

**T-Mobile USA, Inc.
Request for Part 5 Experimental
Special Temporary Authority
ELS File No. 0551-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 May 12, 2017, to November 12, 2017 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 six kilometers of the base station. T-Mobile anticipates using as many as two mobile units at the 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 this fixed location:

| Address | Latitude | Longitude |
|----------------|-----------------|------------------|
| Augusta, GA | 33° 28' 02.7" | 81° 59' 1.2" |

C. Technical Specifications:

1. Frequencies Desired

T-Mobile will be using the AWS-3 I Block 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 I Block spectrum that is not licensed to it in the Augusta market. Specifically, T-Mobile will be transmitting in accordance with the table below:

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

2. Equipment To Be Used

T-Mobile will be using prototype equipment that has not yet received FCC certification for the mobile testing but will utilize a certified base station transmitter. The base station transmitter is a Nokia base station with the following FCC ID: VBNFRIJ-01.

D. Protection Against Causing Interference:

T-Mobile is requesting use of the AWS-3 spectrum band. T-Mobile will only operate in this single location in the AWS-3 I Block 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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