



Before the  
**Federal Communications Commission**  
Washington DC 20554

In the Matter of		
Amendment of Part 101 of the		WT Docket No. 07-54
Commission's Rules to Modify Antenna		RM-11043
Requirements for the 10.7 – 11.7 GHz Band		

**REPLY COMMENTS OF FIBERTOWER CORPORATION**

FiberTower Corporation respectfully submits these reply comments in the above-captioned proceeding.<sup>1</sup>

**A. The Fixed Service Supports the NPRM**

As the original proponent of this rulemaking, FiberTower notes that nearly all of the Fixed Service interests in the proceeding support the Commission's proposal for 0.61 meter (two-foot) antennas in the 10.7-11.7 GHz fixed service band.

Comsearch, the leading frequency coordinator for the Fixed Service, "agree[s] that allowing Fixed Service operators to use smaller antennas would enhance the efficient use of the 11 GHz band and that smaller antennas may be allowed in such a way as to protect other users from interference."<sup>2</sup>

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<sup>1</sup> *Amendment of Part 101 of the Commission's Rules*, WT Docket No. 07-54, Notice of Proposed Rulemaking, FCC 07-38 (released March 27, 2007) (NPRM).

<sup>2</sup> Comsearch at 1. Although FiberTower and Comsearch agree that special coordination rules are needed to protect four-foot users and satellite earth stations, we have proposed different mechanisms. Several industry participants are engaged in efforts to arrive at a common position. In the meantime, and unless FiberTower notifies the Commission otherwise, it stands by the approach set out in its Comments of May 25, 2007, and the Appendix thereto.

Ericsson Inc states: "[The proposed] modifications facilitate the efficient use of the 11GHz band [and] the use of smaller antennas in the 11GHz band will not materially increase the risk of interference to other operators licensed in the band[.]"<sup>3</sup>

According to Conterra Ultra Broadband, LLC, "the smaller antennas cost less to manufacture distribute, install and maintain, and these smaller and less heavy antennas would encourage installation of FS antennas in locations incapable of supporting 1.22 Meter antennas."<sup>4</sup>

Alcatel-Lucent, a leading manufacturer of equipment for this band (among others) notes, "[P]ermitting the use of smaller antennas will encourage more efficient use of spectrum and will ultimately lower costs for end users by allowing for the deployment of additional microwave links at space- and weight-limited facilities that were previously unavailable."<sup>5</sup>

Telecon Transport Management, Inc., which markets microwave transport services to mobile wireless carriers, finds, "Two-foot antennas will permit TTM to use the 11 GHZ band more efficiently and effectively. The reduced size of these antennas will permit TTM to install them in a variety of locations that would be inaccessible to four-foot antennas."<sup>6</sup>

The Fixed Wireless Communications Coalition, whose membership includes manufacturers of microwave equipment, licensees of terrestrial fixed microwave systems and their associations, and communications service providers and their associations, argues that the

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<sup>3</sup> Ericsson at 2. Ericsson goes on to argue that the technical performance of two-foot antennas is sufficiently close to the present standards that no special coordination rules are needed. *Id.* at 4-9.

<sup>4</sup> Conterra Ultra Broadband at 6 (citation footnote omitted).

<sup>5</sup> Alcatel-Lucent at 3.

<sup>6</sup> Telecon Transport Management at 3.

proposed rule change "will help ensure that the 11 GHz Band can be used more intensely in several ways" due to lower cost, smaller size, and easier installation, while "[t]he impact of the use of smaller antennas in the 11 GHz Band will likely be minimal."<sup>7</sup>

No party alleges that smaller antennas would increase interference to Fixed Service users.

**B. Opposition to the NPRM Is Not Well Founded.**

Union Telephone Company, which provides telephone and cellular service to mostly rural customers in Wyoming, Colorado, and Utah, is concerned that proliferating small antennas might not leave enough spectrum available for the high-capacity, medium- to long-distance links needed by rural carriers.<sup>8</sup> In the alternative to banning small antennas, Union Telephone suggests unspecified limitations as to path length or EIRP, or restriction to urban areas.<sup>9</sup>

As a leading backhaul provider, FiberTower concurs with Union Telephone on the need for long-link spectrum in rural areas. Yet FiberTower has determined from its own experience that no special rules are needed to preserve such spectrum. FiberTower has yet to experience a situation where 11 GHz spectrum is unavailable for coordination in a rural area. We do not know of any technical studies indicating that 11GHz exhaustion appears likely in rural areas in the near term, mid-term, or long term. Rural areas generally present insufficient demand for 11 GHz spectrum to trigger a shortage, regardless of the antenna sizes permitted. Moreover, the need for two-foot antennas arises primarily on built-up structures in built-up areas, especially

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<sup>7</sup> Fixed Wireless Communications Coalition at 4-5 (citation footnote omitted).

<sup>8</sup> Union Telephone at 1, 3-4.

<sup>9</sup> Union Telephone at 4. Union Telephone also proposes retaining the current standards in the rules for reference. *Id.* FiberTower agrees. *See* Comments of FiberTower Corporation at 3 (filed May 25, 2007).

where restrictive zoning applies. Small antennas are unlikely to find much use in rural areas, even without special rules; but rural carriers should be able to use them where needed. Rules to the contrary would, in effect, hold spectrum out of service against speculative future demand -- never an efficient way to manage this important resource.

Mobile Satellite Ventures Subsidiary LLC (MSV) does not oppose two-foot Fixed Service antennas in the 11 GHz band so long as the coordination rules offer its earth stations the same protection as from four-foot antennas.<sup>10</sup> FiberTower has proposed such rules.<sup>11</sup>

MSV further seeks a 60-90 day time limit on the Commission's resolution of interference complaints from earth station operators.<sup>12</sup> FiberTower does not agree with the need for such a rule. Occurrences of actual interference are exceedingly rare, due to the conservative assumptions underling coordination calculations. Moreover, there is no reason to expect that the use of small antennas will add to the unusual cases in which coordination calculations underestimate actual interference. Although a time limit on resolving complaints of measured interference is not in itself objectionable, MSV does not present any real-world data to justify the need.

Intelsat raises two objections to two-foot antennas: that increased Fixed Service use of the 11 GHz band may cause aggregate interference to earth station antennas, even if individual antennas do not create a problem; and that smaller antennas may lead to pointing error.<sup>13</sup>

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<sup>10</sup> Mobile Satellite Ventures at 3.

<sup>11</sup> Comments of FiberTower Corporation at 2-3 and Appendix (filed May 25, 2007).

<sup>12</sup> Mobile Satellite Ventures at 4.

<sup>13</sup> Intelsat at 3-4.

Comsearch, which is very experienced in frequency coordinating both the Fixed Service and the Fixed Satellite Service in this band, has responded to both issues in detail.<sup>14</sup> FiberTower agrees with and adopts Comsearch's views.

Finally Intelsat proposes segmenting the 11 GHz band between Fixed Service and satellite operations.<sup>15</sup> FiberTower strongly opposes. The proposal goes far beyond the horizon of this proceeding, failing all tests under the Administrative Procedure Act relating to notice and comment.<sup>16</sup>

### CONCLUSION

For the reasons given above and in its May 25 Comments, FiberTower asks the Commission to adopt the proposed rules, modified to accommodate compliant antennas that are smaller than 1.22 meters.

Respectfully submitted,

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June 21, 2007.

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<sup>14</sup> Comsearch at 5-6.

<sup>15</sup> Intelsat at 6-7.

<sup>16</sup> 5 U.S.C. Sec. 553. *See American Medical Ass'n v. Reno*, 57 F.3d 1129, 1132 (D.C. Cir. 1995); *Connecticut Light and Power Co. v. Nuclear Regulatory Comm'n*, 673 F.2d 525, 530 (D.C. Cir. 1982), *cert. denied*, 459 U.S. 835 (1982); *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 55 (D.C. Cir. 1977), *cert. denied*, 434 U.S. 829 (1977).

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