

From: Mike Elmer

To: Behnam Ghaffari

Date: October 20, 2014

Subject: FCC File No. 0860-EX-ST-2014

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Message:

In general, we do not anticipate that our system will be a source of interference for GPS receivers. We are transmitting a relatively low power (1W), across a wide band (~1200 MHz), with a low duty cycle (0.42). Our system is only transmitting periodically (a few minutes at a time, possible totaling 2-3 hours in a single day), and is located on a moving airborne platform (between 3000-6000 ft AGL), which will minimize the time that a GPS receiver could possibly detect an increased noise floor (decreased SNR) due to our transmissions. GPS receivers are much more narrowband so they will only collect a small portion of our total transmitted power. If necessary, our system is capable of notching specified frequency bands, which further attenuates our transmitted signal by about 20 dBm. Plots are attached, which show calculated incident power levels seen at a GPS receiver for the worst case scenario of direct line of site transmission from our system.