

11.16.17

To: OET EL
From: William Seiz, President
Final Mile Communications, Inc.
917-881-9848
Re: TV White Spaces experiment in Buckhannon, WV area

The proposed experiment will use the following TV Band Devices:

- one base station
- two client stations

Base station location at 1220 Old Elkins Rd., Buckhannon, WV 26201

All radios will utilize the existing FCC approved GWS4006-23 hardware. See [FCC filing](#).

This radio is approved for use with up to 25.5dBm EIRP over 6MHz.

We propose to modify this FCC approved radio to operate over 24MHz over four contiguous TVWS channels, as approved by the FCC TVWS Database - as opposed to the current one channel of 6MHz.

To maintain an equivalent EIRP per channel to the approved radio the experimental radio could operate with an EIRP of 31.5dBm.

However, we are requesting that the radio be allowed to operate at 30dBm of conducted power connected to directional Yagi antennas that have a gain of up to 12dBi i.e. a maximum of 42dBm EIRP over 24MHz.

Even with a maximum EIRP value of 42dBm (15.85W) over 24MHz this is less than the allowed 4W/6MHz channel for TV Whitespace devices.

The only hardware changes from the FCC approved unit are (i) the filters governing the width of the emission and (ii) the removal of a power limiter resistor.

Antenna heights will not exceed 30m HAAT, the current TV Whitespace limit.