

EXHIBIT 1

PROGRAM OF RESEARCH AND EXPERIMENTATION

Cellco Partnership d/b/a Verizon Wireless (“Verizon Wireless”) hereby requests an experimental short term authorization (“STA”) to use the 3.7 – 3.9 GHz band in portions of PEA394 Martin, SD. Verizon Wireless plans to use this STA to co-develop different mobile devices with OEM partners. The 200 MHz sought under this STA is a subset of the recently auctioned flexible use C-Band at 3.7 to 3.98 GHz and ultimately will be part of Verizon Wireless’ post clearing assignments. Verizon Wireless’s request is temporary, expiring nine months from grant.

This location is included in Verizon Wireless’s existing experimental license WL2XQH. Verizon Wireless now seeks to add additional horizontal transmitter orientations and an additional antenna height, and expand testing at the original height and orientations from 100 MHz to 200 MHz. The horizontal orientations will be tested in various combinations of no more than three at a time at either height.

Testing under the STA will occur both outdoors and indoors, and all transmissions will be controlled at the locations provided in the application. The fixed base stations and mobile terminals will employ directional, beamforming antennas and will have a maximum antenna elevation as described in the application. The base station antenna has a half-power beam width of approximately 30° vertically and 120 ° horizontally. The equipment will be mounted using different orientations to avoid Earth Station interference compared to the orientations used today. This location will be tested at the highest available transmit power. This site and orientations were specifically selected due to their extreme distance to the nearest Earth Station to perform this specific testing.

Additional technical parameters are specified in the accompanying Form 442. The following table provides detail with the orientation of antennas where multiple values cannot be entered into the Form 442.

Site	Horizontal orientation of antennas (in degrees)
Jackson, SD – 122.5m	Original orientations from WL2XQH to extend bandwidth from 100 to 200 MHz: 100, 140, 260, 300 All new orientations: 0, 5, 10, 15, 20, 25, 30, 40, 50, 60, 110, 120, 180, 220, 270, 280, 290, 310, 320, 330, 340, 345, 350, 355
Jackson, SD – 64m	All new orientations: 0, 30, 60, 90, 100, 105, 110, 115, 120, 125, 130, 140, 260, 270, 280, 290, 300, 340, 350

Verizon Wireless has identified the nearest Earth Stations and will coordinate operations under the STA with those Earth Station licensees to avoid any potential disruptions to their operations. Verizon has strategically selected test locations that will not interfere with existing Earth Stations. If those licensees do experience interference, Verizon Wireless will cease interfering operations. In addition, while Verizon Wireless expects this testing will end once the Earth Stations have successfully cleared Phase 1 (100 MHz of the A-Block), Verizon Wireless will cease operations in the areas which are part of the A-Block clearing phase upon notice by a new licensee that they plan to initiate operations in the relevant area.