

NARRATIVE STATEMENT

Pursuant to Section 5.3(c), (e) and (g) and Section 5.61 of the Commission's rules, 47 C.F.R. §§ 5.3(c), (e), (g), 5.61 (2015), Motorola Solutions, Inc. (MSI) hereby respectfully requests special temporary authority (STA) to conduct tests in the bands 138-150.8 MHz, 380-399.9 MHz and 406.1-420 MHz for the purpose of demonstrating the functionality of prototype mobile subscriber units to be used with the base station facilities authorized by the Federal Government for operation at several military installations listed in Attachment A. The proposed demonstration would be conducted in connection with Department of Defense (DoD) contract, Army Subscriber Unit Radio and Accessory Contract (SURAC) Solicitation W52P1J-16-R-0073, which allows entities to conduct their test "if Federal Communications Commission (FCC) approval to demonstrate is received." SURAC, Amendment 0001, Section 2.1.

MSI is coordinating these activities with Conrad Baker and Craig Gandee, its DoD contacts for this project. For the FCC staff's convenience, their contact information is provided below:

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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 devices designed to support the needs of the military.

Specifically, MSI proposes to conduct tests and demonstrations at the military installations listed in the attached table and in the accompanying application form. Operations will occur at discrete times during the term of the requested STA.

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

B. Location of Proposed Operation:

MSI proposes to conduct its tests and demonstrations of mobile subscriber units operating within a radius of 16 kilometers from the base stations authorized to and operated by the Federal Government at up to eight of the locations listed in Attachment A and in the accompanying application form.

C. Technical Specifications:

1. Frequencies Desired

MSI requests authorization to operate in the bands 138-150.8 MHz, 380-399.9 MHz, or 406.1-420 MHz as specified in Attachment A and in the accompanying application form.

2. Effective Radiated Power

The mobile subscriber units to be deployed are configured to operate at an output power level of 35W and an effective radiated power (ERP) of 75W. All power levels will comply with the limits set forth in the FCC's rules, including those relating to human exposure to radiation. Moreover, MSI will limit the power, area of operation, and transmitting times to the minimum necessary to evaluate the equipment.

3. Modulation and Emissions

MSI proposes to operate using C4FM modulation. The primary emission designators are 8K10F1E and 8K10F1D. Other emission modes may be utilized, but in no event will the emissions extend beyond the frequency bands requested.

4. Antenna Information

Antennas associated with the mobile subscriber units will not extend more than 6 meters above the ground. No mobile subscriber antennas will be mounted in a fashion that will require further approval under FAA and FCC rules and regulations. MSI will not install or operate base station transmitter antennas under the STA requested herein. All base station facilities deployed during this test are operated by and authorized to the Federal Government.

5. Equipment To Be Used

MSI expects that it will be able to conduct its demonstration with up to 15 mobile subscriber units at each of up to eight of the locations listed in Attachment A and in the accompanying application form.

D. Protection Against Causing Interference:

MSI understands that it must accept interference from any other users and that all operations must be conducted on a secondary basis. Moreover, MSI has established a point of contact (POC) identified below with “kill switch” authority and will send the POC’s contact information to FirstNet upon agency approval of the requested STA.

E. Restrictions on Operation:

MSI 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, MSI will recall and recover all devices that do not comply with FCC regulations.

In addition, MSI will advise entities using the equipment that permission to operate has been granted under experimental authority issued to MSI, Inc., 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 (2015), 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. Public Interest:

MSI submits that issuance of an STA as requested is in the public interest, convenience, and necessity. Grant of an STA will permit MSI to develop innovative equipment that will accommodate the communications needs of users.

G. Contact Information:

For questions about this application, please contact:

MSI Technical Contact and “Stop Buzzer/Kill Switch:”

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Attachment A

Locations and Frequencies of Proposed Operations

No.	Location	Coordinates (NAD83)	Frequencies
1	Fort Rucker, AL	31-20-15N; 085-42-58W	138-150.8 MHz 380-399.9 MHz
2	Fort Benning, GA	32-23-28N; 084-49-27W	380-399.9 MHz
3	Fort Leavenworth, KS	39-21-45N; 094-55-17W	380-399.9 MHz
4	Fort Polk, LA	31-03-21N; 093-12-45W	380-399.9 MHz
5	Fort Belvoir	38-41-18N; 077-08-46W	380-399.9 MHz
6	Fort Bragg, NC	35-08-25N; 079-00-23W	380-399.9 MHz
7	Anniston, AL	33-37-35N; 085-58-09W	380-399.9 MHz
8	Fort Lee, VA	37-14-52N; 077-20-24W	380-399.9 MHz
9	Hunter-Liggett, CA	35-58-26N; 121-14-23W	380-399.9 MHz
10	Fort Gordon, GA	33-23-55N; 082-06-52W	380-399.9 MHz
11	Fort Campbell, KY	36-39-36N; 087-28-37W	380-399.9 MHz
12	Detroit Arsenal	42-29-30N; 083-02-18W	380-399.9 MHz
13	Radford, VA	37-10-38N; 080-32-22W	380-399.9 MHz
14	Rock Island, IL	41-30-31N; 090-34-35W	380-399.9 MHz
15	Fort Bliss, TX	31-48-39N; 106-25-18W	406.1-420 MHz