Motorola Solutions, Inc. Request for Part 5 Experimental Special Temporary Authority OET File No. 0597-EX-ST-2011

EXHIBIT A (AMENDED)

NARRATIVE STATEMENT

Pursuant to Section 5.3(d) and (f) and Section 5.61 of the Commission's rules, 47 C.F.R. §§ 5.3(d), (f), 5.61 (2010), Motorola Solutions, Inc., hereby respectfully requests special temporary authority ("STA") from **October 7 to October 15, 2011**, to operate in the 758-768/788-798 MHz band for the purpose of demonstrating prototype broadband Long-Term Evolution ("LTE") devices to public safety entities in the Irving, Texas area.

Attached are letters of concurrence from the Public Safety Spectrum Trust ("PSST") and the waiver recipient in the area indicating their consent to the proposed operation on this spectrum.

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 demonstrate the performance and functionality of prototype devices designed to support the needs of the public safety and homeland security community.

Specifically, Motorola Solutions proposes to conduct demonstrations of prototype equipment to public safety personnel in the Irving, Texas area. To accommodate set-up requirements, Motorola respectfully requests that the FCC grant the STA for the period October 7, 2011 through October 15, 2011.

Grant of an STA will allow Motorola to demonstrate prototype equipment and obtain additional feedback so that it may enhance the company's efforts to design, develop and improve its equipment to meet the communications needs of potential users.

B. Location of Proposed Operation:

Motorola Solutions proposes to conduct its demonstrations using a single fixed base station transmitter antenna located at the City of Irving, Texas Library with mobile/portable units operating within a radius of 2 miles from the fixed base station. The address and approximate coordinates of the demonstration site:

City of Irving Library 801 W. Irving Blvd. Irving, TX 75060-2845 32° 48' 49" North Latitude 96° 57' 20" West Longitude Datum: NAD83

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

1. Frequencies Desired

Motorola Solutions requests authorization to operate in the band 758-768/788-798 MHz. This band encompasses both the 758-763/788-793 MHz band known as the upper 700 MHz D block, which has not yet been licensed for regular operation, and the 763-768/793-798 MHz public safety block licensed on a nationwide basis to the Public Safety Spectrum Trust ("PSST").

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 mobile/portable units to be deployed are configured to operate at an average power level of 50 mW effective radiated power ("ERP") and a peak power level of 100mW ERP. The base station will be configured to operate at an average power level of 40 Watts ERP and a peak power level of 400 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 demonstration site.

In addition, Motorola Solutions will evaluate environmental considerations to ensure compliance with Section 1.1306 of the FCC's rules, 47 C.F.R. § 1.1306 (2010), and, in particular, the human exposure requirements set forth in FCC OET Bulletin No. 65.

3. Modulation and Emissions

Motorola Solutions proposes to operate using OFDM modulation. The primary emission designators are 5M0G7D, 5M0W7W, 5M0G2D, 5M0D7D, 10M0G7D, 10M0W7W, 10M0G2D, and 10M0D7D. Other emission modes may be utilized, but in no event will the emissions extend beyond the frequency bands requested.

4. Antenna Information

The fixed base station transmitter antenna will be located at the City of Irving, Texas Library at a height of 150 feet above ground level. The mobile/portable antennas will not, under any circumstances, extend more than 6 meters above ground. 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 that it will be able to conduct its demonstration with a single base unit and up to five mobile/portable units. The base station is a prototype unit from Ericsson and the mobile/portable units are prototype equipment from Motorola Solutions. Moreover, Motorola Solutions will limit the power, area of operation, and transmitting times to the minimum necessary to evaluate the equipment.

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

As noted above, Motorola Solutions has requested authority to operate in the 758-768/788-798 MHz band. This band encompasses both the 758-763/788-793 MHz band known as the upper 700 MHz D block, which has not yet been licensed for regular operation, and the 763-768/793-798 MHz public safety block licensed on a nationwide basis to the Public Safety Spectrum Trust ("PSST"). Attached are letters of concurrence from the PSST and the waiver recipient in the area indicating their consent to the proposed operation on this spectrum. No consent is necessary or possible on the D block portion because there is no regular licensee of that spectrum.

Motorola Solutions also searched the Commission's TV database to determine what if any licensed Low Power TV (LPTV) stations are in the area and the results of that search indicate the proposed operation should not interfere with any LPTV reception. The proposed operation is co-channel with LPTV channels 62, 63, 67 and 68.

The closest co-channel facility is translator station K67IA on channel 67, approximately 72 miles from the proposed LTE demonstration site. The Commission's data base shows this station listed as "CP OFF AIR." Adjacent channel station KDXA-LP, licensed to operate on channel 64, is approximately 81 miles away from the proposed demonstration site and is also removed from the proposed demonstration by 2 MHz. Therefore, no interference from the propose operation is expected.

Motorola Solutions also conducted a search of the Commission's Universal Licensing System ("ULS") database and found no stations with which the proposed short-term demonstration would conflict. No public safety narrowband stations are authorized to operate on this spectrum under the former 700 MHz bandplan within interference range of the proposed operation.

In summary, Motorola Solutions' analysis indicates the proposed operation should not interference with any licensed operation.

Furthermore, as noted above, the length of the demonstration period is short, extending only from October 7 through October 15, 2011.

E. <u>Restrictions on Operation</u>:

Motorola Solutions is not seeking authority to perform a market study under this STA. Moreover, no fees will be charged to entities using the equipment during this test. After the test is completed, Motorola Solutions will recall and recover all devices that do not comply with FCC regulations.

Motorola Solutions also recognizes that the operation of any equipment under experimental authority must not cause harmful interference to authorized facilities. Should interference occur, Motorola Solutions will take immediate steps to resolve the interference, including if necessary arranging for the discontinuance of operation.

In addition, Motorola Solutions will advise entities using the equipment that permission to operate has been granted under experimental authority issued to Motorola Solutions, that such operation is strictly temporary, and that the equipment may not cause harmful interference. Entities will also be advised in accordance with Section 2.803 of the Commission's rules, 47 C.F.R. §2.803 (2010), that any unapproved devices have not been authorized as required by the rules of the FCC and 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 permit Motorola Solutions to develop innovative equipment that will accommodate the communications needs of the public safety and homeland security community.

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

For questions about this application, please contact:

Kurt DeSoto, Counsel to Motorola Solutions, Inc. Wiley Rein LLP 1776 K Street, N.W. Washington, DC 20006 Voice: (202) 719-7235 Facsimile: (202) 719-7207 kdesoto@wileyrein.com

In the unlikely event interference concerns should arise during the period of authorization for this STA, please contact:

Stu Overby Senior Director Global Spectrum Strategy Motorola Solutions, Inc. 1301 E. Algonquin Rd. Schaumburg, IL 60196 Telephone: (847-421-2952 <u>Stu.overby@motorolasolutions.com</u>



September 29, 2011

Marlene H. Dortch Secretary Federal Communications Commission 445 12th Street, SW Room TWA325 Washington, DC 20554

Re: Application of Motorola for Temporary Spectrum Use Irving, Texas – October 7, 2011, to October 15, 2011

Dear Ms. Dortch:

The Public Safety Spectrum Trust ("PSST") hereby provides its consent to the application of Motorola Solutions, Inc. for experimental special temporary authority ("Experimental STA") regarding its proposed temporary operation in the PSST's 700 MHz band spectrum to demonstrate Long Term Evolution ("LTE") equipment in Irving, Texas, in October, 2011, as described in more detail below. The PSST understands that the demo operation planned would conform to the following parameters:

1) Operation will be conducted in the Irving, Texas, area. Equipment would include a temporary base station and associated antenna located in the City of Irving Library, 801 W. Irving Blvd., Irving, Texas, along with a small number of portable units all operating at no more than 2 miles from the base site.

2) Motorola Solutions will request authority from the FCC to operate over the 758-768/788-798 MHz band. This encompasses both the 763-768/793-798 MHz bands, which are currently licensed on a nationwide basis to the PSST as part of the 700 MHz Public Safety Broadband License, and the 758-763/788-793 MHz bands known as the Upper 700 MHz D Block, which has not yet been licensed for regular operation.

3) Operation will occur between October 7, 2011 and October 15, 2011, allowing time during that period for setup and testing, demonstrations, and teardown.

4) We understand that Motorola Solutions has analyzed information from the FCC's license databases and has determined that the proposed operation

would not interfere or create a significant potential for interference with any public safety operations in the 700 MHz band.

5) Attached is a letter from the State of Texas to the PSST expressing support for this STA application. The State of Texas is the recipient of a FCC Waiver and the holder of a FCC approved lease for use of the PSST licensed spectrum within the State of Texas.

Given the above information, the PSST concurs with the proposed operation by Motorola Solutions on certain frequencies currently licensed to the PSST as part of the 700 MHz Public Safety Broadband License for purposes of demonstrating LTE equipment in Irving, Texas. As you are aware, decisions on the permanent use of the adjacent Upper 700 MHz D Block spectrum are still pending at the FCC. The PSST takes no position as to the Motorola Solutions request regarding use of the D Block spectrum.

We make note of the fact that Motorola Solutions has indicated they intend to ask for an experimental STA to operate over the 763-768/793-798 band in Irving, Texas from October 7-15, 2011. We have issued a similar letter of consent to the Harris Corporation for their proposed use of the spectrum licensed to the PSST in Irving Texas, during the period October 8-14, 2011. As discussed, we understand that Motorola Solutions will work with the Harris Corporation engineers to address any potential interference issues between Motorola Solutions and the Harris Corporation.

This consent is subject to the PSST's ongoing ability to monitor any operations and use of the PSST's licensed spectrum.

Respectfully submitted,

alin R. M. Enen

Chief Harlin R. McEwen Chairman Public Safety Spectrum Trust Corporation (607) 227-1664 chiefhrm@pubsaf.com

cc: Stu Overby, Motorola Solutions Bob Speidel, Harris Corporation

TEXAS DEPARTMENT OF PUBLIC SAFETY



STEVEN C. McCRAW

DIRECTOR

DAVID G. BAKER

CHERYL MacBRIDE

DEPUTY DIRECTORS

5805 N Lamar Blvd Austin, Texas 78752 (512) 424-2000 <u>www.dps.texas.gov</u>



COMMISSION ALLAN B. POLUNSKY, CHAIR ADA BROWN JOHN STEEN CARIN MARCY BARTH A. CYNTHIA LEON

September 27, 2011

Mr. Harlin R. McEwen, Chairman Public Safety Spectrum Trust 1101 K Street, NW, Suite 8100 Washington, DC 20005

Re: Application of Motorola Solutions to the FCC for Temporary Spectrum Use in Irving, Texas – October 7, 2011, to October 15, 2011

Dear Mr. McEwen:

The State of Texas through the Texas Department of Public Safety ("TxDPS") hereby provides its consent to the application of Motorola Solutions, Inc. for experimental special temporary authority ("Experimental STA") regarding its proposed temporary operation in the PSST's 700 MHz band spectrum (leased to the State of Texas) to demonstrate Long Term Evolution ("LTE") equipment in Irving, Texas, in October, 2011, as described in more detail below. TXDPS understands that the demo operation planned would conform to the following parameters:

- Operation will be conducted in the Irving, Texas, area. Equipment would include a temporary base station and associated antenna located in the City of Irving Library, 801 W. Irving Blvd., Irving, Texas, along with a small number of portable units all operating at no more than two miles from the base site.
- 2) Motorola Solutions will request authority from the FCC to operate over the 758-768/788-798 MHz band. This encompasses both the 763-768/793-798 MHz bands, which are currently licensed on a nationwide basis to the PSST as part of the 700 MHz Public Safety Broadband License, and the 758-763/788-793 MHz bands known as the Upper 700 MHz D Block, which has not yet been licensed for regular operation.
- 3) Operation will occur between October 7, 2011 and October 15, 2011, allowing time during that period for setup and testing, demonstrations, and teardown.

We understand that Motorola Solutions has analyzed information from the FCC's license databases and has determined that the proposed operation would not interfere or create a significant potential for interference with any public safety operations in the 700 MHz band.

Given the above information, the TxDPS concurs with the proposed operation by Motorola Solutions on certain frequencies currently licensed to the PSST, and leased to the State of Texas, as part of the 700 MHz Public Safety Broadband License for purposes of demonstrating LTE equipment in Irving, Texas. As you are aware, decisions on the permanent use of the adjacent Upper 700 MHz D Block spectrum are still pending at the FCC. TxDPS takes no position as to the Motorola Solutions request regarding use of the D Block spectrum.

We make note of the fact that Motorola Solutions has indicated it will ask for an experimental STA to operate over the 763-768/793-798 band in Irving, Texas from October 7-15, 2011. We have issued a similar letter of consent to the Harris Corporation for its proposed use of the spectrum licensed to the PSST, and leased to the State of Texas, in Irving Texas, during the period October 8-14, 2011. As discussed, we understand that Motorola Solutions will work with the Harris Corporation engineers to address any potential interference issues between Motorola Solutions and the Harris Corporation.

This consent is subject to the PSST's ongoing ability to monitor any operations and use of the PSST's licensed spectrum.

Respectfully submitted for the State of Texas,

MikeSimpoon

Mike Simpson Chief, Interoperable Communications Homeland Security Division Texas Department of Public Safety 5805 N. Lamar Blvd. Austin, TX 78752