Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of the Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands	)	ET Docket No. 95-183 RM-8553
Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, 37.0-38.6 GHz and 38.6-40.0 GHz Bands	)	PP Docket No. 93-253

REPLY COMMENTS OF THE FIXED WIRELESS COMMUNICATIONS COALITION

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I. INTRODUCTION

The Fixed Wireless Communications Coalition ("FWCC") files these reply comments in response to the Third Notice of Proposed Rulemaking in the above-captioned proceeding.[1]

II. COMMENTS

A. First Avenue Networks' Comments on Timeliness of Licensing

The FWCC supports the comments of First Avenue Networks ("FAN"). The FWCC agrees that it may not be in the public interest to proceed with licensing of the 37 GHz band at the present time. As FAN stated, licensees in the 39 GHz band have had, and continue to have, a

[1] *Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, 19 FCC Rcd. 8232 (2004) (hereinafter NPRM). 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, 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, and/or their respective associations, landline and wireless, local, and interexchange carriers, and telecommunications 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.

difficult time in providing carrier type services as a successful business.[2] Use of secondary market opportunities to maximize the potential of their licenses will be impaired by the provision to the marketplace of additional spectrum having similar characteristics. There appears to be no present demand for this additional spectrum that cannot be met by using the 24, 28, 31, and 39 GHz bands. We therefore agree that it is not in the public interest to proceed now with licensing in the 37 GHz band.

If the Commission goes ahead with licensing nonetheless, then the FWCC asks it to take the following comments into account.

B. Licensing

The FWCC agrees with Winstar-IDT that licensing should be on an exclusive use, geographic area basis using Economic Areas, consistent with the licensing scheme adopted for the 39 GHz band.[3] The plan adopted for the 70/80/90 GHz bands (multiple non-exclusive nationwide licenses) would not be compatible with the technology or physics of the equipment likely to be deployed in the 37 GHz band.[4]

C. Technical Rules Should Allow for Point to Point (PTP), Point to Multi-Point (P-MP) and Mobile Operation

With the qualification stated below, the FWCC agrees with Winstar-IDT in supporting the Commission's proposal to permit PTP, P-MP and future Mobile Operations in the 37 GHz band.[5] In other proceedings, the FWCC has criticized proposals for mixed mobile and fixed operations in the same band. While sharing between the fixed service and mobile stations in the same area can be problematic at lower frequencies, we believe that mobile operation should be viable in the 37 and 39 GHz bands. Mobile coverage areas at lower frequencies are typically very large; mobile stations can roam over large areas; and the direction and strength of mobile signals are not predictable. In the bands at issue here, mobile service areas will be restricted in size due to the high propagation losses and the fact that mobile antennas have little directivity. These limitations will in most cases constrain mobile operations to a limited area, such as a sports stadium or a business or college campus.

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[2] *See* Comments of First Avenue Networks at 5-8.

[3] *See* Comments of Winstar Communications, LLC at 3.

[4] *See id*.

[5] *See id*.

While operation within the licensee's geographic area would be at the sole discretion of the licensee, we are nonetheless concerned that mobile users in adjacent license areas may wander into a fixed service receiver boresight, or even cross the boundary into another licensee's area. We understand that mobile operation will be subject to a future rulemaking to develop technical rules that would permit both fixed and mobile operations.[6] No technical rules have so far been proposed. The FWCC conditions its approval of mixed mobile and fixed operation in the 37 and 39 GHz bands on such rules ultimately being acceptable to the fixed service community, with assurance of protection from unconstrained mobile operation.

D. Licensing Renewal

Along with Winstar-IDT, we do not agree that licensing renewal should be predicated on a showing of substantial service on a per-license, per-channel basis. Rather, in considering whether a licensee has met its substantial service requirement, the Commission should take into account all common costs that licensees incur in building national or regional networks. These costs cannot be reasonably allocated to one particular license or another, but rather are incurred to build out all of the licenses held by a licensee. As both we and Winstar-IDT have stated, rules that closely track Section 101.1011 "Construction requirements and criteria for renewal expectancy"[8] for the LMDS service would resolve the contradictory regulations governing fixed wireless license management and build-out requirements that currently exist in Section 101.17.

E. Aggregation/Disaggregation

Again in agreement with Winstar-IDT, we support the Commission's proposal to permit licensees to partition and/or disaggregate either through the competitive bidding process or through private negotiation and agreement. The decision should be at the discretion of the bidding consortia or license holder and of course must be subject to all coordination rules.

F. Bandplan

Although our first-round comments did not take a stand on the band plan proposal in the NPRM, we join Winstar-IDT in supporting a proposal for 50 MHz paired channels with 700

[6] *See* Amendment of the Commission's Rules Regarding the 37.0-38.6 and 38.6-40.0 GHz Bands, *Report and Order and Second Notice of Proposed Rule Making*, 12 FCC Rcd. 18600, at paras. 23-25 (1997).

[7] *See id.*

[8] *See* 47 C.F.R. § 101.1011 (2003).

MHz separation between the transmit and receive frequencies, and with four 50 MHz unpaired channels. We agree with Winstar-IDT that having the four unpaired channels be contiguous, either above or below the paired channels, limits their usefulness because the four contiguous channels could then only be used individually for resolving interference problems. It would not be possible to pair them or concatenate them in any way, because there would be virtually no separation between go and return channels. This may lead to spectrum inefficiency. A more useful method would split the unpaired channels into two banks, one at the upper end of the spectrum and the other at the lower end, with sufficient separation for go/return pairing on a case by case basis.

G. Satellite Earth Stations

We reiterate our concerns, which are also important to Winstar-IDT, that if earth stations become authorized to operate in the band, then the pfd coordination trigger proposed in the NPRM must replace the distance coordination trigger.[9] There must also be uniform terrestrial coordination parameters. Fixed Satellite Service licensees must successfully coordinate with all potentially affected Part 101 licensees prior to filing a Part 25 license application in the band.

H. Satellite Downlink PFD levels

The FWCC supports Winstar-IDT's view that satellite downlink pfd levels to the satellite earth stations (under both clear sky and rain fade conditions) require adjustment. As we stated in our first-round comments, we

> continue[] to be concerned with the downlink PFD levels that might be received from a space station in the 37.5-40.0 GHz band. We are especially concerned with levels that might be encountered if the space station is permitted to increase its power to overcome the effects of rain attenuation, particularly as to Fixed Service receivers within the satellite footprint but outside the worst of the rainfall area. The FWCC continues to believe that greater protection for Fixed Service receivers is required. The FWCC recommends that any rules developed that would allow for an increase in space station power include sufficient protection for Fixed Service receivers to prevent unacceptable interference anywhere within the spot beam of the satellite.

The FWCC was deeply involved in the negotiations and decisions leading up to the CITEL PCC III meeting of March 2000 and subsequent preparations for WRC 2000. We agree with Winstar-IDT that the level of protection for the fixed service originally agreed to by all U.S. participants and proposed by the U.S. to the March 2000 meeting of CITEL PCC III is the

[9] *See* NPRM at para. 77.

protection necessary to permit unencumbered operation by the fixed service.[10] These protection levels are:

Limit in dB(W/m^2) for angle of arrival above the horizontal plane		
0^0-15^0	=	-135
15^0-30^0	=	-135+(δ-15)
$>30^0$	=	-120

I. Coordination with the Federal Government

As we and Winstar-IDT stated in our first-round comments, we do not believe the coordination requirements or the coordination methods employed between geographic area licensees and Federal government operations should be different from those between private operations. Geographic area licensees acquired their rights through a competitive bidding process and should be protected to the same degree from all other operators. Similarly, there should be no more constraint on a commercial government licensee to protect Federal government operations than to protect other commercial operations.

III. CONCLUSION

The FWCC agrees with FAN that it is not in the public interest to proceed with licensing in the 37 GHZ band at this time. However, if licensing must proceed, the FWCC asks the Commission to consider the foregoing positions.

Respectfully submitted,

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[10] *See* Winstar Comments at 6-7.

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