

Persistent Systems, LLC  
Request for Grant of Special Temporary Authority  
File No. 2412-EX-ST-2019

## NARRATIVE EXPLANATION OF OPERATION

Persistent Systems, LLC requests a grant of special temporary authorization for terrestrial-only testing and demonstration of a high speed data transmission system to fulfill a contract for the United States Navy at nine locations at and near Virginia Beach, Virginia. It is urgent to conduct point-to-point testing of embedded modules utilizing various embedded antennas to and from various locations within a 50-km radius of Virginia Beach, Virginia. The antennas will be both omnidirectional with between 3 and 8 dB of gain, directional antennas with 22 dB of gain, and sector antennas with up to 12 dB gain. The center frequencies at each location will be 2310 MHz, 2377 MHz, 4700 MHz and 4880 MHz with a 20 megahertz occupied bandwidth. Power levels will be either 6 or 10 watts TPO with ERP levels at either 6.50 W, 23.08 W, 38.46 W, 96.61 W or in the case of the directional antenna, 579.63 W. All of the transmit locations specified herein are each located on either of two Military installations, Joint Expeditionary Base Fort Story and Joint Expeditionary Base Little Creek, in Virginia Beach, most at fixed locations. Antenna heights will vary among less than 6 meters AGL, 12.19 meters AGL, 47.55 meters AGL and 106.68 meters AGL depending on location. In the technical portion of the application, the worst-case configuration is listed, but the attached spreadsheet shows all particulars.

Also attached are antenna site sketches of each location.

This application is very similar to one granted in early 2019. See, WO9XKF, File No. 0623-EX-ST-2019.

AFTRCC Coordination for the channel 2377 MHz has been applied for and coordination will be filed when received. It is understood that all operation pursuant to this STA is on a strict non-interference basis to Flight Test telecommunications and only terrestrial operation is proposed. The stop buzzer contact information will be provided to DODAFMIDLANT at least one week prior to commencement of STA operation.

Throughout the testing period, complete shutdown of all antennas can be accomplished immediately. Should any interference be reported, all testing and evaluations will cease immediately and will not resume unless and until all such interference is resolved to the reasonable satisfaction of the complainant.

The *stop buzzer contact for this operation is Mr. Anthony Maringo*, whose mobile number is 732-829-2805. Other questions should be directed to undersigned communications counsel, who can be reached as follows:

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