

NARRATIVE STATEMENT

Pursuant to Sections 5.3 (e), (f), and (h), 5.51 and 5.53 of the Federal Communications Commission (“FCC”) rules, 47 C.F.R. §§ 5.3 (e), (f) & (h), 5.51, 5.53 (2014), Tarana Wireless Inc. hereby respectfully requests experimental authority to operate to operate in the 3550-3700 MHz band for the purpose of evaluating and demonstrating the functionality and performance of prototype devices under design and development.

Grant of this application would serve: (1) to replace the existing special temporary authorizations (“STAs”) issued to Tarana Wireless for experimentation granted under File Nos. 0406-EX-ST-2015 and 0544-EX-ST-2015, call sign WI9XNO, for operations in the 3650-3700 MHz band near Santa Clara and Laos Angeles, California. The technical parameters specified in this application are identical to those authorized under the above-referenced STAs, except for the inclusion of spectrum below 3650 MHz. In addition, this application seeks to add experimental locations near Berkeley, California.

As provided under Section 5.61(c) of the Commission’s rules, 47 C.F.R. § 5.61(c) (2014), this application is also intended to serve as a continuance or extension of the authority granted to Tarana Wireless, to the extent permitted under the above-referenced STAs pending action on this application. Tarana Wireless understands that such continuance or extension applies only to the locations and spectrum band (*i.e.*, the 3650-3700 MHz) as authorized and as conditioned under those STAs and that it must await action on this application for a regular license before it may operate at the additional locations, or on the additional spectrum, or in any manner proposed in this application that is at variance with operations authorized or conditioned under the STAs. The extension is necessary to allow Tarana Wireless to continue its tests pending Commission action on this application.

A. Purpose of Operation and Need for Experimental License:

Tarana Wireless is designing and developing equipment that will operate in the 3550-3700 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 (2014), 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. In addition, 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. Locations and Antenna Specifications of Proposed Operations:

Attached under Exhibit A is a list of the sites and antenna specifications of the locations proposed under this application.

C. Technical Specifications:

1. Frequencies Desired

Tarana Wireless requests an experimental license to operate in the 3550-3700 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 (2014). All power levels will comply with the limits set forth in the FCC's rules, including those relating to human exposure to radiation.

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 Sites: AA2-CN1-XX At the Remote Sites: AA2-EN-XX
No. of Units:	At each Hub Site: not more than 4 At each Remote Site: not more than 2

D. 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.

E. 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.

F. 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
Facsimile: (202) 719-7207
Email: kdesoto@wileyrein.com

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
Telephone: (408) 888-9071
Email: rakesh@taranawireless.com

EXHIBIT A
LIST OF LOCATIONS AND ANTENNA SPECIFICATIONS

Santa Clara Locations (as authorized under 0544-EX-ST-2015, call sign WI9XNO)

Hub Location A:

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 6 for Hub Location A:

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 1 for Hub Location A:

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 7 for Hub Location A:

1130 Mountain View 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 2 for Hub Location A:

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 3 for Hub Location A:

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 4 for Hub Location A:

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 5 for Hub Location A:

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

LA Area Locations (as authorized under 0406-EX-ST-2015, call sign WI9XNO)

Hub Location B:

2555 Briarcrest Road, Beverly Hills, CA
Lat. Long.: 34-07-08 N; 118-23-31 W (NAD83)
Ground Elevation: 472 meters AMSL
Building/Antenna Structure Height: 12 meters AGL
Antenna Height to Tip: 15 meters AGL
Center of Radiation: 11 meters AGL

Remote Site 1 for Hub Location B:

8144 1/2 Mulholland Drive, Los Angeles, CA
Lat. Long.: 34-07-18 N; 118-22-33 W (NAD83)
Ground Elevation: 336 meters AMSL
Building/Antenna Structure Height: 6 meters AGL
Antenna Height to Tip: 9 meters AGL
Center of Radiation: 5 meters AGL

Remote Site 2 for Hub Location B:

1825 1/2 Laurel Canyon Blvd, Los Angeles, CA
Lat. Long.: 34-06-18 N; 118-22-01 W (NAD83)
Ground Elevation: 162 meters AMSL
Building/Antenna Structure Height: 6 meters AGL
Antenna Height to Tip: 9 meters AGL
Center of Radiation: 5 meters AGL

Hub Location C:

2400 San Dimas Canyon Road, Le Verne, CA
Lat. Long.: 34-06-18 N; 117-47-33 W (NAD83)
Ground Elevation: 318 meters AMSL
Building/Antenna Structure Height: 8 meters AGL
Antenna Height to Tip: 11 meters AGL
Center of Radiation: 7 meters AGL

Remote Site 1 for Hub Location C:

6300 Country Club Drive, Le Verne, CA
Lat. Long.: 34-06-18 N; 117-46-03 W (NAD83)
Ground Elevation: 422 meters AMSL
Building/Antenna Structure Height: 8 meters AGL
Antenna Height to Tip: 11 meters AGL
Center of Radiation: 7 meters AGL

Berkeley Locations (new locations)

Hub Location D:

2300 Shattuck Ave, Berkeley, CA (CVS site)
Lat. Long.: 37-52-02 N; 122-16-05 W
Ground Elevation: 15 meters AMSL
Building/Antenna Structure Height: 2 meters AGL
Antenna Height to Tip: 17 meters AGL
Center of Radiation: 16 meters AGL

Remote Site 1 for Hub Location D:

2108 Allston Way, Berkeley, CA (BWRC site)
Lat. Long.: 37-52-09 N; 122-16-03 W
Ground Elevation: 9 meters AMSL
Building/Antenna Structure Height: 2 meters AGL
Antenna Height to Tip: 11 meters AGL
Center of Radiation: 10 meters AGL

Remote Site 2 for Hub Location D:

2710 Bancroft Way, Berkeley, CA (Sigma site)
Lat. Long.: 37-52-08 N; 122-15-14 W
Ground Elevation: 10 meters AMSL
Building/Antenna Structure Height: 2 meters AGL
Antenna Height to Tip: 11 meters AGL
Center of Radiation: 10 meters AGL

Remote Site 3 for Hub Location D:

1625 Shattuck Ave, Berkeley, CA (Shams site)
Lat. Long.: 37-52-38 N; 122-16-06 W
Ground Elevation: 12 meters AMSL
Building/Antenna Structure Height: 2 meters AGL
Antenna Height to Tip: 13 meters AGL
Center of Radiation: 12 meters AGL

Remote Site 4 for Hub Location D:

2105 Martin Luther King Junior Way, Berkeley, CA (MLK site)
Lat. Long.: 37-52-12 N; 122-16-20 W
Ground Elevation: 7 meters AMSL
Building/Antenna Structure Height: 7 meters AGL
Antenna Height to Tip: 8 meters AGL
Center of Radiation: 7 meters AGL

Hub Location E:

Cory Hall, Berkeley, CA (Cory site)
Lat. Long.: 37-52-30 N; 122-15-28 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 Remote Site 1 for

Remote Site 1 for Hub Location E:

2108 Allston Way, Berkeley, CA (BWRC site)
Lat. Long.: 37-52-09 N; 122-16-03 W
Ground Elevation: 9 meters AMSL
Building/Antenna Structure Height: 2 meters AGL
Antenna Height to Tip: 11 meters AGL
Center of Radiation: 10 meters AGL

Remote Site 2 for Hub Location E:

2710 Bancroft Way, Berkeley, CA (Sigma site)
Lat. Long.: 37-52-08 N; 122-15-14 W
Ground Elevation: 10 meters AMSL
Building/Antenna Structure Height: 2 meters AGL
Antenna Height to Tip: 11 meters AGL
Center of Radiation: 10 meters AGL

Remote Site 3 for Hub Location E:

1625 Shattuck Ave, Berkeley, CA (Shams site)
Lat. Long.: 37-52-38 N; 122-16-06 W
Ground Elevation: 12 meters AMSL
Building/Antenna Structure Height: 2 meters AGL
Antenna Height to Tip: 13 meters AGL
Center of Radiation: 12 meters AGL

Remote Site 4 for Hub Location E:

2105 Martin Luther King Junior Way, Berkeley, CA (MLK site)
Lat. Long.: 37-52-12 N; 122-16-20 W
Ground Elevation: 7 meters AMSL
Building/Antenna Structure Height: 7 meters AGL
Antenna Height to Tip: 8 meters AGL
Center of Radiation: 7 meters AGL