## NARRATIVE STATEMENT

Pursuant to Section 5.3(e), (f) and (g) and Section 5.61 of the Federal Communications Commission's ("FCC") rules, 47 C.F.R. §§ 5.3(e), (f) and (g), 5.61 (2017), Motorola Solutions, Inc., respectfully requests a special temporary authority ("STA") for a limited period (**from July 14, through July 27, 2018**) to test and demonstrate prototype equipment. Specifically, grant of the STA would allow Motorola Solutions to operate prototype equipment in the 2200-2250 MHz band for evaluation by the Department of Defense ("DoD") in connection with the July 2018 U.S. Special Operations Command (USSOCOM") Technical Experimentation (TE) 18-3 Event. The proposed tests and demonstrations will be conducted at two locations: (1) at the Fort A.P. Hill Asymmetrical Warfare Training Center in Bowling Green, Virginia, and (2) at the test facilities of Motorola Solutions, Inc., in Schaumburg, Illinois. The DoD contact for this event is Thomas W. McGowan (mcgowat.ctr@socom.mil).

The following information is provided in support of this request:

## A. <u>Purpose of Operation</u>:

Motorola Solutions, Inc. is a leading manufacturer of mobile radio equipment and systems and is continually engaged in the design and development of new and innovative solutions. It is actively involved in particular with researching and developing wireless data and voice capabilities incorporated not only into critical infrastructure and public safety products, but also into government communications systems.

By this application, Motorola Solutions seeks to test and demonstrate equipment and solutions designed for use by the Department of Defense. It does not propose to market, sell, or lease prototype equipment under the requested authority for operation by other entities or users. After the experimentation ceases, Motorola Solutions will recall and recover all test devices.

#### B. Proposed Locations:

Motorola Solutions proposes to conduct tests and demonstrations within a one kilometer radius of the two locations specified in the attached application and as specified below:

Location No. 1 Fort A.P. Hill Asymmetrical Warfare Training Center Bowling Green, Virginia 22427 38° 06' 01.0" North Latitude 77° 17' 25.2" West Longitude (NAD 83 Datum) Location No. 2 Motorola Solutions. Inc. 1301 E. Algonquin Road Schaumburg, Illinois 60196 42° 03' 59.0" North Latitude 88° 03' 21.8" West Longitude (NAD 83 Datum)

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

| Frequency Band:  | 2200-2250 MHz                                 |
|--|---|
| Modulation:  | OFDMA, unmodulated carrier for reference only |
| Bandwidth/Emissions Designators:   | 5M00W7W, 10M0W7W                              |
| Antenna Data/Temp. Fixed Stations:<br>Power Output (TPO):<br>ERP / EIRP: | 4.0 Watts<br>3.2 Watts / 5.2 Watts (Mean)     |

As the modulation bandwidth is scaleable, other emission modes may be utilized, but in no event will the emissions extend beyond the frequency bands requested. All power levels will comply with the limits set forth in the FCC's rules, including those relating to human exposure to radiation.

# D. Equipment To Be Used:

Motorola Solutions proposes to deploy a limited number of units at the proposed locations. It expects that it will be able to complete its experimentation and demonstration with a maximum of four temporary fixed base stations at each location. Thus, the maximum number of temporarily fixed base stations to be deployed under this STA would be eight units. Moreover, Motorola Solutions will limit the power, area of operation, and transmitting times of these units to the minimum necessary to conduct its tests and demonstrations.

## E. Antenna / Antenna Structure Heights:

The antennas to be installed under this authority will not extend more than six meters above the ground or, if mounted on an existing building, will not extend more than six meters above the building. If an antenna is mounted on an existing structure other than a building, it will be installed in accordance with FAA and FCC rules and regulations.

## F. <u>Restrictions on Operation</u>:

As noted above, Motorola Solutions does not propose to market, sell, or lease prototype equipment to non-government entities or end users or to conduct a market study in conjunction with this test. Moreover, no fees will be charged to entities using the equipment during this test. After the experimentation ceases, Motorola Solutions will recall and recover all devices that do not comply with FCC regulations. If any different treatment becomes necessary during the course of its experimentation, Motorola Solutions will seek separate and additional authority from the agency.

Motorola Solutions also recognizes that all operations under the requested STA must not cause harmful interference to authorized facilities. It does not anticipate that such interference will occur, but should such interference occur, Motorola Solutions will immediately take steps to resolve the interference, including if necessary discontinuing operation.

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In addition, Motorola Solutions would advise entities using the equipment that permission to operate the equipment has been granted under experimental authority issued to Motorola Solutions, is strictly temporary and may be canceled at any time.

## G. Public Interest:

Motorola Solutions submits that issuance of an STA is in the public interest, convenience, and necessity, as it will permit Motorola Solutions to develop innovative equipment that will accommodate the communications needs of the Department of Defense.

## H. Contact Information:

#### **Department of Defense Contact:**

Thomas W. McGowan USSOCOM Headquarters Email: <u>Mcgowat.ctr@socom.mil</u>

#### Motorola Solutions Technical Contact and "Stop Buzzer/Kill Switch:"

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