Persistent Systems, LLC Form 442 Experimental License Application File No. 0898-EX-CN-2018

## NARRATIVE EXPLANATION OF OPERATION AND NATURE OF APPLICANT

Persistent Systems, LLC, a Limited Liability Company based in New York City, is an American manufacturer of high speed, secure data networking equipment for both military/defense and industrial, non-government applications. Principally, Persistent manufactures scalable mobile networking systems based on Wave Relay MANET (Mobile Ad Hoc Networking) Technology. Persistent's products permit voice, video, and situational awareness to mobile users with no reliance on fixed infrastructure. For more than a decade, Persistent has been a pioneer in developing advanced MANET technology and commercializing it in the Defense and Industrial sectors.

Persistent has in the past utilized Special Temporary Authority grants for research and development and testing of its products in different environments. The ongoing R&D activities to develop MANET products for Army and Navy deployment, however, necessitate a longer period of testing and deployment at its facilities in Fort Collins, Colorado. An identical Experimental license to that requested herein for the New York City area was granted recently. See, WJ2XTP, File No. 0518-EX-CN-2018. This is entirely terrestrial operation proposed to be conducted with respect to radio modules in the bands 2200-2290 MHz and 4435-4455 MHz which will be for MANET systems and component products for military deployment only. Though the center frequency 2277.00 MHz (with a 20 megahertz occupied bandwidth emission) is the preferred frequency within the band 2200-2290 MHz to provide a consistent benchmark for testing and evaluation in this environment, the frequency agility of the system and the data modules includes 2200-2290 MHz in 5 MHz steps. Frequency changes can be conducted remotely should the need to do so arise.

It is also proposed to conduct R&D proof of concept testing in the Fort Collins broadcast auxiliary market, for use and adaptation of the technology for video relay and broadcast auxiliary/video production purposes in the 2025-2110 MHz band. For testing in the 2025-2110 MHz band, all operation will be coordinated in advance with the Society of Broadcast Engineers' frequency coordinators and with the Department of Defense (which is currently arranging sharing with BAS/CARS/LTTS licensees in that band).

The stop buzzer contact for this operation is Ms. Temeasha Scott, RF Network Engineer at Persistent Systems, LLC in Fort Collins, who can be reached at 646-518-8966, or by mobile phone at 706-409-6820. Her e-mail address is <a href="mailto:tscott@persistentsystems.com">tscott@persistentsystems.com</a>