

## **EXHIBIT 1**

### **PROGRAM OF RESEARCH AND EXPERIMENTATION**

Pursuant to Section 5.61 of the FCC's rules, 47 C.F.R. § 5.61, Cellco Partnership d/b/a Verizon Wireless ("Verizon") requests an 18-month experimental license for conventional experimental operations to test prototype equipment in the 28 GHz band.

Description and Purpose of STA Operations: Verizon requires an STA to test prototype devices operating at 27.5 – 28.5 GHz. The proposed STA operations will advance an understanding of the characteristics of millimeter wave spectrum (specifically in the 28 GHz band), channel bandwidths, and uplink/downlink ratios for residential and commercial deployments. Testing will occur periodically within 1 km radius areas around Verizon office locations in Euless, Texas. Verizon holds licenses for portions of the frequencies to be tested, but tests will span portions of the band for which Verizon does not hold licenses already. Verizon will coordinate with authorized earth stations within a 25-mile radius area and fixed microwave systems in the 27.5 – 28.5 GHz band prior to testing, and will take immediate steps to resolve any interference issues that might arise during testing.

Directional Antennas: The devices to be tested will employ directional, beamforming antennas, and their orientation in the horizontal and vertical planes will vary. Additional details regarding the proposed STA operations, including equipment manufacturers, test locations, and technical parameters, are specified in the accompanying STA Form.