NARRATIVE STATEMENT

Pursuant to Section 5.3(e) and (g) and Section 5.61 of the Federal Communications Commission ("FCC") rules, 47 C.F.R. §§ 5.3(e), (g), 5.51 (2018), Motorola Solutions, Inc., respectfully seeks an experimental license to operate on two Citizens Broadband Radio Service ("CBRS") channels in the 3550-3700 MHz band so that it may continue specific customer requests to demonstrate prototype equipment at their locations in Illinois and Indiana that are outside the NTIA exclusion zones.

Grant of this application would serve to replace the existing special temporary authorization ("STA") issued to Motorola Solutions for experimentation granted under File No. 2158-EX-ST-2018, call sign WN9XXR. That STA allowed the company to conduct proof-of-concept testing and determine if additional testing would be beneficial to its efforts.

As provided under Section 5.61(c) of the Commission's rules, 47 C.F.R. § 5.61(c) (2019), this application is also intended to serve as a continuance or extension of the above-referenced STA pending action on this application. Motorola Solutions understands, however, that such continuance or extension applies only to the locations and channels as authorized and as conditioned under the STA and that the company must await action on this application for a regular license before it may operate in any manner proposed in this application that is at variance with the operations authorized or conditioned under the STA. The extension is necessary to allow the company to continue its tests pending Commission action on this application.

A. Purpose of Operation:

Motorola Solutions is a leading manufacturer of mobile radio equipment for the critical infrastructure and public safety community and is continually engaged in the design and development of new and innovative communications systems. The experimental authority requested herein will allow the company to (1) continue customer-specific evaluation of the functionality and reliability of base station and client systems under development, and (2) collect coverage, throughput, and other data needed by Motorola Solutions to determine the requirements of potential users that would operate within the CBRS allocation. Thus, Motorola Solutions submits that grant of an experimental license as requested is in the public interest, convenience, and necessity.

B. Locations of Proposed Operation:

A limited number of temporary fixed and portable would be operated within a radius of 5.0 kilometers of the test sites located at 4301 W. 73rd St., Anderson, IN 46011 (coordinates 40.038247 N; Latitude; 085.743082 W Longitude (in Datum: NAD83)) and 121 W Van Buren St, Woodstock, IL 60098 (coordinates 42.314248 N; 088.447731 W (in Datum: NAD83) as specified in the accompanying application.

C. Technical Specifications:

1. Frequencies Desired

Motorola Solutions requests authorization to operate within the CBRS allocation of 3550-3700 MHz utilizing 5, 10, and 20 MHz TDD channels with 5, 10, and 20 MHz of bandwidth in an LTE waveform, as specified in the accompanying application.

2. Effective Radiated Power

All power levels will comply with the limits set forth in the FCC's rules, including those relating to human exposure to radiation.

The temporary fixed base units will operate at +25 dBm transmitter power output ("TPO") utilizing antennas, during various phases of testing, exhibiting an +7 dBd omni-directional radiation pattern and +15 dBd utilizing a 60 degree sectorized antenna. The system will, therefore, be deployed and configured to operate with a mean effective radiated power ("ERP") of not more than 10 Watts (+40 dBm). The subscriber units will operate at a mean power level not to exceed 250 mW (+23 dBm) ERP. Motorola Solutions will reduce the actual powers to the minimum level needed for successful operation, based on set-up and testing at the site of the exercise.

3. Modulation and Emissions

Motorola Solutions proposes to operate using TDD OFDMA LTE modulation on the downlink and TDMA/TDD LTE modulation of the uplink. Uplink and downlink will operate on the same channel utilizing bandwidths of 5 MHz, 10 MHz, and 20 MHz. The representative emission designators are 5M00W7W, 10M0W7W, and 20M0W7W for the downlink period of operation upon the channel and 5M00WXW, 10M0WXW, and 20M0WXW for operation during the uplink period of the TDD LTE channel in use. Other emission modes may be utilized, but in no event will the emissions extend beyond the frequency bands requested.

Prior to operation, Motorola Solutions will determine the exact center frequency of operation utilizing spectrum scans at each location, use of the FCC database to determine the existence of prior licensed services, and the FCC database to determine if any licensed earth stations reside within the test area requested. Additional channel quality methods will also be utilized during each test activation.

4. Antenna Information

No antennas will be installed in a fashion that will require approval under FAA and FCC rules and regulations.

5. Equipment To Be Used

Motorola Solutions expects to conduct the demonstration by deploying up five base station units per channel outdoors and up to 20 base station units indoors at the Anderson, Indiana location and up to 2 base stations at the Woodstock, Illinois location. Motorola Solutions will also utilize up to 20 subscriber units per specified location. Moreover, it will limit the power, area of operation, and transmitting times to the minimum necessary to support an effective demonstration and collection of data.

D. Protection Against Interference:

Motorola Solutions understands that it must accept interference from any other users of these bands and that all operations by Motorola Solutions will be on a secondary basis and must not cause interference to operations approved to operate in the band. Motorola Solutions will also coordinate with and obtain required consent from existing licensees authorized in the band.

In addition, Motorola Solutions recognizes that multiple experimental authorizations might have been requested and granted for operation in the same area to other entities, that these entities must effectively coordinate their operations, and that failure to do so may result in immediate suspension of its experimental license. Motorola Solutions has established a point of contact ("POC") identified below with "kill switch" authority, and it agrees to cease operations immediately upon receipt of request to the kill switch POC.

Motorola Solutions does not expect the proposed operation to cause interference with any licensed operation. Should interference occur, however, Motorola Solutions will take immediate steps to resolve the interference, including if necessary arranging for the discontinuance of operation.

E. Restrictions on Operation:

Motorola Solutions is not seeking authority to perform a market study of unapproved devices under the requested experimental authorization. Moreover, the operation will not involve live-duty operations by first responders or others to protect life, property, or safety. In addition, no fees will be charged to entities using the equipment during this test. After the test is completed, Motorola Solutions will disassemble the test facilities.

Entities will be advised in accordance with Section 2.803 of the Commission's rules, 47 C.F.R. §2.803 (2018), 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 Statement:

Motorola Solutions submits that issuance of an experimental license as requested is in the public interest, convenience, and necessity. Grant of a license will help Motorola Solutions to support the development of innovative equipment that will accommodate the communications needs of potential users.

G. Contact Information:

Technical Point of Contact ("POC") and "Stop Buzzer/Kill Switch:"

Gregory Buchwald
DMTS Engineer
Motorola Solutions, Inc.
1303 E Algonquin Rd, 7th Floor
Schaumburg, IL 60691
Telephone: (815) 351-4020
Email: greg.buchwald@motorolasolutions.com

Motorola Solutions FCC Contact:

Frank Korinek
Director, Government Affairs
Motorola Solutions, Inc.
1455 Pennsylvania Ave., #900
Washington DC 20004
Telephone: (888) 325-9336
Email: Frank.Korinek@motorolasolutions.com

Motorola Solutions FCC Legal Counsel:

Kurt DeSoto
Wiley Rein LLP
1776 K Street, N.W.
Washington, DC 20006
Telephone: (202) 719-7235
Facsimile: (202) 719-7049
Email: kdesoto@wileyrein.com