

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

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

Winstar Communications, LLC

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January 3, 2005

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REPLY COMMENTS OF WINSTAR COMMUNICATIONS, LLC

On behalf of Winstar Communications, LLC, an IDT company (hereinafter “Winstar-IDT”), enclosed please find its reply comments to the Third Notice of Proposed Rulemaking regarding Amendment of the Commission’s Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands.¹

I. Introduction

Winstar-IDT, ultimately owned by IDT Corp. (NYSE: IDT and IDT.C), provides terrestrial based, predominately fixed, broadband communications using the area-wide licensed 38.6-40.0 GHz (“39 GHz”) and Local Multi-Point Distribution Service (“LMDS” or “28 and 31 GHz”) bands. The Winstar-IDT area-wide licenses cover the entire country (Alaska, Hawaii and the lower 48 states) and Puerto Rico. Winstar-IDT also utilizes the point-to-point licensed microwave bands (including, but not limited to 18 GHz, 23 GHz, etc.). Winstar-IDT engages in spectrum leasing in accordance with the Secondary Spectrum Market process implemented this year.

¹ Amendment of the Commission’s Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands; Implementation of Section 309(j) of the Communications Act – Competitive Bidding, 37.0-38.6 GHz and 38.6-40.0 GHz Bands, *Notice of Proposed Rulemaking*, ET Docket No. 95-183, RM-8553, PP Docket No. 93-253, (Adopted March 31, 2004) (hereinafter “NPRM”).

In this Third Notice of Proposed Rulemaking the Commission proposes to adopt a conforming set of rules for the 37.0-38.6 GHz band (“37 GHz”) and the 42.0-42.5 GHz (“42 GHz”) band that would substantially conform to the rules already adopted for the 38.6-40.0 GHz (“39 GHz”) band. The Commission states that conditions have changed considerably and that it is willing to consider alternatives if commenters can demonstrate that a different regulatory framework would be more appropriate.²

II. Comments

Winstar-IDT herein provides its comments in response to: 1) the filing of comments in this proceeding by First Avenue Networks (“FAN”) and The Fixed Wireless Communications Coalition (“FWCC”) and; 2) the National Telecommunications and Information Administration’s (“NTIA”) letter to the FCC, that was received on April 13, 2004.

A. First Avenue Networks Raises Important Economic Considerations

Winstar-IDT agrees that economic conditions appear unripe for licensing the 37 GHz band at this time. FAN raises an important issue that goes beyond the significant technical rule modifications and satellite interference standard adjustment matters that FWCC and Winstar-IDT believe require resolution prior to any licensing occurring. FAN noted that the secondary market proceeding effects need reasonable time to allow existing 39 GHz licensees to establish themselves economically and to more fully deploy leasing systems and network operations in their band before flooding the market with 37 GHz spectrum.³

Increasing the supply of millimeter wave spectrum without duly considering the economic and technical precursors sets the stage for negatively effecting the spectrum and the ability of existing licensees to see through the promise of the Commission’s nascent secondary market policies. Winstar-IDT believes that the secondary market opportunities for leasing its spectrum are necessary to optimize the use of its millimeter wave spectrum.

² See *id.* at para. 1.

³ See Comments of First Avenue Networks, to the *Third Notice of Proposed Rulemaking* in ET Docket 95-183, at 5 (Dec. 3, 2004).

Winstar-IDT completely agrees with FAN's view that auctioning of 37 GHz spectrum at this time is not in the public interest.

B. FWCC Correctly Supports the FCC's Coordination Proposal and Urges Protection from Satellite Operations

Winstar-IDT agrees with the FWCC and supports the Commission's proposal to modify the coordination requirements for the 39 GHz band to be in conformance with the new requirements for the 37 GHz band, and supports elimination of the coordination distance trigger of 16 kilometers and implementation of a pfd coordination trigger.⁴ Winstar-IDT also agrees with the FWCC and the FCC's proposal that there should be a specific requirement for coordination where there is optical line of sight into another licensee's geographic area and where the pfd generated at the boundary of the other licensee's geographic area is above -125dBW/m^2 in any 1 MHz band.⁵

The FWCC is rightly concerned with the prospect of satellite earth stations operating in the 37.5-40.0 GHz band. Winstar-IDT agrees with the FWCC view that if earth stations are permitted to operate in that band the proposed pfd coordination trigger should replace the distance coordination trigger. We also agree that it is important that terrestrial coordination parameters be the same everywhere and that satellite earth station licensees not be conveyed greater rights than terrestrial stations.⁶ Earth stations should not be able to claim interference from fixed terrestrial stations at distances greater than the fixed terrestrial stations can. It is essential that an FSS operator be required to secure a coordination agreement with all potentially affected Part 101 licensees prior to filing an application for a Part 25 license in that band. Winstar-IDT also strongly urges that this band be designated for use by gateway earth stations only and that they be located so that satellite beams avoid built-up areas. The best method for accomplishing this is for the satellite provider to obtain terrestrial spectrum leases or spectrum licenses from current licensees.

⁴ See Comments of the Fixed Wireless Communications Coalition, to the *Third Notice of Proposed Rulemaking* in ET Docket No. 95-183, at 2 (Dec. 3, 2004) [hereinafter FWCC Comments].

⁵ See *id.* at 3.

⁶ See *id.*

We support the FWCC concern that current permitted pfd levels from satellite space stations are not sufficient to protect fixed service receivers.⁷ Also, any power increase that may be permitted for the space station to overcome the effects of rain attenuation will be detrimental to fixed service operation. Furthermore, we believe the pfd limits in this band should be in accordance with the values agreed amongst US operators in preparation for WRC 2000.

C. Coordination with NASA Stations

In the letter from the NTIA received by the FCC on April 13, 2004, referring to this proceeding, the NTIA asked for terms and conditions which amount to removing the 37-38.6 GHz band from any practical commercial fixed service.⁸ Until now there was a clear implication that the band 37-38 GHz would be limited to very few distinct NASA earth stations located in remote areas of the United States. NTIA now states that NASA intends to use an unspecified number of earth stations for space research and may implement fixed and mobile systems in the band 37-38.6 GHz in locations not limited to those “traditionally identified for deep space operations.” Furthermore, they propose to apply, at least in the 37-38 GHz portion of the band, a protection criteria of $-130 \text{ dB(W/m}^2\text{/MHz)}$ from terrestrial stations.

The origin of this specific pfd value has not been made clear in the letter. The letter appears to propose this pfd level based on a precedent set for FSS Geostationary space stations using the protection requirements stated in ITU-R Rec. SA.1396. This Recommendation contains a protection level of -217 dBW/Hz , which is derived from a receiver noise temperature of 60 deg. However, a pfd value of $-130 \text{ dB(W/m}^2\text{/MHz)}$ is equivalent to a protection level of -217 dBW/Hz only if the receiving antenna gain is 26 dBi. Such a high receive gain can only occur for interference arriving at a small angular separation from the main-beam axis of the Earth station antenna, which we calculate to be about 1.3 degrees.

At this elevation angle, the presence of the earth will increase the system noise temperature of the Earth station so that it may significantly exceed the 60 deg noise temperature assumed in Rec. SA 1396. Thus, if the Earth station is functional at an elevation angle of 1.3

⁷ *See id.*

⁸ Letter from Frederick R. Wentland, Associate Administrator, Office of Spectrum Management, Nat'l Telecomm. and Info. Admin., to Edmond J. Thomas, Chief, Office of Engineering and Technology, Fed. Communications Comm'n (Apr.13, 2004) (on file with author).

degrees, the value of pfd of $-130 \text{ dB(W/m}^2\text{/MHz)}$ must be revised to reflect the higher noise temperature. Taking into account a more realistic elevation angle, such as 10 degrees, the gain presented to the FS emissions would be 4 dB, which would allow an additional 22 dB of received pfd, i.e. $-108 \text{ dB(W/m}^2\text{/MHz)}$.

Winstar-IDT notes the fact that the proposals by the NTIA present an entirely one-sided picture and more work is necessary in an appropriate forum before the FCC adopts the US footnotes proposed. Particularly so when it is considered that the letter indicates that the population of earth stations in the government services in these bands is likely to grow significantly.

The FWCC and Winstar-IDT also believe that the coordination requirements or the coordination methods employed between geographic area licensees and Federal government operations should not be any different from the requirements and methods used among non-Federal government operations. We both agree that there should be no more constraint on the non-Federal government licensee to protect Federal government operations than to protect non-Federal government operations.

D. Licensing and Licensing Renewal

Winstar-IDT supports the FWCC's position on licensing and especially on licensing renewal.⁹ We agree that should licensing proceed in this band, it should be on a geographic area basis using Economic Areas, consistent with the licensing scheme adopted for the 39 GHz band. We also do not believe that using a first-come first-served link registration approach in this band fosters efficient spectrum use or effective competition or innovation.

As both Winstar-IDT and the FWCC stated in their comments, we do not agree with the requirement for license renewal that licensees demonstrate substantial service on a per-license, per-channel basis. The Commission should take into account *all* common costs that licensees incur in building national or regional networks when considering whether a licensee has met its substantial service requirement. As the Commission is aware, these costs cannot always be rationally allocated to one particular license or another. Rather, they are costs incurred to build

⁹ See FWCC Comments at 3-4.

out all the licenses held by a licensee. This approach is consistent with the flexibility intended by the 39 GHz Order¹⁰ and stated as intended in this Order.

E. Aggregation/Disaggregation

Both Winstar-IDT and the FWCC 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.¹¹ The decision should be at the discretion of the bidding consortia or license holder and should of course be subject to all coordination rules.

III. CONCLUSION

Licensing in the 37 GHz band is premature until multiple, material issues are fully addressed and resolved. Winstar-IDT agrees with FAN that economic conditions appear unripe for licensing the 37 GHz band at this time. Winstar-IDT supports the technical conclusions raised in the FWCC comments. The technical conclusions raised by NTIA appear unsupported and require substantial support before receiving serious consideration.

Respectfully submitted,

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¹⁰ See Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, *Report and Order and Second Notice of Proposed Rulemaking*, 12 FCC Rcd. 18600, at paras. 38-50 (1997).

¹¹ See FWCC Comments at 4-5.

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