

**NARRATIVE STATEMENT**

Pursuant to Sections 5.51, 5.53 and 5.61 of the Commission’s rules, 47 C.F.R. §§ 5.51, 5.53 and 5.61 (2013), Tarana Wireless Inc. hereby respectfully requests an experimental special temporary authority (“STA”) to operate in the 3650-3700 MHz band for the purpose of evaluating and demonstrating the functionality and performance of prototype devices under design and development.

In addition, Tarana Wireless Inc. respectfully requests expedited treatment of this request so that it may commence tests on or before **June 15, 2015**, and continue such tests through December 15, 2015. 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 3650-3700 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.

In accordance with Section 90.1331 of the FCC’s rules, 47 C.F.R. § 90.1331 (2013), the operation of base or fixed stations within 150 km of a grandfathered satellite earth station will be with conducted only with the agreement of the licensee of the satellite earth station.

Moreover, 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.

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

Tarana Wireless was recently asked by a leading communications company to conduct demonstrations and tests beginning on June 15, 2015, to benchmark the system as part of its vendor selection process. The demonstrations cannot be postponed until a later date.

**C. Locations and Antenna Specifications of Proposed Operations:**

Hub Site Location:

2953 Bunker Hill, Santa Clara, CA  
Lat. Long.: 37-24-22.42 N; 121-58-48.74 W  
Ground Elevation: 3 meters AMSL  
Building/Antenna Structure Height: 20 meters AGL  
Antenna Height to Tip: 23 meters AGL  
Center of Radiation: 21 meters AGL

Remote Site Location No. 6:

3200 Patrick Henry, Santa Clara, CA  
Lat. Long.: 37-23-44.83 N; 121-59-7.03 W  
Ground Elevation: 5 meters AMSL  
Building/Antenna Structure Height: 5 meters AGL  
Antenna Height to Tip: 7 meters AGL  
Center of Radiation: 6 meters AGL

Remote Site Location No. 1:

4750 Patrick Henry, Santa Clara, CA  
Lat. Long.: 37-23-56.73 N; 121-59-8.78 W  
Ground Elevation: 4 meters AMSL  
Building/Antenna Structure Height: 5 meters AGL  
Antenna Height to Tip: 7 meters AGL  
Center of Radiation: 6 meters AGL

Remote Site Location No. 7:

1130 Mountain Viea Alviso Road, Santa Clara, CA  
Lat. Long.: 37-24-33.43 N; 121-59-40.58 W  
Ground Elevation: 2 meters AMSL  
Building/Antenna Structure Height: 5 meters AGL  
Antenna Height to Tip: 7 meters AGL  
Center of Radiation: 6 meters AGL

Remote Site Location No. 2:

4701 Patrick Henry, Santa Clara, CA  
Lat. Long.: 37-23-52.77 N; 121-59-4.09 W  
Ground Elevation: 4 meters AMSL  
Building/Antenna Structure Height: 5 meters AGL  
Antenna Height to Tip: 7 meters AGL  
Center of Radiation: 6 meters AGL

Mobile Location:

3.2 kilometer radius of Hub Site  
2953 Bunker Hill, Santa Clara, CA  
Lat. Long.: 37-24-22.42 N; 121-58-48.74

Remote Site Location No. 3:

1244 Reamwood, Santa Clara, CA  
Lat. Long.: 37-24-17.43 N; 121-59-16.29 W  
Ground Elevation: 4 meters AMSL  
Building/Antenna Structure Height: 5 meters AGL  
Antenna Height to Tip: 7 meters AGL  
Center of Radiation: 6 meters AGL

Remote Site Location No. 4:

2901 Tasman, Santa Clara, CA  
Lat. Long.: 37-24-13.35 N; 121-58-42.09 W  
Ground Elevation: 4 meters AMSL  
Building/Antenna Structure Height: 5 meters AGL  
Antenna Height to Tip: 7 meters AGL  
Center of Radiation: 6 meters AGL

Remote Site Location No. 5:

4699 Old Ironside, Santa Clara, CA  
Lat. Long.: 37-23-57.40 N; 121-58-44.30 W  
Ground Elevation: 5 meters AMSL  
Building/Antenna Structure Height: 7 meters AGL  
Antenna Height to Tip: 6 meters AGL  
Center of Radiation: 5 meters AGL

**D. Technical Specifications:**

**1. Frequencies Desired**

Tarana Wireless requests an experimental license to operate in the 3650-3700 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: 12.16 W (for 20 MHz operation)

Mean EIRP: 19.95 W (for 20 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 (2013), and, in particular, the human exposure requirements set forth in FCC OET Bulletin No. 65.

**3. Modulation and Emissions**

Emission Designator: 20M0D7D

**4. Equipment To Be Used**

Equipment Type:	Prototype Equipment
Manufacturer:	Tarana Wireless Inc.
Transmitter Model Nos.:	At the Hub Site: AA2-CN1-XX At the Remote Sites: AA2-EN-X

No. of Units:	At the Hub Site: 5 At the Remote Sites: 1 (per remote location) At the Mobile Location: 1
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**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 other stations may be licensed on these frequencies and 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 immediate shut down and the discontinuance of operation. Tarana Wireless also understands that it must maintain separation from the grandfathered earth stations as defined in Part 90 subpart Z, or coordinate an agreement with the grandfathered earth

station licensees in the area prior to operation in 3650-3670 MHz. In addition, Tarana Wireless understands that its experimental operations must not cause harmful interference to any existing registered stations in 3650-3700 MHz, and notify the registered users in the area prior to accessing to 3650-3670 MHz.

Tarana Wireless will also 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 Experimental License as requested is in the public interest, convenience, and necessity. Grant of an experimental license will permit them to develop innovative equipment that will accommodate the communications needs of users.

**G. Contact Information:**

For questions about this application, please contact:

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1776 K Street, N.W.  
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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  
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