

NARRATIVE STATEMENT

Pursuant to Section 5.3(e) and (g) and Section 5.61 of the Commission's rules, 47 C.F.R. §§ 5.3(e), (g), 5.61 (2015), Motorola Solutions, Inc., hereby respectfully requests a short-term special temporary authority ("STA") from **January 16 through January 19, 2017**, to operate in the 758-768/788-798 MHz and 758-803/703-748 MHz bands for the purpose of demonstrating broadband Long-Term Evolution ("LTE") equipment at the Twentynine Palms United States Marine Corps base in California.

In addition, Motorola Solutions respectfully requests expedited treatment of this request so that it may commence tests on **January 16, 2017**. Justification for such action is attached separately in the "Request for Expedited Treatment" accompanying 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 functionality and reliability of prototype or certified LTE devices designed to support the needs of potential users.

Specifically, Motorola Solutions proposes to conduct demonstrations of broadband LTE equipment over a two-day period at the Twentynine Palms USMC base located in a remote area of southern California. To accommodate set-up requirements as well as to ensure all operations up to the tear-down period are covered by Commission authorization, Motorola Solutions respectfully requests that the FCC grant the STA for the period January 16 through January 19, 2017.

Grant of an STA will allow Motorola Solutions to demonstrate 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:

As noted above, Motorola Solutions proposes to conduct demonstrations at the Twentynine Palms USMC base in California. Temporary fixed base stations and associated antenna, along-with a limited number of portable/mobile units, would be installed or operated within a 20 kilometer radius of the coordinates (in Datum: NAD83) provided below.

Twentynine Palms United States Marine Corps Base
34° 14' 09.26" North Latitude
116° 03' 30.51" West Longitude

C. Technical Specifications:

1. Frequencies Desired

Motorola Solutions requests authorization to operate in the bands 758-768/788-798 MHz allocated for a nationwide public safety broadband network yet to be built and licensed to the First Responder Network Authority ("FirstNet"). It also seeks authorization to operate in the band 758-803/703-748 MHz allocated for LTE communications.

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 maximum average power level of 250 mW effective radiated power ("ERP") and a maximum peak power level of 2.5 Watts ERP. The temporary fixed base stations will be configured to operate at a maximum average power level of 5 Watts ERP and a maximum peak power level of 50 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.

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 antennas for the fixed base stations will be located at temporary locations on the premises of the USMC 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 conduct its demonstration with up to six temporary base units and up to ten mobile/portable units per requested band. The base stations and the mobile/portable units are prototype or demonstration equipment. Moreover, Motorola Solutions will limit the power, area of operation, and transmitting times to the minimum necessary to provide an effective demonstration.

D. Protection Against Interference:

As noted above, Motorola Solutions has requested authority to operate in the 758-768/788-798 MHz bands allocated for a nationwide public safety broadband network and licensed to FirstNet. 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 FirstNet operations or to those approved to operate in the 758-768/788-798 MHz bands (e.g., SMLA licensees/current incumbents). Motorola Solutions will also coordinate with and obtain required consent from existing licensees authorized in the band 758-803/703-748 MHz.

Motorola Solutions has verified with reasonable supporting detail that no current potential exists for interference to FirstNet operations or to those approved to operate in the 758-768/788-798 MHz bands. It conducted a search of the Commission's Universal Licensing System ("ULS") database and verified that the proposed demonstration in area should not interfere with any primary operations in that spectrum. Moreover, under Commission rules, Low Power TV stations and auxiliary stations were previously required to vacate the 700 MHz band, so no interference should occur to broadcast facilities. Furthermore, as noted above, the length of the tests and demonstrations will be limited, extending only from January 16 through January 19, 2017.

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.

Moreover, Motorola Solutions has established a point of contact ("POC") identified below with "kill switch" authority and certifies that the Governor-appointed FirstNet Single Point of Contact within the proposed STA location (as identified at www.firstnet.gov/consultation) has been notified of the STA application. Motorola Solutions agrees to cease operations at the request of FirstNet immediately upon receipt of request to kill switch POC until such time, as determined by FirstNet, that the operations may continue.

In summary, the analysis conducted by Motorola Solutions indicates the proposed operation should not cause interference with any licensed operation. Should interference occur, 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 STA. Moreover, the demonstration 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 demonstration facilities.

Entities will be advised in accordance with Section 2.803 of the Commission's rules, 47 C.F.R. §2.803 (2015), 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:

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 develop innovative equipment that will accommodate the communications needs of potential users.

G. Contact Information:

Technical Contact and "Stop Buzzer/Kill Switch:"

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