

**T-Mobile USA, Inc.  
Request for Part 5 Experimental  
Special Temporary Authority  
ELS File No. 1430-EX-ST-2017**

**NARRATIVE STATEMENT**

Pursuant to Sections 5.3 (j) and Section 5.61 of the Commission’s rules, 47 C.F.R. §§ 5.3(j), 5.61 (2016), T-Mobile USA, Inc. (“T-Mobile”) hereby respectfully requests experimental special temporary authority (“STA”) from October 30, 2017, to April 30, 2018 to evaluate the technical performance of pre-commercial LTE Advanced equipment. The experiments will operate in AWS-3 spectrum that is held by the Commission as well as utilizing PCS and AWS spectrum licensed to T-Mobile in the market. The testing will be in a highly controlled field environment that will help T-Mobile to allow the pre-commercial testing of new products outside of a lab environment but in a controlled and managed manner.

**A. Purpose of Operation and Need for STA:**

T-Mobile is working with equipment vendors to conduct product testing of new LTE Advanced equipment. The trials at the location listed below will allow T-Mobile to test prototype equipment in outdoor and indoor setting prior to equipment certification. The trials will consist of a base station that will use the transmission parameters detailed below in Section C. Mobile units will operate within 15 kilometers of the base station. T-Mobile anticipates using as many as 36 mobile units at each location.

**B. Location of Proposed Operation:**

T-Mobile intends to conduct testing in the location specified below with the address and approximate reference coordinates (in Datum: NAD83) at these fixed locations:

<b>Address</b>	<b>Latitude</b>	<b>Longitude</b>
Augusta, GA	33° 28' 02.7"	81° 59' 1.2"
Augusta, GA	33° 18' 47"	81° 57' 54"
El Paso, TX	31° 48' 50.6"	106° 23' 39.4"

**C. Technical Specifications:**

**1. Frequencies Desired**

T-Mobile will be using the AWS-3 spectrum for the testing as well as PCS and AWS spectrum licensed to T-Mobile in the market. T-Mobile only seeks experimental authority for the AWS-3 spectrum that is not licensed to it in the Augusta or El Paso markets. Specifically, T-Mobile will be transmitting in accordance with the table below at each location:

Location	Device Type	Transmit Band (MHz)	Conducted TX Power (dBm)	Max Antenna Gain (dBi)	EIRP (dBm)	Emission Designator
El Paso	Base Station	2155-2160	30	6	36	5M0F7D
El Paso	Mobile	1755-1760	24	3	27	5M0F7D
Augusta	Base Station	2165-2165	30	6	36	5M0F7D
Augusta	Mobile	1765-1770	24	3	27	5M0F7D

**2. Equipment To Be Used**

T-Mobile will be using mobile devices that are certified and prototypes. The certified mobiles have the following FCC IDs: A3LSMG950U and A3LSMG955U. The base station transmitter for the Augusta market is a Nokia base station with the following FCC ID: VBNFRIJ-01. The base station transmitters in the El Paso market are Ericsson base stations with the following FCC IDs: TA8AKRC161418-1, TA8AKRC16160-1, and TA8AKRC161583-1.

**D. Protection Against Causing Interference:**

T-Mobile is requesting use of the AWS-3 spectrum band. T-Mobile will only operate in these locations in the AWS-3 spectrum that is held by the Commission in the Augusta market. T-Mobile understands that it must accept any interference from any users of this band and that all operations by T-Mobile will be on a secondary basis. T-Mobile has established a point of contact identified below with “kill switch” authority should any interference occur to primary licensed services. Should interference occur, T-Mobile will take immediate steps to resolve the interference, including, if necessary, arranging for the discontinuance of operation.

**E. Restrictions on Operation:**

T-Mobile is not seeking authority to perform a market study under the requested STA. Moreover, no fees will be charged to entities using the equipment during this test. Entities will be advised in accordance with Section 2.803 of the Commission’s rules, 47 C.F.R. §2.803, that any unapproved devices which have not been authorized as required by the FCC are not being offered for sale or lease, or sold or leased, until authorization is obtained.

**F. Public Interest:**

T-Mobile submits that issuance of the STA as requested is in the public interest, convenience, and necessity. Grant of an STA will help T-Mobile to develop and test innovative equipment to provide service to consumers.

**G. Contact Information:**

Technical Contact and “Stop Buzzer/Kill Switch:”

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