

**EXHIBIT A**

**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 **March 30 to September 30, 2012**, to operate in the 758-768/788-798 MHz band for the purpose of demonstrating prototype broadband Long-Term Evolution ("LTE") equipment and devices to public safety entities in the Chicago, Illinois area.

A letter from the Public Safety Spectrum Trust ("PSST") in support of this request is attached.

Also attached as Exhibit B is a request for expedited treatment of this application.

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

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 equipment and 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 Chicago, Illinois area. To accommodate set-up and demonstration requirements, Motorola respectfully requests that the FCC grant the STA for the period March 30, 2012 through September 30, 2012.

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 up to four fixed base station transmitter antennas located in Chicago with mobile/portable units operating within a radius of two miles from the fixed base stations. The address and approximate coordinates of the demonstration sites are:

2147 S. Lumber Street  
Chicago, Illinois  
41° 51' 13" North Latitude  
87° 37' 29" West Longitude  
Datum: NAD83

800 S. Michigan Avenue  
Chicago, Illinois  
41° 52' 18" North Latitude  
87° 37' 28" West Longitude  
Datum: NAD83

1521 S. Lynn White Drive  
Chicago, Illinois  
41° 51' 38" North Latitude  
87° 36' 36" West Longitude  
Datum: NAD83

250 N. Breakwater Access  
Chicago, Illinois  
41° 53' 15" North Latitude  
87° 36' 36" West Longitude  
Datum: NAD83

**C. Technical Specifications:**

**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 a power level of no more than 2 Watts effective radiated power ("ERP"). The base stations will be configured to operate at a peak power level of 525 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. Moreover, Motorola Solutions will limit the area of operation and transmitting times to the minimum necessary to demonstrate the equipment.

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 antennas at all four sites specified above will be located at a height of no more than 190 feet above ground level. The mobile/portable antennas will be installed at a height not greater than 6 meters above ground when used outdoors or at various locations as needed for testing when used indoors. 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 up to four base units and up to 125 mobile/portable units in aggregate across all base stations. The base station is a prototype unit from Ericsson and the mobile/portable units are prototype equipment from Motorola Solutions.

**D. Protection Against Causing Interference:**

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”). A letter of consent is attached from the PSST regarding operation on its portion of the spectrum. Legislation recently passed reallocated the D block to public safety use for the nationwide broadband network but under the provisions of that decision, a number of months of work will need to be conducted before the nationwide broadband network begins to be deployed. Therefore, the proposed demonstration operation is not expected to impact any regular operation on the 700 MHz band public safety spectrum.

Under the Commission’s rules, LPTV and translator stations were required to vacate the 700 MHz band by 12/31/2011, so there should be no interference to those operations from the proposed operation.

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. The State of Illinois operates vehicular repeaters in some parts of the state on portions of the 700 MHz band licensed to the PSST. However, Motorola Solutions understands those vehicular repeaters are not used in the Chicago area.

In summary, the analysis conducted by Motorola Solutions indicates that the proposed operation should not interfere with any licensed operation.

**E. Restrictions on Operation:**

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: (1) any unapproved equipment and devices (*i.e.*, prototypes), and (2) any equipment and devices that might be approved, but do not comply with other FCC rules. Motorola Solutions does not intend to leave any equipment or devices in the field after the proposed tests are completed.

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 equipment and 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. Public Interest:**

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. Contact Information:**

For questions about this application, please contact:

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Wiley Rein LLP (FCC Counsel to Motorola Solutions, Inc.)  
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In the unlikely event interference concerns should arise during the period of authorization for this STA, please contact:

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March 4, 2012

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

**Re: Application of Motorola Solutions, Inc. for Temporary Spectrum Use  
Chicago, Illinois – March 30, 2012 through September 30, 2012**

Dear Ms. Dortch:

The Public Safety Spectrum Trust Corporation (“PSST”) hereby provides its consent to the application of Motorola Solutions, Inc. (“Motorola Solutions”) for an 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 Chicago, Illinois, between March 30, 2012 and September 30, 2012, as described in more detail below. The PSST understands that the demonstration operation planned would conform to the following parameters:

1) Operation will be conducted in the Chicago area. The equipment would include base stations and associated antennae located at 2147 S. Lumber Street, 800 S. Michigan Avenue, 1521 S. Lynn White Drive, and 250 N Breakwater Access, all in Chicago, along-with a small number of portable units operating at no more than 2 miles from each 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 March 30, 2012, and September 30, 2012, 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) Motorola Solutions has stated that this temporary operation will not be used in mission-critical operations or in the delivery of live transmissions in duties to protect life, property, or safety.

Given the above information, the PSST concurs with Motorola Solutions' proposed operation 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 Chicago, Illinois.

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

Respectfully submitted,



Chief Harlin R. McEwen  
Chairman  
Public Safety Spectrum Trust Corporation  
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cc: Stuart Overby, Motorola Solutions, Inc.