

T-Mobile License, LLC
Application for Experimental Authorization
Special Temporary Authority

DESCRIPTION OF REQUEST

By the associated application, and pursuant to Section 5.54 of the FCC's rules,^{1/} T-Mobile License, LLC requests special temporary authority ("STA") from May 2, 2022 to October 29, 2022 for its affiliate, T-Mobile USA, Inc. ("T-Mobile"), to operate on spectrum in the 3.45-3.55 GHz ("3.45 GHz") band in and around the Dallas, TX, Kansas City, MO, New York City, NY, and Seattle, WA areas. Grant of the STA will permit T-Mobile to test, in cooperation with equipment manufacturers, use of the 3.45 GHz band in advance of its providing service to the public in the band.

A. Purpose of Operation and Need for Experimental License

T-Mobile was a successful bidder in the recently concluded 3.45 GHz band auction.^{2/} T-Mobile submitted more than \$2.89 billion in gross bids and was the winning bidder of 199 licenses covering 79 Partial Economic Areas ("PEAs").^{3/} While the Wireless Telecommunications Bureau has accepted T-Mobile's long-form application for filing,^{4/} it has not yet processed T-Mobile's application or other long-form applications for 3.45 GHz licenses. T-Mobile therefore expects that it will be several months before it and others obtain licenses for the spectrum won. T-Mobile wishes to make productive use of the spectrum it won as soon as possible after it receives its licenses.^{5/} It also wishes to evaluate new technologies across wider bandwidths in densely populated markets, which will provide T-Mobile with valuable operational data prior to introducing service.^{6/} T-Mobile therefore requests an STA to use a total of 40 megahertz^{7/} of 3.45 GHz band spectrum in each of the PEAs below both to generally assess the use of facilities in the band and particularly how networks incorporating the maximum amount of contiguous 3.45 GHz spectrum permitted by the Commission's rules in densely

^{1/} See 47 C.F.R. § 5.54; see also *id.* § 5.61.

^{2/} See *Auction of Flexible-Use Service Licenses in the 3.45-3.55 GHz Band Closes, Winning Bidders Announced for Auction 110*, Public Notice, DA 22-39 (rel. Jan. 14, 2022).

^{3/} See *id.* at Attachment A.

^{4/} See *Wireless Telecommunications Bureau Announces that Applications for Auction 110 Licenses are Accepted for Filing*, Public Notice, DA 22-177, Attachment A (rel. Feb. 23, 2022).

^{5/} While T-Mobile was not a winning bidder of 3.45 GHz band spectrum in one of the markets for which it requests an STA – Seattle, WA – PEA016, it seeks an STA for that market because its headquarters and testing lab are located in that area. In addition, granting the requested experimental authority would permit T-Mobile to evaluate the use of new technologies using 3.45 GHz spectrum in the Seattle, WA, market if T-Mobile decides to acquire spectrum in the secondary market there in the future.

^{6/} T-Mobile was a winning bidder of 40 megahertz of 3.45 GHz band spectrum in several PEAs and may wish to acquire 40 megahertz of contiguous spectrum in others.

^{7/} See *Facilitating Shared Use in the 3100-3550 MHz Band*, Second Report and Order, Order on Reconsideration, and Order of Proposed Modification, 36 FCC Rcd 5987, ¶ 102 (2021) ("3.45 GHz Second Report and Order") (adopting a spectrum aggregation limit of 40 megahertz).

populated markets can be optimized. That, in turn, will accelerate T-Mobile's ability to provide innovative services using 3.45 GHz spectrum in the future.

The charts below show for each of the PEAs in which T-Mobile seeks an STA the 3.45 GHz spectrum blocks it is requesting.

Dallas, TX – PEA008

Frequency Blocks	Winning Bidders
A Block: 3.45-3.46 GHz	T-Mobile
B Block: 3.46-3.47 GHz	T-Mobile
C Block: 3.47-3.48 GHz	Whitewater Wireless II, L.P.
D Block: 3.48-3.49 GHz	AT&T

Kansas City, MO – PEA030

Frequency Blocks	Winning Bidders
A Block: 3.45-3.46 GHz	T-Mobile
B Block: 3.46-3.47 GHz	T-Mobile
C Block: 3.47-3.48 GHz	AT&T
D Block: 3.48-3.49 GHz	AT&T

New York, NY – PEA001

Frequency Blocks	Winning Bidders
E Block: 3.49-3.50 GHz	Three Forty-Five Spectrum, LLC (Columbia Capital)
F Block: 3.50-3.51 GHz	Three Forty-Five Spectrum, LLC (Columbia Capital)
G Block: 3.51-3.52 GHz	T-Mobile
H Block: 3.52-3.53 GHz	T-Mobile

Seattle, WA – PEA016

Frequency Blocks	Winning Bidders
A Block: 3.45-3.46 GHz	Three Forty-Five Spectrum, LLC (Columbia Capital)
B Block: 3.46-3.47 GHz	Three Forty-Five Spectrum, LLC (Columbia Capital)
C Block: 3.47-3.48 GHz	Whitewater Wireless II, L.P.
D Block: 3.48-3.49 GHz	AT&T

T-Mobile does not anticipate use of the spectrum by other terrestrial wireless service providers during the period covered by the STA.

B. Restrictions on Operation

T-Mobile’s operations pursuant to the STA will be limited in time and geographic scope. As the attached application indicates, T-Mobile proposes to transmit using base stations at each site in each market and approximately 15 handsets operating within 5 kilometers (or 12.4 miles) of the base stations. T-Mobile will actively work with its equipment manufacturers during the STA period to test the equipment. T-Mobile will also conduct its operations consistent with the Commission’s equipment marketing and importation rules.^{8/}

C. Protection Against Causing Interference

T-Mobile’s proposed experimental operations will not affect federal operations in any geographic area in or around Dallas, TX, Kansas City, MO, or New York City, NY specifically identified as a Cooperative Planning Area (“CPA”) or Periodic Use Areas (“PUA”) – where federal users will remain in the 3.45 GHz band and non-federal users will not be protected against harmful interference.^{9/} While T-Mobile’s proposed STA operations in Seattle, WA, will overlap with the Bremerton, WA, CPA and PUA, they will not impact the specific *census tracts* within the Bremerton, WA, CPA or PUA where the Department of Defense (“DoD”) has indicated its operations will occur and for which the Commission has indicated requires protection.^{10/}

T-Mobile’s proposed experimental operations will overlap with certain facilities used for aerospace and defense testing. Specifically, T-Mobile’s proposed experimental operations will occur within 50 kilometers of facilities used by Raytheon for aerospace and defense testing in Dallas, TX and within 50 kilometers of facilities used by Boeing for aerospace and defense testing in Seattle, WA. The Commission has stated that only Federally Authorized Contractor Test (“FACT”) facilities that operate within a CPA or PUA are afforded protections.^{11/} And they

^{8/} See 47 C.F.R. § 2.803. The Commission recently revised its equipment marketing and importation rules, but those rules are not yet effective. See *Allowing Earlier Equipment Marketing and Importation Opportunities*, Report and Order, FCC 21-72 (rel. June 17, 2021). If those rules become effective prior to the preliminary testing in March, T-Mobile will comply with the new requirements.

^{9/} See *The Federal Communications Commission and the National Telecommunications and Information Administration: Coordination Procedures in the 3.45-3.55 GHz Band*, Public Notice, 36 FCC Rcd 9225, Appendix A (2021).

^{10/} See *id.* at 11 (explaining that the DoD will provide a “Workbook” about its operations and coordination expectations and that “[t]he Workbook will be in the form of an Excel spreadsheet containing additional information about where the DoD anticipates its operations will encumber *census tracts* inside of the Cooperative Planning Areas and Periodic Use Areas based on frequency block and commercial tower height”) (*emphasis added*); *3.45 GHz Auction Workshop*, DoD, at 31 (July 12, 2021), https://www.ntia.gov/files/ntia/publications/dod_3.45_ghz_workshop.pdf (highlighting that “[o]nly census tracts containing encumbrances are listed” and that “[t]otal encumbrances (ie CPA/PUA overlays) provided for each census tract”); NTIA, *Transition Plans and Transition Data for the 3450-3550 MHz Band*, <https://www.ntia.doc.gov/other-publication/2021/transition-plans-and-transition-data-3450-3550-mhz-band> (last visited Mar. 31, 2022) (including a link to DoD’s Workbook).

^{11/} See *3.45 GHz Second Report and Order* ¶ 32; see also *id.* ¶ 24 (declining to “extend coordination obligations on commercial licensees for existing or future non-federal radiolocation operations authorized

are only entitled to the same protections as other federal operations within CPAs or PUAs – meaning FACTs are only protected in the census tracts within the CPAs and PUAs that have been identified by DoD.^{12/}

Accordingly, T-Mobile is only required to protect Boeing’s facilities in Dallas, TX, to the extent they overlap with a CPA or PUA. But, as noted above, T-Mobile’s proposed experimental operations will not affect any CPA or PUA in or around Dallas, TX. Raytheon’s operations are contained within the Bremerton, WA, CPA and PUA, which means its facilities are entitled to protection in that CPA and PUA. But T-Mobile is only required to protect the census tracts within the Bremerton, WA, CPA and PUA identified by DoD. As noted above, T-Mobile’s proposed operations will not impact the census tracts identified by DoD in the Bremerton, WA, CPA or PUA. Therefore, T-Mobile is not required to protect Raytheon’s operations to the extent they are located in the Bremerton, WA, CPA or PUA, but extend beyond the census tracts identified by DoD.

As noted above, to the extent other entities are authorized to use the spectrum and could receive potential interference from the proposed operations, T-Mobile will coordinate its spectrum use to remediate interference and, if necessary, terminate operations on any affected spectrum.

T-Mobile has established a point of contact identified below with “kill switch” authority should any interference occur to primary licensed or otherwise protected services:

Chris Wieczorek
T-Mobile USA, Inc.
601 Pennsylvania Ave., NW
Washington, DC 20004
202-654-5913
chris.wieczorek@t-mobile.com

Finally, T-Mobile agrees that grant of its STA request will provide it with no additional rights to permanently operate on the spectrum covered by the STA. Indeed, because T-Mobile is already a winning bidder for 3.45 GHz band spectrum and expects to receive its licenses soon, no reliance interest will be created by grant of this request

Should there be any questions regarding this application, the Commission is asked to contact Mr. Wieczorek.

under part 5 of the rules regardless of whether they are located either inside or outside of Cooperative Planning Areas or Periodic Use Areas”).

^{12/} See *id.* ¶ 32.