

Response to FCC Reference No. 81716

The requested modification is to add one new location centered on Georgetown, DE, to be used for flight tests for development and test work underway at the fixed location in Linthicum, MD, already authorized by WJ2XDZ. The work at both locations is for the purpose of developing and testing an improved radar system by modifying an existing generation radar system (including the AESA antenna, radar receiver, and exciter) and integrating it with frequency agile waveforms. The end goal is to achieve and demonstrate operational performance over a wide band of frequencies. When developed, the intended customers are U.S. Government agencies.

- The radar will be frequency agile with center frequencies spanning 8520 MHz to 8980 MHz and 9220 MHz to 9980 MHz. Transmissions will be channelized based on 20 megahertz separations. Wideband waveforms will restrict center frequencies so that emissions are contained within the authorized bands of operation.
- The waveform will utilize pulse widths of 1.5 μ sec to 110 μ sec. PRFs will be from 500 to 125,000 Hz. Barker Phase Code and Linear FM will be employed. The Active Electronically Scanned Array (AESA) has 35.0 dBi of gain. The beam width of the antenna is 2.8 degrees horizontal and 5.0 degrees vertical at the 3 dB points and will utilize vertical polarization. The antenna will be fixed at the given location with the main beam centered on an azimuth of 230 degrees relative to true north and scan limits of +/- 40 degrees.

Stop buzzer continues to be Sarah Girardi at 410-993-7017.