

Wisper ISP, Inc.
Statement in Support of Experimental Special Temporary Authority Application

Wisper ISP, Inc. (“Wisper”), pursuant to Section 5.63(c)(1) of the Commission’s Rules, provides this statement in support of its application for experimental Special Temporary Authority (“STA”) to conduct a second phase of a technology trial using frequencies within the 3300-3550 MHz and 3650-3800 MHz bands transmitting from a location in Mascoutah, Illinois. In the initial phase Wisper transmitted from two base stations to eight end users.¹ This new phase will continue testing using different equipment manufactured by Tarana Wireless, Inc. Wisper requests a six-month experimental STA term.

Equipment To Be Used

Manufacturer	Model Number	No. Of Units	Bandwidth	Experimental
Tarana Wireless, Inc.	AA3-BN-XX	2	80 MHz	Yes
Tarana Wireless, Inc.	AA3-RNF-XX	8	40 MHz	Yes

Description of Trial

Wisper plans to trial new equipment manufactured by Tarana Wireless, Inc. that has not yet been approved by the Commission. Wisper expects to concentrate its trial activities in the 3300-3550 and 3650-3800 MHz bands. Consistent with Part 90 rules, Wisper has designed the trial so that operations under the experimental STA are not likely to cause harmful interference to licensees. Wisper understands that its experimental STA operations are secondary and that it will cease operations if FSS earth stations or Part 90 licensees experience harmful interference.

Wisper will conduct the experiment in its existing area of operations near its headquarters in Mascoutah, Illinois. Wisper has access to and is transmitting from existing towers and operations in this area with personnel on site to monitor deployment and operation, which will ensure that there will be no harmful interference to registered FSS earth stations. Where necessary, Wisper will also use ground testing in lieu of tower testing to minimize any disruption to other registered FSS earth stations. Using ground testing will allow Wisper to target the signal emitted from the equipment to control any interference concerns.

In the initial phase of the trial, Wisper operated from two base locations. The proposed second phase will utilize a single base station location at 901 North 6th Street, Mascoutah, IL (38°29'57.07"N / 89°48'26.17"W). The antenna will be oriented at 225 degrees. Over the course of the experiment Wisper will use as many as eight 11-degree wide beams per location. The beams will operate at various azimuths within the full range of coverage of the base station antenna capability.

¹ Call Sign WO9XCY.

Program of Research and Experimentation

Wisper's initial working theory of operation (prior to conducting any testing) is that the Tarana technology can greatly increase overall capacity of fixed wireless networks that could enable higher data throughput to customers. Based on its examination of Tarana's technology, Wisper is optimistic that it represents an exponential leap in technology. The trial will determine the extent to which the Tarana technology is a true game-changer.

The trial will involve a total of eight end user locations. The trial is expected to inform Wisper's investment, equipment and deployment decisions in Tarana's new interference rejection modulation system, which has not been tested in the field for an extended period of time. If the trial is successful, Wisper believes that it will have a major impact on fixed wireless network technology, especially for non-line-of-sight operations, and will direct Wisper's future decisions with respect to Part 96 CBRS operations.

Wisper plans to deploy the Tarana technology for a period of six months. Wisper will carefully track important data in various configurations, such as capacity, speed, link budget, propagation (e.g., non-line-of-sight) and range to determine whether Tarana's technology offers a viable option for Wisper's commercial operations in mid-band spectrum.

Contribution to the Development, Extension, Expansion or Utilization of the Radio Art

Wisper's program of experimentation has a reasonable promise of contributing to the advancement of technology that could dramatically advance the consumer experience. Wisper's largely rural footprint also provides an ideal testing environment to demonstrate how valuable use of the equipment for terrestrial point-to-multipoint service could be to solving the urban-rural digital divide, a stated priority of this Commission.