 30 to 60 minutes on average.