

QUESTION 7: PURPOSE OF EXPERIMENT

In its 6 GHz Report & Order, the Federal Communications Commission designated additional spectrum in the 6 GHz band for unlicensed operation with the goal of “making broadband connectivity available to all Americans, especially those in rural and underserved areas.”¹ Big Bend Telecom, LTD, (“Big Bend”), a rural broadband carrier in Western Texas, is applying for this experimental license in order to test currently available equipment and evaluate the greater throughput capabilities available within the 6 GHz band. Specifically, Big Bend is requesting use of the frequencies between 6.00 – 6.20 GHz. Upon grant of this experimental license, Big Bend will be able to increase capacity and expand its fixed wireless broadband offerings to customers in rural West Texas. Testing of this additional spectrum and associated equipment is critical to Big Bend’s goal of meeting the capacity demands of its customers in rural Texas who have few, if any, alternative Internet service options.

Big Bend’s requested experimental operations will involve deployment and testing of Mimosa Networks’ 6 GHz radio technology on the following structures:

- 1) McCamey, Texas (Upton County) at 31.132137, -102.226329
- 2) McCamey, Texas (Upton County) at 31.117009, -102.213312
- 3) Fort Davis, Texas (Jeff Davis) at 30.572170, -103.871397
- 4) Fort Davis, Texas (Jeff Davis) at 30.624884, -103.977620
- 5) Alpine, Texas (Brewster County) at 30.350157, -103.658329
- 6) Alpine, Texas (Brewster County) at 30.367582, -103.729605
- 7) Alpine, Texas (Brewster County) at 30.368804, -103.753426 40
- 8) Fort Stockton, Texas (Pecos County) at 30.927146, -102.868639
- 9) Fort Stockton, Texas (Pecos County) at 30.890147, -102.882591
- 10) Fort Stockton, Texas (Pecos County) at 30.876028 -102.925269
- 11) Marfa, Texas (Presidio County) at 30.311732, -104.013585

Big Bend proposes to deploy point-to-point operation from these structure and tower sites with a 16 kilometer radius of operation for each. Big Bend’s proposed experimental operations will reach approximately 2,878 potential customer premise equipment units. The antenna gain for the CPE within the 16 kilometer radius of operation will be 25 dBi. The antenna gain for the proposed antennas on the fixed pole locations, which will be used as outdoor standard power access points, will be 24 dBi.

¹ *In re Unlicensed Use of the 6 GHz Band; Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*, Report and Order and Further Notice of Proposed Rulemaking, ET Docket No. 18-295, 35 FCC Rcd 3852, 3853 (2020)(“6 GHz Report & Order”).

Big Bend's operations will not cause harmful interference to incumbent users. Big Bend will work with any nearby licensed incumbents that it identifies, based on information provided in the FCC's databases, to ensure its operations will avoid any harmful interference. This proposed license will be used for experimental purposes with existing customers.