



FirstNet Band 14 CW Coverage Test 375 Pearl Street, New York, NY

Shayna Allen – RF Engineer
Sean Haynberg – Director of RF Technologies

December 3, 2015

Band 14 CW Coverage Test in NYC

- Continuous Wave (CW) Coverage Test in Band 14:
 - A CW coverage test is planned on Dec. 8, 2015 between 9 am to 5 pm. This will demonstrate coverage using Firstnet's Band 14 spectrum in NYC. The CW signal generator will transmit at an output power of 8 Watts into a 3 dBd gain antenna for an effective radiated power (ERP) of 16 watts.
 - The antenna will be located on the 13th floor, adjacent to a window on the northwest side of the building, which is located at 375 Pearl Street, NY, NY. The antenna center-line is approximately 195 ft AGL. This location is at Latitude: 40.711277, Longitude: -74.001225.
- Engineering Analysis of CW signal propagation range
 - This analysis shows the range of the CW test signal to the received field strength of 40 dBuV/m, which is equal to the received signal level of -95 dBm. This shows the area and range of the radiated CW test signal.
 - The field strength of 40 dBuV/m is referenced from FCC § 27.55(a) regulations for permissible field strength limits at the geographic border for 700MHz band licensees.
 - This analysis demonstrates the CW test signal will not extend into NJ, and will be entirely contained within the trial area in downtown NYC.
 - Therefore, this CW test will not pose any risk nor have any impact on Band 14 operations in NJ, or any other area outside the trial area in NYC.

FirstNet Band 14 - CW Coverage Test

Site Location: 375 Pearl Street, NYC

