

From: Edward Simons

To: Behnam Ghaffari

Date: December 14, 2015

Subject: FCC File No. 0317-EX-RR-2015

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Message:

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Please see answers below in reply to FCC's questions of December 2, 2015 with regard to the frequencies 2267.71653500, 2283.464567, 2285.714286, and 2299.212598 (all in MHz):

1. Actual transmit power before antenna is 2700 Watts.
2. Transmit antenna gain is 38 dBi and is oriented at 147 degrees from true North.
3. 116 MHz is really a worst case. The pulse width is variable and can be set as small as 10 nS, but typical pulse widths are 50 – 55 nS which equate to 18 MHz.
4. Yes, the site is in an extremely remote area of ranch land and is surrounded by dense trees. The site is on 4600 acres (roughly 2.5 miles by 3 miles).
5. A test collection typically takes 1 hour in which time the radar is continually sweeping frequency across several radar bands. Each frequency band (typically 128 or 256 frequencies) are pulsed at a PRF of 50 – 70 KHz. Therefore each frequency will be transmitted at roughly 550 Hz (using 70 KHz PRF and 128 frequencies). This represents a total transmit time for any given frequency of 0.1 seconds for a 50 nS PW during a test collection period. A typical test day would consist of approximately 6 hours of test runs, which would represent 0.6 seconds per day for a given frequency. Typically the site might test for less than 100 days, so the frequencies in question would be used for 60 seconds.