

Ericsson

Exhibit to STA Application, File No. 0666-EX-ST-2016

Date Filed: 5/3/2016

Ericsson submits this application for Special Temporary Authority to conduct a 5G demo for a customer June 8-14, 2016, at Lincoln Financial Stadium in Philadelphia, Pennsylvania.

The demos will not be running nonstop during that time. We plan to conduct them on the 9th, 11th, and possibly the 14th during the pre- and post-shows surrounding the COPA soccer finals. (The game times are: June 9, 7:30 pm ET; June 11, 7pm ET; June 14, 8pm ET.) This will mean approximately 4 hours of operation before the game and approximately 2 hours after. Should the customer need to see the demo outside of these hours, however, we would like the flexibility to accommodate them, so we include the full date span in our request.

The demo will use spectrum and antenna parameters that the Commission has granted authorization for Ericsson to use previously.¹ However, the demo will use less equipment, have a much shorter radius of operation and be at a lower power. We will use only one experimental 5G base station and one piece of experimental 5G mobile user equipment. We will be aiming to keep the base station and mobile unit within 50 feet of each other. (We have included a larger radius of operation of 0.1 km on the application in case we must go a bit farther than 50 feet.) Finally, the maximum EIRP will be 35 dBm. (Note that output power listed on the application reflects EIRP, not ERP.)

As set out below, the antenna will have a [REDACTED]. Because of the [REDACTED] of the antenna, the lower power and the limited radius of operation, the experiment will not interfere with existing users. Out of an abundance of caution for the government systems in the requested band, we are nonetheless providing a 24 hour emergency contact to turn off any transmissions should interference be detected. The contact information is: Keith Shank, 214-679-4362.

Ericsson continues to request authorization to transmit on 14.5-15.35 GHz only because the experimental equipment we will be using was designed in Sweden to operate on this spectrum.²

¹ See, e.g., File No. 0801-EX-PL-2015.

² See File No. 0765-EX-PL-2014.

Directional Antenna Information

The base station antenna parameters will be:

- Polarization: [REDACTED]
- Horizontal HPBW: [REDACTED]
- Vertical HPBW: [REDACTED]
- Antenna gain: [REDACTED]
- EIRP: ≤ 35 dBm
- Electrical tilt: [REDACTED]
- Mechanical tilt: [REDACTED]

Diagram for the V-pol antenna elements: azimuth



Diagram for the V-pol antenna elements: elevation.

