Tarana Wireless Inc. Application on FCC Form 442 for an Experimental STA ELS File No. 0863-EX-ST-2013

### NARRATIVE STATEMENT

Pursuant to Section 5.61 of the Commission's rules, 47 C.F.R. §§ 5.61 (2012), Tarana Wireless Inc. hereby respectfully requests an experimental special temporary authority ("STA") to operate in the 3655-3670 MHz band for the purpose of demonstrating and evaluating the functionality and performance of prototype devices under design and development.

This request is identical to, and is intended to supplement, its request for STA submitted and granted under File No. 0764-EX-ST-2013, call sign WG9XWB, but seeks to deploy three additional locations, listed in Section (C) below.

Tarana Wireless Inc. also respectfully requests expedited treatment of this request so that it may commence the demonstrations on or before **October 1, 2013**, and continue such demonstrations through December 31, 2013. Justification for such action is attached separately in the "Request for Expedited Treatment" accompanying this application.

The following provides additional details regarding this request.

### A. Purpose of Operation and Need for Experimental License:

Tarana Wireless is designing and developing equipment that will operate in the 3655-3670 MHz band. It seeks to demonstrate and test key functionalities of prototype equipment designed to improve Non-Line-of-Sight ("NLoS") reliability and spectral efficiency of wireless backhaul systems. Tarana Wireless also seeks to test and evaluate the coverage, capacity, and reliability of multiple backhaul link operations in on the same frequency channel

### B. Need for an Experimental License and Expedited Treatment:

Tarana Wireless was recently asked to conduct demonstrations and tests beginning on October 1, 2013, to benchmark the equipment as part of a vendor selection process. The demonstrations cannot be postponed until a later date.

# C. <u>Locations and Antenna Specifications of Proposed Operations</u>:

Location No. 1:

26 Federal Plaza, New York, NY

Coordinates: North: 40-42-57; West: 74-0-15 (NAD 83)

Ground Elevation: 30 feet AMSL Antenna Height: 570 feet AGL

Location No. 2:

Cory Hall Berkeley, CA

Coordinates: North: 37-52-30; West: 122-15-28 (NAD 83)

Ground Elevation: 342 feet AMSL Antenna Height: 100 feet AGL

Location No. 3:

2953 Bunker Hill Lane, Santa Clara, CA

Coordinates: North: 37-24-22; West: 128-58-48 (NAD 83)

Ground Elevation: 10 feet AMSL Antenna Height: 66 feet AGL

Tarana Wireless also proposes to operate a single mobile unit within 4.8 kilometers or less of each of these locations. The unit will be placed in a vehicle with telescopic mast and an antenna height to tip of not more than 20 feet AGL.

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

#### 1. Frequencies Desired

Tarana Wireless requests an experimental STA to operate in the 3655-3670 MHz band.

#### 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.

Mean ERP: 6.02 W (for 10 MHz operation) Mean EIRP: 10.0 W (for 10 MHz operation)

In addition, Tarana Wireless will evaluate environmental considerations to ensure compliance with Section 1.1307 of the FCC's rules, 47 C.F.R. § 1.1307 (2012), and, in particular, the human exposure requirements set forth in FCC OET Bulletin No. 65.

#### 3. Modulation and Emissions

Emission Designator: 10M0D7D

## 4. Equipment To Be Used

Equipment Type: Prototype Equipment
Manufacturer: Tarana Wireless Inc.
Transmitter Model Nos.: AbsoluteAir-CN-3-100,

AbsoluteAir-EN-3-100

No. of Units: 1 Base Station and 1 Mobile at Each Site

### **E.** Restrictions on Operation:

Tarana Wireless does not propose to market, sell, or lease prototype equipment to end users. Moreover, no fees will be charged to entities evaluating the equipment during this test. After the experimentation ceases, it will recall and recover all unauthorized devices.

Tarana Wireless also recognizes that the proposed experimental operation must not cause harmful interference to authorized facilities. It does not anticipate a problem, but should interference occur, it will immediately take steps to resolve the interference, including if necessary discontinuing operation. To that end, Tarana Wireless would advise entities using the equipment that permission to operate the equipment has been granted under experimental authority issued to Tarana Wireless, is strictly temporary and may be canceled at any time, and that any unauthorized equipment may not be and may not be, offered for sale or lease, or sold or leased, until authorization is obtained. Specifically, Tarana Wireless proposes to label the equipment or user information conspicuously with information as follows:

#### **FCC STATEMENT**

Permission to operate this device has been granted under experimental authority issued by the Federal Communications Commission to Tarana Wireless Inc., is strictly temporary, and may be canceled at any time.

This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained. Thus, the user does not hold a property right in the device and may be required to return the device.

### F. Public Interest Statement:

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

# **G.** Contact Information:

For questions about this application, please contact:

Kurt DeSoto Wiley Rein LLP 1776 K Street, N.W. Washington, DC 20006 Telephone: (202) 719-7235

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In the unlikely event interference concerns should arise during the period of authorization for this license, please contact:

Rakesh Tiwari Director, Product Management Tarana Wireless Inc. 2953 Bunker Hill Lane, Suite 100 Santa Clara, CA 95054

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