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Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street SW
Washington DC 20554

Re: WT Docket No. 10-153, *Amendment of Part 101 to Facilitate Wireless Backhaul*
Ex Parte Communication

Dear Ms. Dortch:

On behalf of the Fixed Wireless Communications Coalition (FWCC),[1] pursuant to Section 1.1206(b)(2) of the Commission's Rules, I am electronically filing this notice of an oral *ex parte* communication in the above-referenced docket.

Yesterday, Larrie Sutliff and Brian Benison, both of AT&T, Chris Hardy and Will Perkins, both of Comsearch, and Christine Goepp of this firm and I, jointly representing the FWCC, met with Chris Andes (by teleconference), Steve Buenzow, John Leibovitz, Charles Oliver, John Schauble, Blaise Scinto, Melissa Glidden Tye, and Brian Wondrack of the Commission staff.

[1] The FWCC is a coalition of companies, associations, and individuals interested in the Fixed Service—i.e., in terrestrial fixed microwave communications. Our membership includes manufacturers of microwave equipment, fixed microwave engineering firms, licensees of terrestrial fixed microwave systems and their associations, and communications service providers and their associations. The membership also includes railroads, public utilities, petroleum and pipeline entities, public safety agencies, cable TV providers, backhaul providers, and/or their respective associations, communications carriers, and telecom attorneys and engineers. Our members build, install, and use both licensed and unlicensed point-to-point, point-to-multipoint, and other fixed wireless systems, in frequency bands from 900 MHz to 95 GHz. For more information, see www.fwcc.us.

We presented the points summarized below.

Efficiency standards in rural areas

The FWCC is not aware of specific cases in which the present efficiency standards hinder the construction or operation of links in rural areas. The Commission's new rule allowing adaptive modulation, together with the Comsearch proposal for Category B2 antennas, will allow longer links and bring down costs. The FWCC does not see a need for further action at this time.

The Commission should **not** adopt its proposal to apply efficiency standards only when a Category A antenna is required, as this would create an added incentive for the use of inferior antennas. There is also a class of antennas, often used in dense urban areas, having highly directive radiation patterns that narrowly miss qualifying for Category A. These rarely require upgrades to Category A, yet under the Commission's proposal they would trigger complete deregulation as to spectrum efficiency.

If the Commission nonetheless sees a need to relax the efficiency rules, it should lower the percentage loading requirement, but should leave the minimum payload capacity unchanged.

The FWCC counsels against defining rural areas purely in terms of population density, as some remote mountaintop sites nonetheless have a high degree of microwave congestion. The FWCC will attempt to develop a "trigger," perhaps based on some intersection of population density, microwave congestion, and antenna category, that the Commission might use as a criterion for lower efficiency standards without creating unfavorable incentives. Such a provision should include some sort of periodic review, as rural areas can lose that status with the passage of time.

Antenna standards

The Section 101.115 antenna standards are due for an overhaul in light of advancing antenna technologies. The FCC should issue an NPRM to solicit industry input. Alternate global standards, such as ETSI, should be among the proposals considered. The NPRM should specifically address the need for standards applicable to non-parabolic antenna designs. Ideally a common set of standards would apply to all types of antennas.

In the meantime, the Commission should adopt Comsearch's proposal for "Category B2" antennas. These standards should appear in the rules as an option *in addition to* the present Category B, not as a replacement for the present Category B.

The FWCC opposes a composite standard, composed of the more lenient of B and B2 in each respect and at every angle, as that would allow the deployment of grossly inferior antennas.

Antennas smaller than those in the current rules, including the proposed B2 antennas, should be subject to a maximum power limit of 65 dBm EIRP. In the interest of spectrum efficiency, this will limit the ability of link designers to make up for lack of directionality by increasing power.

Combining adjacent channels in the 6 and 11 GHz bands

The FWCC believes the Commission should condition the "stacking" of adjacent channels at 6 and 11 GHz on the limitations proposed by the National Spectrum Management Association (docket RM-11602, filed Aug. 6, 2010). Those are:

- a showing of necessity;
- link designs initiated in certain preference slots, for example, starting at one of the band edges, so all licensees would first attempt use of these channels on the same frequencies;
- minimum payload requirements scaled to the higher capacity capabilities of the wider bandwidth channels; and
- appropriate loading requirements scaled to the wider bandwidth channels, perhaps with the percentage increased somewhat to reflect the potentially increased impact on other users.

Converting Part 101 efficiency standards to bits/sec/Hz

The FWCC supports changing the payload capacity requirements of Section 101.141 to a bits/sec/Hz standard. As a starting point, the FWCC proposes the Industry Canada standards (provided in FWCC comments of Oct. 4, 2010, with extrapolations to the 7 and 13 GHz bands).

The FWCC noted some advantage to a flat bits/sec/Hz standard for each frequency band, independent of bandwidth. For maximum efficiency, however, the Commission may want to specify higher bits/sec/Hz levels for wider bandwidths. (Owing to the need to protect band edges, a higher bandwidth makes productive use of a larger fraction of the nominal bandwidth, and so can carry more data per hertz across the band.)

* * * *

Please contact me with any questions.

Respectfully submitted

Mitchell Lazarus
Counsel for the Fixed Wireless
Communications Coalition

cc: Meeting participants