

Motorola, Inc.
Application on Form 442 for
Experimental Radio License
0300-EX-PL-2006

NARRATIVE STATEMENT

Pursuant to Section 5.51 of the Commission's rules, 47 C.F.R. § 5.51 (2005), Motorola, Inc., respectfully requests an experimental license, to test, evaluate and demonstrate prototype equipment designed for public safety and homeland security use operating on 25 kHz channels in the bands 851-866 MHz and 764-776 MHz. Experimental activities will be conducted at the locations identified below. Grant of this application would serve to replace and supplement Motorola's existing special temporary authority ("STA") for this experimentation granted under File No. 0723-EX-ST-2005 and issued under call sign WC9XFA. The following information is provided in support of this request:

Purpose of Operation:

Motorola proposes to test and demonstrate prototype equipment before such equipment is certified or verified for unconditional sale and shipment to public safety and homeland security users. The company is continually developing equipment to support such activities and must test and demonstrate equipment during various stages of design and development to evaluate its functionality, acceptability, and interoperability prior to seeking equipment authorization. Specifically, Motorola seeks to test the performance, capacity, signal quality, and data rates of such equipment. By evaluating products before obtaining FCC equipment approvals, Motorola is able to identify and make needed enhancements to ensure its products meet public safety and homeland security communications needs.

Proposed Locations:

Motorola proposes to conduct its experimental activities on base stations at the five locations listed below. Mobile operations will occur within 35 kilometers of each of the locations.

Omaha, Nebraska (Loc. No. 1) North Latitude 41 deg 17' 25" West Longitude 096 deg 09' 20" Datum: NAD83	Omaha, Nebraska (Loc. No. 2) North Latitude 41 13 29.6" West Longitude 95 deg 57' 11.6" Datum: NAD83	Omaha, Nebraska (Loc. No. 3) North Latitude 41 deg 16' 13" West Longitude 95 deg 58' 21" Datum: NAD83
Magna, Utah North Latitude 40 deg 37' 52" West Longitude 112 deg 07' 01" Datum: NAD83	Murray Tower, Utah North Latitude 40 deg 38' 54" West Longitude 111 deg 53' 54" Datum: NAD83	

Technical Specifications:

Frequency	851-866 MHz (base) 806-821 MHz (mobile)	764-776 MHz (base) 794-906 MHz (mobile)
Station Power (all power levels will comply with the limits set forth in the FCC's rules, including those relating to human exposure to radiation)	200 W Peak ERP	200 W Peak ERP (Omaha sites) 103 W Peak ERP (Murray Tower site) 91 W ERP (Mahogany Peak site)
Mobile Power	30 W Peak ERP	30 W Peak ERP
Bandwidth	25 kHz Maximum	25 kHz Maximum
Modulation	Angle/Amplitude	Angle/Amplitude
Emission Designators (other emission modes may be utilized, but in no event will the emissions extend beyond the frequency bands requested)	17K7D7D	17K7D7D
Station Antenna	Omni or Directional up to 9 dBi Gain	Omni or Directional up to 9 dBi Gain
Mobile Antenna	Omni up to 3 dBi Gain	Omni up to 3 dBi Gain

Motorola requests a waiver of the station identification requirements set forth in Section 5.115 of the Commission's rules, 47 C.F.R. § 5.115 (2005).

Interference Protection:

800 MHz: For purposes of the experimental activities conducted under the license requested in this application, Motorola proposes to operate only on channels in the 800 MHz band already assigned to users participating in the test or on unassigned or unused channels. Moreover, Motorola will operate on a non-interference basis to any adjacent or co-channel licensees.

700 MHz: Motorola conducted an interference analysis with respect to the proposed operations in the 700 MHz band. This analysis was based upon: (1) the actual grade B contours shown in the Commission's database for the TV stations in the proposed areas of operation, (2) the interference protection criteria set forth in Section 90.545(c)(1)(ii) of the FCC's rules, and (3) the R6602-based contours (derived from the effective radiated power and antenna heights) of the proposed land mobile radios to be deployed during the experimentation. This analysis shows that there are no operational, full power co-channel or adjacent channel TV stations on channels within the interference range of the proposed experimental operations that require protection. An exhibit is attached depicting the results of this analysis.

Moreover, operation under this experimental license will occur only on a limited number of 25 kHz channel pairs within the 700 MHz band. It is anticipated that only one or two such channel pairs will be used at each site. Nevertheless, Motorola has requested authorization in this application to conduct tests within the entire 700 MHz band allocated for public safety purposes so it will have the flexibility to select specific channels to avoid interference to any auxiliary broadcast or low power TV operations. Motorola will coordinate with the relevant Society of Broadcast Engineers ("SBE") representatives for the locations involved.

Antenna Information:

The antennas will not extend more than six (6) meters above the ground or, if mounted on an existing building, will not extend more than 6 meters above the building. If the antennas are mounted on an existing structure other than a building, they will be installed in accordance with FAA and FCC rules and regulations.

Types and Number of Units To Be Tested:

To obtain valid data and present an accurate demonstration of real-world operations, Motorola must deploy a sufficient number of units during its test to simulate actual usage. It expects that it will be able to complete its experimentation and demonstration with one (1) base unit and no more than fifteen (15) mobile units per location. It will also limit the power, area of operation, and transmitting times to the minimum necessary to evaluate the equipment. If necessary, Motorola will seek separate and specific authority if more units were needed to conduct a particular experiment.

Restrictions on Operation:

Motorola does not propose to market, sell, or lease prototype equipment to end users in conjunction with this test. Moreover, no fees will be charged to entities using the equipment during this test. After the experimentation ceases, Motorola 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 will seek separate and additional authority from the agency.

Motorola also recognizes that the operation of any equipment under experimental authority must not cause harmful interference to authorized facilities. It therefore will coordinate its activities with any relevant licensees in the proposed bands in accordance with FCC requirements. Should interference occur, Motorola will take immediate steps to resolve the interference, including if necessary arranging for the discontinuance of operation.

In addition, Motorola will advise entities using the equipment that permission to operate has been granted under experimental authority issued to Motorola, that such operation is strictly temporary, and that the equipment may not cause harmful interference. Motorola proposes to label the equipment or associated written information as follows:

FCC STATEMENT

Permission to operate this device has been granted under experimental authority issued by the Federal Communications Commission to Motorola, Inc., is strictly temporary and may be cancelled at any time. Operation is subject to the condition that it not cause harmful interference. This device is not, and may not be, offered for sale or sold until the approval of the FCC has been obtained. Thus, the user does not hold a property right in the device and may be required to return the device.

Public Interest Statement:

Motorola submits that issuance of a license is in the public interest, convenience, and necessity. Grant of a license will permit Motorola to develop innovative equipment that will accommodate the public safety and homeland security communications needs of users.

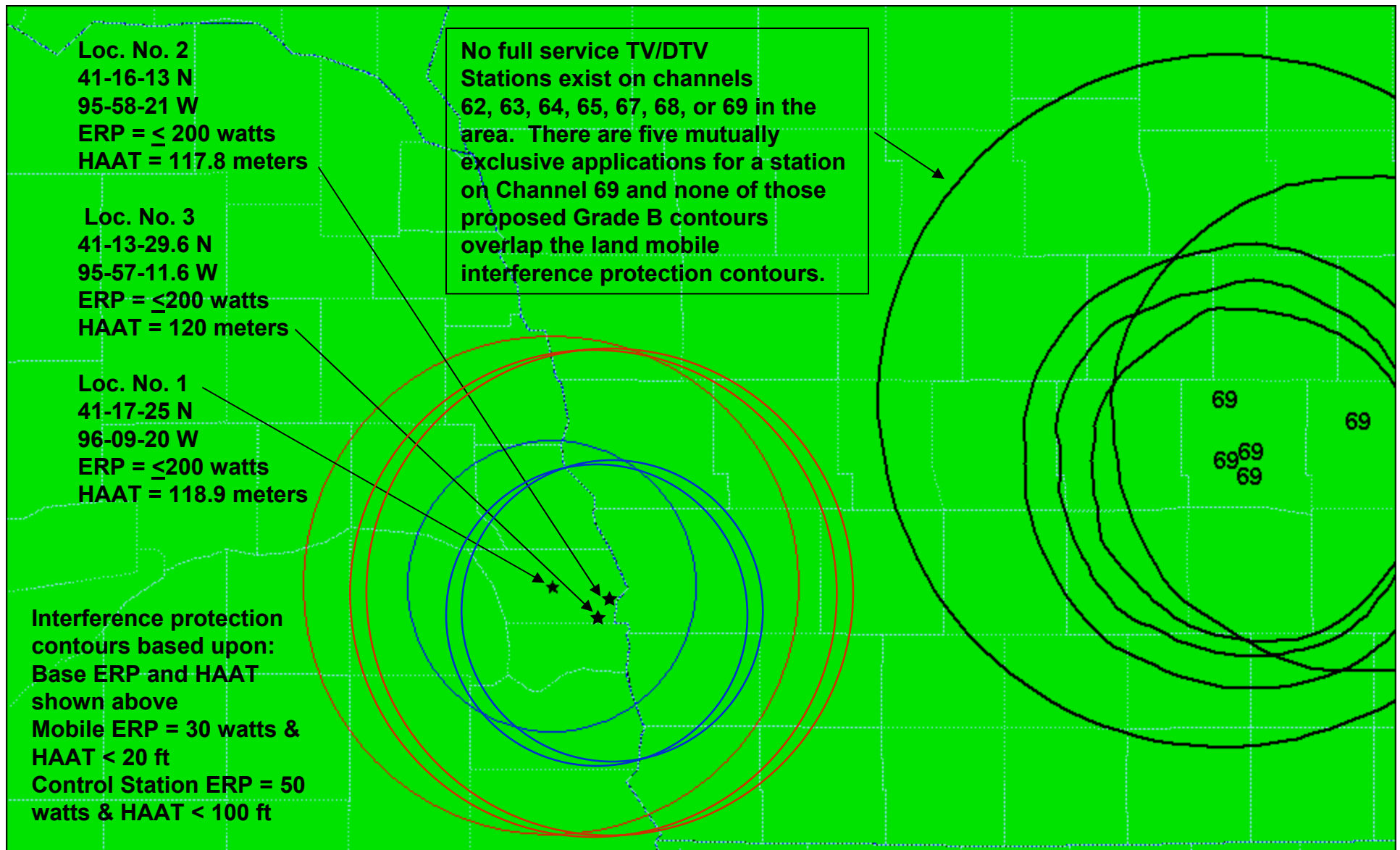
Contact Information:**Motorola Contact:**

Stu Overby
Director, Global Spectrum & Standards Strategy
1301 E. Algonquin Road
Schaumburg, IL 60196
Office: 847-576-2952
stu.overby@motorola.com

Legal Contact:

Kurt DeSoto, Esq.
Wiley Rein & Fielding LLP
1776 K Street, N.W.
Washington, DC 20006
Office: (202) 719-7235
kdesoto@wrf.com

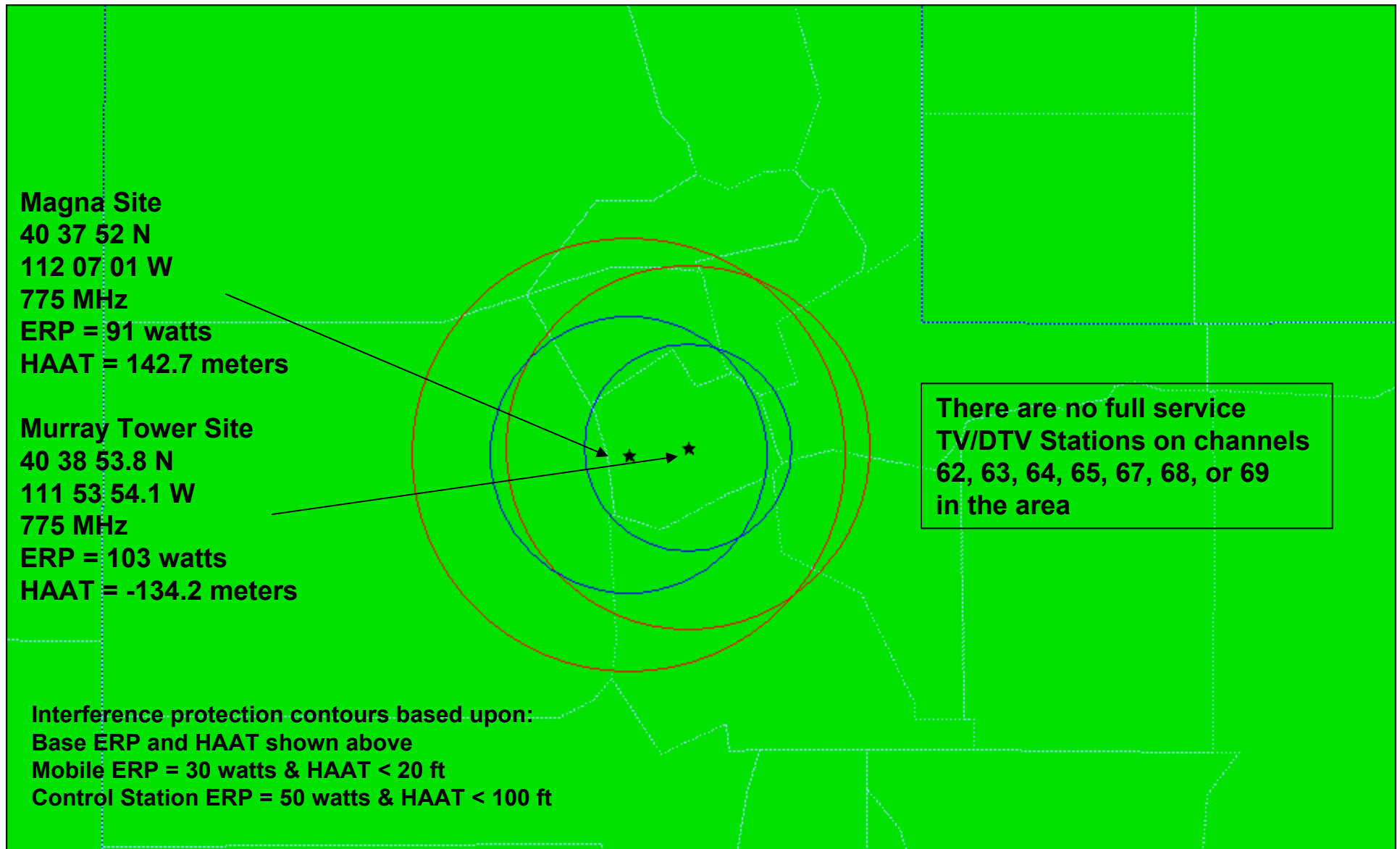
Omaha, Nebraska sites – 775 MHz



-  Co-Channel Protection (channels 64 & 69)
-  Adj-Channel Protection (channels 63, 65, & 68)

If protection contour does not intersect TV/DTV Grade B contour, there is sufficient protection from LMR to incumbent TV/DTV.

Utah Sites - 775 MHz



-  Co-Channel Protection (channels 64 & 69)
-  Adj-Channel Protection (channels 63, 65, & 68)

If protection contour does not intersect TV/DTV Grade B contour, there is sufficient protection from LMR to incumbent TV/DTV.