

Exhibit 1

Caterpillar of Delaware, Inc. requests FCC approval of an experimental license for a radar system. The radar consists of two main component parts, a Frequency Modulated Continuous Wave (FMCW) transmitter and receiver. The transmitter operates at a center frequency of 77 GHz with an operating band of 1 GHz. The transmitter is a Gunn oscillator which delivers +13 dBm to the antenna ports. The system has two separate antennas (one for transmit and the other for receive). The gain of the antennas is less than 40 dBi. The transmitter thus has an effective radiated power (ERP) of 53 dBm. The transmitter is continually swept over a 400 MHz bandwidth within the operating band.

The local oscillator signal for the receiver is at the same frequency as the transmitter and will have a radiated power from the receiver of less than -15 dBm into the antenna port.

The objective of the research is to develop the system for operation throughout the United States.