

May 31, 2013

Mr. Samuel Ginn
Chairman FirstNet
National Telecommunications and
Information Administration
1401 Constitution Avenue, N.W.
Washington, DC 20230

Re: *FCC STA File No. 0331-EX-PL-2013*

Dear Chairman Ginn:

Raytheon respectfully requests that FirstNet in conjunction with the Federal Communications Commission ("FCC") allow us to operate in the 700 MHz Public Safety spectrum to demonstrate and test Long Term Evolution ("LTE") equipment and devices at its Downey, California ("Downey") laboratory from July 1, 2013 to June 30, 2014. We specifically seek authority to use the 700 MHz Band 14 spectrum, 763-768/793-798 and 758-763/788-793.

Raytheon has provided specific details of the requested need for the demonstration and use of the 700 MHz Band 14 for a twelve month period in its Form 442 application for experimental radio service (other than broadcast) (FCC File No. 0331-EX-PL-2013) filed on May 31, 2013. Our demonstration network is installed in the Raytheon Public Safety Regional Technology Center ("RTC") in Downey for use in developing LTE network capabilities and applications to demonstrate to the Los Angeles first responder community the benefits of LTE public safety broadband. In addition, the RTC is collaborating with academia via the University of California Los Angeles to ensure that our first responders are provided with an academic testing environment.

The demonstration system consists of an Alcatel Lucent ("ALU") Model 9412 Base Station ("eNodeB") that includes a stand-alone simulated evolved packet core ("ePC") and three transmit receive duplexer units ("TRDUs"). The three sector base station capability will be distributed among outdoor and indoor antennas to provide demonstration coverage internal to the RTC within a 2 km radius of the Downey RTC facility. The planned demonstrations will be performed with small low power user devices, such as the LG G14 LTE USB modem.

Initially, Raytheon teamed with ALU at the Downey RTC and in so doing, ALU acquired a previous STA for operation at this site that expired on May 2, 2012. Raytheon now seeks a longer term experimental license for continued use of the Downey RTC as a laboratory that will now be multi-vendor inclusive. The Downey RTC demonstration system will not be used for mission-critical operations or in the delivery of live transmissions in duties to protect life, property or safety. The equipment being used will be limited to a base station with an associated antennae and a small number of portable units, as described above and in our experimental license application.

In addition, Raytheon has analyzed the Information from the FCC ULS database and it has been determined that the proposed Downey RTC demonstration network will not interfere or create a significant potential for interference with any public safety or commercial operations in the 700 MHz

band, as there is no other known entity or operation of use of the spectrum that exists near the Downey location at this time. Raytheon seeks grant of use of the 700 MHz Band 14 spectrum via an experimental license for initial period of twelve months, starting July 2013, as allowed for under the FCC's rules. Should further operation be desired past the June 2014 expiration date, Raytheon will seek renewal of the experimental license. The undersigned has been designated as the project manager and as such, he can be contacted at any time to terminate operations should that be required by FirstNet.

Finally, the sole purpose of creating a multi-vendor environment is to ensure that the public safety community will benefit from state of the art broadband equipment, devices and applications in order to ensure our nation's first responders have a best in class LTE broadband network. Best in class requires rigorous testing and industry and academia participation, which the Downey laboratory will provide. Thus, we believe that it is in the best interest of public safety and the public interest as a whole to grant Raytheon's application for the experimental license.

Respectfully submitted,

Greg A. Noneman
Sr. Systems Engineer
Raytheon Network Centric Systems

CC: Genaro Fullano, FCC
Regina Harrison, NTIA