

August 28, 2015

The Federal Communications Commission 445 12th Street, SW Washington, DC 20554 Form 422 Conf. No.: EL904411 Form 442 File No.: 0557-EX-PL-2015

Submitted Electronically via ELS

To Whom It May Concern:

Parallel Wireless, Inc. hereby respectfully submits a request for an experimental license under 47 C.F.R. Part 5 (Experimental Radio Service). This letter is attached to the above-identified application according to FCC Form 422.

Parallel Wireless submits this application to operate fixed and mobile Band 14 devices at the site of the Milford Area Communications Center (MACC BASE), Milford, NH. The proposed term is September 1, 2015 to August 31, 2016. Grant of this experimental license application will enable Parallel Wireless to undertake product development, research and testing that supports FirstNet's goal to foster competition in the market for Band 14 network gear.

Parallel Wireless has previously submitted, and received, a Special Temporary Authority (STA) license, with file number 1159-EX-ST-2014, for similar devices deployed at the same sites.¹ As the experimental parameters have broadened, we now submit a new application with a 1-year term.

Approval of this license advances FirstNet by supporting vendors developing Band 14 products. FirstNet faces the challenge that developers see a small market of just 3 million first responders. It may be in FirstNet's interest to take aggressive steps to open testing to vendors.

Today, we believe that just two foreign and one domestic LTE equipment vendors have access to Band 14 testing in operational environments. These are Federally funded BTOP sites with long term license approvals which support developers of legacy technology. Parallel Wireless is the only domestic producer of key network components which is focused on FirstNet. Long term test permission is critical so we can meet FirstNet's requirements.

A proposed timeline follows, which is subject to change and to grant of the license.

Through August 31, 2016

NIST Public Safety Communications Researcher Dr. Rob Stafford, Principal Investigator, will collaborate with Parallel Wireless under the recently executed CRADA focused on deployables. Parallel will use MACC base pilot to test handoff between Parallel's Band 14 RAN (mobile CWS-203, fixed CWS-110) and carrier LTE services for backhaul.

Week of November 16, 2015

¹ Further information regarding the prior research is available on our website at <u>http://parallelwireless.com/2015/07/parallel-wireless-macc-base-field-trial/</u>.



New Jersey Office of Homeland Security Programs (NJ OHSP) to station their Band 14 equipped deployable vehicle (Cell on Wheels) to Russell-Abbot State Forest in New Hampshire. RAN power: 80 watt output.

Week of September 21, 2015

Sprint Emergency Response Team (ERT) will station their deployable vehicle at Russell Abbot State Forest in New Hampshire. ERT to provide satellite backhaul for Parallel Wireless Band 14 CWS-110. RAN power: 20 watt output.

Through September 30, 2015

Collaboration with the New Hampshire Dept. of Safety on rural engineering and budget models for Band 14 deployment.

Parallel Wireless is collaborating with many stakeholders allied with FirstNet's effort to build a national public safety broadband network (PSBN). Engagements with these parties are scheduled in 2015 and 2016 to cover:

- Propagation research covering LTE access over Band 14 employing backhaul from satellite, carrier LTE wired Internet and mesh backhaul.
- Propagation research for in-vehicle (police, EMS) and conventional deployables (dedicated COWs).
- Integration of hybrid carrier/Band 14 network with ATT, Verizon, US Cellular, Sprint, TMobile. In support of specifications released in FirstNet's draft RFP, Parallel is undertaking research on seamless handoff in a hybrid carrier/Band 14 network.
- Propagation testing across a twelve month cycle accounting for annual foliage and climate variation.
- Integration with local, regional, national and virtual LTE evolved packet cores (EPCs).
- Research on adoption by public safety personnel of Band 14 applications, including push-to-talk, real time video, file transfer, force locator.

Applicant welcomes any comments or questions from the Commission, either to Michael Saji, Director, Intellectual Property at the contact information below, or to Steve Kropper, Vice President, at skropper@parallelwireless.com.

Best Regards,

/s/ Michael Y. Saji

Director, Intellectual Property and Corporate Counsel <u>msaji@parallelwireless.com</u> 1-603-589-9937 x268