

STA Justification:

“From 2014 to 2016 an average of 18,779 [yearly] fatalities resulted from roadway departure, which is 53 percent of all the traffic fatalities in the United States”<sup>1</sup> Localizing Ground Penetrating Radar, as an independent method of localization, offers the ability to improve current lanekeeping system failure rates by several orders of magnitude when combined with existing approaches. WaveSense has licensed this fundamental safety technology from MIT Lincoln Laboratory and is respectfully requesting permission to operate the prototype system within the requested bands as part of a 6 month effort to develop a commercial FCC part 15 compliant version of the system. This application is a precautionary extension to the original effort to allow completion and testing of the design.

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<sup>1</sup> [https://safety.fhwa.dot.gov/roadway\\_dept/](https://safety.fhwa.dot.gov/roadway_dept/)