Motorola Solutions, Inc. Request for Part 5 Experimental Special Temporary Authority ELS File No. 0791-EX-ST-2017

NARRATIVE STATEMENT

Pursuant to Section 5.3(a) and (e) and Section 5.61 of the Commission's rules, 47 C.F.R. §§ 5.3(a), (e), 5.61 (2016), Motorola Solutions, Inc., hereby respectfully requests a short-term special temporary authority ("STA") from **July 15 through July 23, 2017**, to operate on a limited number of 700 MHz narrowband channels to support the Department of Homeland Security ("DHS") Jamming Exercise to be held at Idaho National Laboratory ("INL") near Idaho Falls, Idaho.

In addition, Motorola Solutions respectfully requests expedited treatment of this request so that it may commence tests on **July 15, 2017**. Justification for such action is attached separately in the "Request for Expedited Treatment" accompanying this application.

A. <u>Purpose of Operation and Need for STA</u>:

Motorola Solutions is a leading manufacturer of mobile radio equipment for the public safety and homeland security community and is continually engaged in the design and development of new and innovative communications equipment. The experimental authority requested herein will allow the company to support DHS's evaluation of the functionality and reliability of 700 MHz narrowband devices to support the needs of potential users.

Specifically, Motorola Solutions proposes to set up, operate, and evaluate the effects of various jamming systems upon narrowband P25 signals at the request of DHS in conjunction with first responder teams from Los Angeles and other locations. To accommodate set-up requirements as well as to ensure all operations up to exercise tear-down are covered by Commission authorization, Motorola Solutions respectfully requests that the FCC grant the STA for the period July 15 through July 23, 2017.

Grant of an STA will allow Motorola Solutions to support the DHS exercise at INL and obtain additional feedback so that it may enhance the the efforts to design, develop and improve its equipment to meet the communications needs of potential users.

B. Location of Proposed Operation:

As noted above, Motorola Solutions proposes to to support the 2017 Department of Homeland Security ("DHS") Jamming Exercise to be held at Idaho National Laboratory. Temporary fixed base stations and associated antenna, along-with a limited number of portable/mobile units, would be installed or operated within a 32-kilometer radius of the coordinates 43-32-2 N Latitude; -112-59-47 W Longitude (in Datum: NAD83) as specified in the accompanying application.

C. <u>Technical Specifications</u>:

1. Frequencies Desired

Motorola Solutions requests authorization to operate on a limited number of 700 MHz narrowband channels assigned for the proposed tests 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 portable/mobile units will be deployed and configured to operate with a peak effective radiated power ("ERP") of 35W. The temporary fixed base stations will be configured to operate at a peak power level of 186 Watts ERP. Motorola Solutions will reduce the actual powers to the minimum power 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 C4FM and H-DQPSK modulation. The primary emission designators are 8K10F1D, 8K10F1E, 8K10F1W, and 9K80D7W. Other emission modes may be utilized, but in no event will the emissions extend beyond the frequency bands requested.

4. Antenna Information

The antennas for the fixed base stations will be located at temporary locations on the premises of the INL base at a height no greater than 20 feet above the ground or a building. No antennas will be mounted in a fashion that will require approval under FAA and FCC rules and regulations.

5. Equipment To Be Used

Motorola Solutions expects to support the exercise by deploying up to two temporary base units and up to 50 mobile/portable units per requested band. Moreover, Motorola Solutions will limit the power, area of operation, and transmitting times to the minimum necessary to provide an effective support of the jamming exercise.

D. <u>Protection Against Interference</u>:

As noted above, Motorola Solutions has requested authority to operate on selected 700 MHz narrowband channels assigned for the proposed tests as specified in the accompanying application. 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 STAs might have been requested and granted for operation in the same area, that these entities must effectively coordinate their operations, and that failure to do so may result in immediate suspension of STA. 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 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. <u>Restrictions on Operation</u>:

Motorola Solutions is not seeking authority to perform a market study of unapproved devices under the requested STA. 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 (2016), 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. <u>Public Interest</u>:

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

G. <u>Contact Information</u>:

Technical Contact and "Stop Buzzer/Kill Switch:"

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