

1 February 2013

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

Re: *STA File No. 0069-EX-ST-2013*

Dear Mr. Knapp:

Raytheon respectfully requests that the Federal Communications Commission ("FCC") in conjunction with FirstNet allow operation 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 March 1st to September 1, 2013. 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 six month period in its application for special temporary authority ("STA") (FCC File No. 0069-EX-ST-2013) filed on January 28, 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 Model 9412 Base Station ("eNodeB") that includes a stand-alone simulated evolved packet core (ePC) and three transmit receive duplexers ("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.

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 STA. 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.

Initially, Raytheon teamed with Alcatel-Lucent ("ALU") at the Downey RTC and in so doing, ALU acquired the previous STA for operation at this site that expired on May 2, 2012, and Raytheon now seeks an STA for use at the Downey RTC as the demonstration network will now be multi-vendor

inclusive. In addition, 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 STA for a limited period of six months, March 1st to September 1, 2013, as allowed for under the FCC's rules. We will adhere to the FCC's authority to not automatically renew the aforementioned STA, but rather seek another STA for six months after September 1, 2013 in order to continue operations.

Respectfully submitted,

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

CC: Genaro Fullano, FCC
Regina Harrison, NTIA