

**Wireless Everywhere LLC d/b/a Wave Wireless
Application for Experimental Special Temporary Authorization (“STA”):
Citizens Broadband Radio Device (“CBSD”) Testing and Demonstrations**

Pursuant to Sections 5.54(a)(1) and 5.61 of the rules of the Federal Communication Commission (the “Commission”),¹ Wireless Everywhere LLC d/b/a Wave Wireless (“Wave Wireless”) respectfully requests experimental special temporary authorization (“STA”) for a period of six (6) months from August 15, 2018 to February 15, 2019, which mirrors the current STA term of Wave Wireless’ existing experimental special temporary authorization (“STA”) for identical operations.²

Currently, the *Wave Wireless STA* authorizes Wave Wireless to test and trial equipment and services in Citizens Broadband Radio Service (“CBRS”) spectrum from 3650-3700 MHz at two (2) indoor locations in Washington, DC. Wave Wireless continues to successfully assess and validate the technical and commercial viability of certain Citizen Broadband Radio Service Devices (“CBSDs”) in the 3650-3700 MHz band at Station Location 1³ and Station Location 2.⁴ In order to maximize its trial activities in anticipation of CBRS commercialization, Wave Wireless seeks this STA to permit similar indoor trial activities at a new location in Washington, DC (geographical coordinates: 38°52’ 36.9” N, 77°00’23.3” W).

The new station location will permit testing and demonstrations at a state-of-the-art building in Washington, DC that supports key enterprise clientele and future commercial deployment opportunities. Grant of this STA will serve the public interest by allowing Wave Wireless and its partners to validate opportunities made available by CBRS spectrum sharing framework in real-world conditions using CBRS-compatible equipment. The new station location will further demonstrate the capabilities of this innovative new spectrum sharing framework and promote practical implementation of CBRS spectrum.

Aside from the new station location, the information provided herein (including the antenna operating parameters) is identical to information provided in support of the *Wave Wireless STA*. Wave Wireless will continue to adhere to the terms and conditions of the *Wave Wireless STA* and operate in compliance with the existing approved CBSD operating parameters. Moreover, Wave Wireless will continue to conduct testing in highly controlled field environments at power limits and out-of-band emission limits that comply with the Part 96 rules for Category A CBSDs and End User Devices.⁵

¹ 47 C.F.R. §§ 5.54(a)(1) & 5.61.

² See Wireless Everywhere LLC d/b/a Wave Wireless, File No. 1249-EX-ST-2018, Call Sign WM9XHE (expires on February 15, 2019) (“*Wave Wireless STA*”).

³ *Id.* (geographic coordinates: 38°54’ 0.03” N, 77°01’54.0” W).

⁴ *Id.* (geographic coordinates: 38°54’ 57.0” N, 77°02’46.0” W).

⁵ See generally *Amendment of the Commission’s Rules with Regard to Commercial Operations in*

In anticipation of the Commission's final CBRS rulemaking, authorization to test at the new station location is critical to allow Wave Wireless to further demonstrate the commercial opportunities associated with CBRS. At the conclusion of the experimental STA term, Wave Wireless will either transition to Part 96 GAA if the equipment is certified and authorized under GAA rules, or will cease operations in 3650-3700 MHz band.

Wave Wireless has reviewed the status of incumbent operations in the 3650-3700 MHz band⁶ and has concluded that its indoor low-power trial operations will comply with existing limits.

- For operations in the 3650-3700 MHz band, consent from commercial Fixed-Satellite Service earth stations is not required because the test operations will not exceed the power levels for mobile and portable stations set out in Section 90.1321(c).
- Wave Wireless understands that its operations are secondary to any authorized Part 90 commercial operations in the 3650-3700 MHz band and will operate its trials on a non-interference basis to primary terrestrial operations in the band.

Given the low EIRP levels of the CBSDs and the enclosed trial environments, Wave Wireless anticipates no harmful interference to existing incumbent users operating in the 3650-3700 GHz band. As discussed, Wave Wireless has full access to the transmit locations and has personnel nearby to monitor construction and operation to ensure that there will be no harmful interference to incumbent users and to remedy harmful interference in the unlikely event it occurs. In any event, Wave Wireless agrees to accept interference from incumbent users and will immediately terminate its operations in the event it receives reports documenting harmful interference to other authorized spectrum users in the band. During the STA, requests to cease transmissions during the license term should be directed to: imranh@wavewireless.co.

In accordance with Section 5.63(c)(1), Wave Wireless anticipates that its market trial will contribute greatly to the radio art and serve the public interest. The proposed operations at the new station location will help demonstrate the capabilities of this innovative new spectrum sharing framework and promote real-world implementation of CBRS spectrum.

Based on the foregoing, Wave Wireless respectfully requests a 6-month experimental STA for the period from August 15, 2018 to February 15, 2019 to demonstrate and trial equipment in CBRS spectrum from 3650-3700 MHz at the new station location.

the 3550–3650 MHz Band, Report and Order and Second Further Notice of Proposed Rulemaking, GN Docket No. 12-354, ¶ 73 (2015) (“*CBRS Order*”); 47 C.F.R. § 96.41.

⁶ Incumbent users include federal entities authorized to operate on a primary basis in accordance with the table of frequency allocations, fixed satellite service operator, or Grandfathered Wireless Broadband Licensee authorized to operate on a primary basis on frequencies designated. See 47 C.F.R. § 96.3.