

EXPERIMENTAL DESCRIPTION

The Morehead Police Department (“Department”) seeks temporary, experimental authority for the operation of a lightweight, tethered aerial vehicle transmitting data in the 4.9 GHz band, in support of public safety operations. The proposed experimental operations will evaluate the suitability of tethered vehicles operating in the 4.9 GHz spectrum for public safety and related uses. During the experiment, the system will be used to ensure crowd safety at Morehead’s July 1 Freedom Festival through July 4, and may be operated periodically on an intermittent basis for the remainder of the proposed six-month license term.

The aerial vehicle will not operate at heights in excess of 60 meters above terrain, and will not be capable of travelling beyond its tethered location. It will therefore, in effect, be operationally equivalent to a rapidly deployable, temporary fixed radio, which is permitted by the Department’s existing 4.9 GHz license.¹ Transmit power will be limited to 1W E.I.R.P. Given this limited power level, and the valley in which Morehead is situated, the Department anticipates that the experimental signal will not be detectable more than 1 km beyond downtown Morehead. A propagation map and 3D rendering of the local terrain are attached to this application.

¹ Universal Licensing System, Federal Communications Commission, Call Sign WQZI340, City of Morehead (May 24, 2017).