

June 4, 2013

Julie Knapp
Chief
Federal Communications Commission
Office of Engineering and Technology
445 12th Street, SW
Washington, DC 20554

RE: STA File Number: 0503-EX-ST-2013

Oceus Networks respectfully seeks a special temporary authority (STA) from the Federal Communications Commission (FCC) and the concurrence of the First Responder Network Authority (FirstNet) to operate in the 700 MHz band public safety broadband spectrum (FirstNet spectrum) on an experimental basis for use on the National Mall in Washington, D.C. Oceus Networks requests the STA on behalf of the United States Park Police (USPP) to demonstrate and test priority and preemption features of a 3GPP Band 14 (700 MHz public safety) Long Term Evolution (LTE) network. The USPP seeks to compare the performance of a Band 14 LTE network to an existing system that uses a commercial wireless service from two of the big four cellular providers to deliver video and other data to a USPP operation center. Oceus Networks seeks permission to use FirstNet spectrum to operate a single base station unit and directional antenna located atop a building across the river from the Lincoln Memorial in Arlington, VA. The antenna will be directed towards Washington, D.C. to cover the western portion of the National Mall from Independence Ave SW to the South, Constitution Ave NW to the North, and 9th St SW to the East (to the Smithsonian Institution's headquarters at 1000 Jefferson Dr SW).

Existing IP-based video cameras on the National Mall will send back data over the test network to an USPP operation center. USPP is looking to test capabilities of Band 14 LTE system during high volume events including the Fourth of July celebrations, events commemorating the 50th anniversary of the MLK "I Have a Dream" speech in August, and the Marine Corps Marathon at the end of October. USPP will coordinate and work with state and local public safety users as part of this testing.

The proposed project will conform to the following parameters:

- 1) **Bands and Testing Purpose:** Oceus Networks seeks an STA to conduct research trials using the 758-768/788-798 MHz public safety broadband spectrum bands, which are currently licensed on a nationwide basis to FirstNet. Priority, preemption, and performance

characteristics of a LTE wireless network will be observed. Oceus Networks will provide the operating equipment to facilitate this comparison to the USPP's existing commercial wireless carrier services.

- 2) **Dates of Operation:** Oceus Networks request the STA to support USPP testing efforts from June 24 – December 20, 2013.
- 3) **Equipment:** The test network will consist of base stations manufactured by Oceus Networks and portable LTE modem solutions from Motorola Solutions.
- 4) **Adjacent Band Interference:** We have analyzed information in the FCC's license databases and the proposed operation would not interfere or create a significant potential for harmful interference with any public safety operations operating in adjacent 700 MHz spectrum. We have performed (and passed) Out of Band Interference testing under the inspection of NTIA's Public Safety Communications Research Program (PSCR) to assure no harmful interference will occur to adjacent 700 MHz narrowband systems. PSCR personnel have not expressed concern that the proposed operation would interfere or create a significant potential for interference with any public safety operations in the 700 MHz band.
- 5) **Emergency Contact:** During the tests, Doug Sharp, Oceus Networks, the overall project manager and main point of contact for these tests can be reached and can execute a "stop button" immediately upon a report of interference. He is also the emergency contact, if during the test, the "stop button" must be initiated. His phone number is 720-373-1515 and email is dsharp@oceusnetworks.com.
- 6) **Network Operation For Experimentation Only:** This experiment is for research and evaluative purposes only. The experiment will not result in permanent, ongoing network operations. Operation of the experiment will not be used in mission-critical operations or in the delivery of live transmissions in duties to protect life, property, or safety. Video transmitted over the test network will duplicate existing functionality and will not be relied on to provide mission-critical services.
- 7) **State and Local Public Safety Engagement:** By the start of the tests, Oceus Networks and the USPP will have contacted the District of Columbia, the Commonwealth of Virginia, and other federal agencies operating in or potentially impacted by this test. The District of Columbia does not operate any legacy 700 MHz narrowband systems in the 700 MHz broadband public safety band and have raised no objections to the test network. Letters of support are filed in our STA application to that effect.

- 8) **Coordination with Virginia State Police To Ensure No Harmful Impact To STARS System:** The Virginia State Police operates its Statewide Agencies Radio System (“STARS”) 700 MHz narrowband system in the 700 MHz broadband public safety band. This system relies on 700 MHz digital vehicular repeater systems (DVRS) in over 3000 public safety vehicles to support portable based public safety communications. The base station involved in this testing will be placed on a building that is approximately 200 yards from the Virginia/District of Columbia border. While the testing will be primarily conducted in the District of Columbia, the possibility for interference exists with STARS for a small area that includes two major highways that run along the Potomac River. Oceus Networks is contacting the Virginia State Police and will closely coordinate its testing with them to ensure no impact to their systems occurs. Letters in support of this testing will be filed in our STA application. Oceus Networks understands that failure to obtain Virginia State Police agreement will prevent the FCC from grant an STA.
- 9) **STA Disclaimer:** Oceus Networks understand that this STA will be granted for no more than the 6 months requested. This STA will not be renewed. If additional demonstration time is needed, a new STA request will be submitted.
- 10) **Indemnification:** Oceus Networks agrees to and hold the First Responder Network Authority (“FirstNet”), NTIA, officers, agents and employees harmless from any liability, loss or damage that may occur from the completion of these tests. Oceus Networks certify that they carry an appropriate level of liability insurance coverage, in the unlikely event of a malfunction during the test, to cover any loss, liability claims, or damages.
- 11) **Narrowband Public Safety Operations In 700 MHz Broadband Spectrum:** Oceus Networks is in contact with the Virginia State Police on the use of the 700 MHz public safety broadband spectrum to operate its STARS system. (See paragraph 8). Oceus Networks research of the FCC ULS systems did not identify any other public safety entities licensed to operate legacy 700 MHz narrowband systems in the 700 MHz broadband public safety band that would be impacted by this test. Oceus Networks and the USPP have contacted local public safety officers in the District of Columbia and Arlington County, Virginia who have confirmed that they are not operating in these bands. They have signed letters of concurrence stating they do not object to these tests. These letters have been filed in the STA application request as exhibits.

Respectfully Submitted,

/s Doug Sharp

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