

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
TRW INC.)	File No. 0000137436
)	
Request for Waiver of the Commission's)	
Rules to Provide Fixed Satellite Service in the)	
39 GHz Band)	

MEMORANDUM OPINION AND ORDER

Adopted: March 2, 2001

Released: March 12, 2001

By the Chief, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau:

I. INTRODUCTION

1. In this *Memorandum Opinion and Order*, we address the waiver request of TRW Inc. (TRW) to provide Fixed Satellite Services (FSS) on certain channels in the 38.6 - 40.0 GHz band (39 GHz band).¹ TRW requests waiver of all the Commission's Part 101 rules that may hinder the use of these frequencies for FSS.² In addition, TRW expressly requests waiver of Section 101.147(a) note 4 of the Commission's Rules. For the reasons that follow, we dismiss TRW's waiver request.

II. BACKGROUND

2. In 1997, the Commission described an overall policy and framework for services to be provided in the spectrum between 36 - 51 GHz.³ The Commission recognized that due to the ubiquitous nature of some of the proposed services, it was unlikely that satellite and terrestrial systems could share the same spectrum without significant technical constraints on the operations of their systems.⁴ As a result, the Commission concluded that separate primary designations for satellite and terrestrial services were in the

¹ TRW, Inc., FCC Form 601, Exhibit F (filed May 24, 2000) (Waiver Request).

² *Id.* at 1.

³ Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5 – 38.5 GHz, 40.5 – 41.5 GHz and 48.2 – 50.2 GHz Frequency Bands; Allocation of Spectrum to Upgrade Fixed and Mobile Allocations in the 40.5 – 42.5 GHz Frequency Band, Allocation of Spectrum in the 46.9 – 47.0 GHz Frequency Band for Wireless Services; and Allocation of Spectrum in the 37.0 – 38.0 GHz and 40.0 – 40.5 GHz for Government Operations, IB Docket No. 97-95, *Notice of Proposed Rulemaking*, 12 FCC Rcd 10130, 10134 ¶ 9 (1997) (*Allocation NPRM*).

⁴ *Id.* at 10135-10136 ¶ 12; Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5 – 38.5 GHz, 40.5 – 41.5 GHz and 48.2 – 50.2 GHz Frequency Bands; Allocation of Spectrum to Upgrade Fixed and Mobile Allocations in the 40.5 – 42.5 GHz Frequency Band, Allocation of Spectrum in the 46.9 – 47.0 GHz Frequency Band for Wireless Services; and Allocation of Spectrum in the 37.0 – 38.0 GHz and 40.0 – 40.5 GHz for Government Operations, IB Docket No. 97-95, *Report and Order*, 13 FCC Rcd 24649, 24659 (1998) (*Allocation R&O*).

public interest given the technical difficulties involved in sharing.⁵ However, during this time period, the Commission indicated that further proceedings to develop service and auction rules would be necessary before authorizing operations.⁶ The Commission stated that use of these bands for satellite services should be addressed in those proceedings.⁷ It noted that such proceedings could further define the specific services to operate in particular bands consistent with the U.S. Table of Frequency Allocations (Table).⁸

3. Against this backdrop, TRW sought to ensure that some of the global spectrum allocation for FSS in the 39 GHz band remained available for next-generation satellite networks.⁹ Specifically, TRW requested an exclusive allocation of channels above 39.5 GHz for FSS.¹⁰ The Commission denied TRW's request to allocate the 39.5 - 40.0 GHz segment of the 39 GHz band exclusively to FSS, but reiterated that it has the ability to modify the Table at a later time.¹¹ However, the Commission noted that it did not intend to constrain a *wireless licensee's* ability to deploy satellite earth stations in this particular segment.¹² In fact, the Commission stated that it might be possible and desirable to deploy both terrestrial wireless and satellite facilities.¹³

4. Furthermore, the Commission concluded that satellite operators would be free to provide service in the 39.5 - 40.0 GHz segment either through a license won at the 39 GHz auction, thereby becoming a wireless licensee, or through a post-auction arrangement with a winning bidder.¹⁴ Finally, the Commission noted that a *wireless licensee* seeking to provide satellite services in the 39.5 - 40.0 GHz

⁵ *Allocation R&O*, 13 FCC Rcd at 24656 ¶ 13, 24650 ¶ 18.

⁶ *Id.* at 24668 ¶ 36. Specifically, the Commission noted that during proceedings to develop service, licensing and auction rules for the 38.6 - 40.0 GHz band, the Commission would also address the relationship between terrestrial wireless services and other services currently sharing those allocations. *Id.* at 24651 n.4.

⁷ *Id.* at 24651 n.4.

⁸ *Id.* at 24668 ¶ 36; Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5 - 38.5 GHz, 40.5 - 41.5 GHz, and 48.2 - 50.2 GHz Frequency Bands; Allocation of Spectrum to Upgrade Fixed and Mobile Allocations in the 40.5 - 42.5 GHz Frequency Band; Allocation of Spectrum in the 46.9 - 47.0 GHz Frequency Band for Wireless Services; and Allocation of Spectrum in the 37.0 - 38.0 GHz and 40.0 - 40.5 GHz for Government Operations, *Order on Reconsideration*, IB Docket No. 97-95, 15 FCC Rcd 1766, 1772 ¶ 14 (*Allocation Order on Reconsideration*).

⁹ Amendment of the Commission's Rules Regarding the 37.0 - 38.6 GHz and 38.6 - 40.0 GHz Bands, *Memorandum Opinion and Order*, ET Docket No. 95-183, 14 FCC Rcd 12453 ¶ 47 (*39 GHz MO&O*).

¹⁰ *Id.*

¹¹ *Id.* at 12454-55 ¶ 49.

¹² *Id.* The Commission repeated this pronouncement in 1999. See *Allocation Order on Reconsideration*, 15 FCC Rcd at 1770 ¶ 9.

¹³ *39 GHz MO&O*, 14 FCC Rcd at 12455 n.193. For example, terrestrial facilities may be deployed in urban areas while satellite facilities, particularly gateway earth stations, may be deployed in rural areas.

¹⁴ *Allocation Order on Reconsideration*, 15 FCC Rcd at 1770 ¶ 9, 1772 ¶ 14.

segment must obtain a Part 25 license to operate earth stations in its Economic Area (EA).¹⁵ It further noted that the Part 25 license could be sought after amendment of its Part 25 rules or upon a waiver of those rules.¹⁶ The Commission repeated that the wireless designated bands (including the 39 GHz band) would be subject to additional rulemaking proceedings that will further define the parameters under which additional services can operate in particular bands, consistent with the Table.¹⁷

5. From April 12, 2000 through May 8, 2000, the Commission conducted an auction of 2,450 licenses for fixed point-to-point microwave services (Auction No. 30) in the 39 GHz band.¹⁸ On May 10, 2000, the Wireless Telecommunications Bureau announced the winning bidders from Auction No. 30.¹⁹ TRW was the high bidder for 100 licenses in eleven EAs.²⁰ On May 24, 2000, TRW filed its long-form application and waiver request for the 100 licenses seeking authorization to provide fixed, mobile, and FSS.²¹ WinStar Wireless Fiber Corp. (WinStar) filed comments concerning the waiver request while the Wireless Communications Association International (WCA) filed a petition to deny the waiver request.²²

6. TRW claims that its reliance on the statements made by the Commission regarding satellite use in the 39 GHz band caused it to participate in Auction No. 30, during which it deposited a \$900,000 down payment with the Commission and committed itself to pay \$2,445,000 for its 39 GHz band licenses.²³ TRW suggests that under these unique and unusual circumstances, application of the rule would be inequitable.²⁴ It also argues that a grant of its waiver request will be in the public interest because it will ensure that the 39 GHz band will be opened to non-terrestrial services, thereby maximizing the potential use of the band.²⁵ TRW states that it has applied for spectrum and not for earth station licenses.²⁶ TRW

¹⁵ *Id.* at 1770 n.29. Similarly, those seeking to provide satellite services in the 39.5 – 40.0 GHz band who enter into post-auction arrangements with a winning bidder in a 39 GHz band must obtain a Part 25 license to operate earth stations under such agreement.

¹⁶ *Id.*

¹⁷ *Id.* at 1772 ¶ 14.

¹⁸ 39 GHz Band Auction Closes, *Public Notice*, 15 FCC Rcd 13648, 13648 (WTB 2000) (*Auction Closing PN*).

¹⁹ *See id.*

²⁰ *Id.* at 13656-13759.

²¹ TRW, FCC Form 601.

²² WinStar Comments, filed July 31, 2000 (Comments); WCA, Petition to Deny, filed July 31, 2000 (Petition). At the outset, we note that 47 C.F.R. §§ 1.925, 1.939, 1.2108 do not authorize the filing of a petition to deny against a waiver request. Comments may be filed in response to the filing of a waiver request. Because the title of a pleading filed by a party is not controlling as to the disposition of the pleading, we will consider WCA's filing as comments concerning the waiver request. Daniel R. Goodman, Receiver; Dr. Robert Chan, *Memorandum Opinion and Order and Order on Reconsideration*, 13 FCC Rcd 21944 (1998); Sun Over Jupiter Broadcasting Inc., *Order*, 8 FCC Rcd 8733 (1993).

²³ Waiver Request at 1-2; *see also* TRW's Consolidated Reply at 6-7 (filed Aug. 7, 2000) (Consolidated Reply); *see also Auction Closing PN*, 15 FCC Rcd at 13761.

²⁴ Waiver Request at 1-2; *see also* TRW's Consolidated Reply at 6-7.

²⁵ Waiver Request at 2.

states that it filed the waiver request in order to ensure that Section 101.147(a) of the Commission's Rules will not preclude the filing of applications for earth station licenses at a later date.²⁷ It argues that the time to seek assurance that FSS operations will not cause interference to any terrestrial wireless licensee is not now, but when it files its applications for earth station licenses.²⁸

7. In June 2000, the 2000 World Radiocommunication Conference (WRC-2000) adopted several changes to the international Radio Regulations that may be adopted domestically. For operations in the 39 GHz band, WRC-2000 established provisional power flux density (PFD) limits for FSS, Mobile Satellite Services and Broadcasting Satellite Services.²⁹ The Commission will address these provisional PFD limits in an upcoming rulemaking.

III. DISCUSSION

8. Our review of TRW's waiver request shows that TRW failed to plead particular facts and circumstances that warrant grant of its waiver request. The applicant must plead with particularity the facts and circumstances which warrant a waiver.³⁰ TRW submits general statements as the basis for grant of its waiver request. First, TRW seeks a waiver of the Part 101 rules that could hinder the use of frequencies allocated for FSS.³¹ It appears that TRW believes that more than one rule requires a waiver. However, TRW did not specify all the rules that it believes require a waiver. Failure to plead with particularity renders this section of the waiver request defective.³²

9. Additionally, TRW seeks a waiver of Section 101.147(a) note 4.³³ TRW argues that the Table and prior Commission decisions recognize that satellite use of the 39 GHz band was to be permitted.³⁴ However, TRW believes the absence of FSS in note 4 was an inadvertent oversight.³⁵ As a result, TRW is concerned that it is prohibited from operating FSS in the 39 GHz band. We disagree that Section 101.147(a) note 4 prohibits operation of FSS. In this instance, a waiver of note 4 is neither appropriate nor necessary. This note is merely informative. Section 101.147(a) states the frequencies that are available for assignment for fixed microwave services.³⁶ Note 4 indicates that the 39 GHz band is also shared with fixed

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²⁶ TRW's Consolidated Reply at 4.

²⁷ *Id.* 47 C.F.R. § 101.147(a) lists the frequencies that are available for fixed microwave services. Note four states that frequencies in this band are shared with fixed and mobile stations licensed in other services.

²⁸ *Id.*

²⁹ WRC-2003 will consider whether to adopt the provisional PFD limits permanently.

³⁰ *WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969) (*WAIT Radio*), *aff'd*, 459 F.2d 1203 (1972) *citing Rio Grande Family Radio Fellowship, Inc. v. FCC*, 406 F.2d 664 (D.C. Cir. 1968).

³¹ Waiver Request at 1.

³² *WAIT Radio*, 418 F.2d at 1157; *see also* 47 C.F.R. § 1.925(a).

³³ Waiver Request at 1.

³⁴ *Id.*

³⁵ *Id.*

³⁶ 47 C.F.R. § 101.147(a).

and mobile stations licensed in other services.³⁷ This note does not limit the use of the 39 GHz band to fixed microwave services. Thus, we find that Section 101.147(a) does not preclude the deployment of earth stations in the future. As a result, we do not believe that a waiver of this rule provision is necessary. Accordingly, we dismiss TRW's specific waiver request.

10. We nonetheless take this opportunity to state that the relief TRW apparently seeks is beyond the scope of the Commission's Part 101 rules. The Commission's Part 25 rules govern the provision of satellite services. In this regard, we note that further action under Part 25 of the Commission's rules is required for FSS earth stations to operate in the 39 GHz band. As noted above, the Commission previously stated that those bands designated for terrestrial wireless services will be subject to additional rulemaking proceedings that will further define the parameters under which additional services can operate in these bands consistent with the Table.

11. Having addressed the matter of the instant waiver request and in recognition of TRW's proposed services to be provided using the 39 GHz band licenses for which it was the high bidder, we believe it would be prudent to amplify what is permitted under the Commission's Part 101 Rules. A 39 GHz band EA licensee has authorization to provide wireless terrestrial services within its EA(s) on its licensed channel(s). Upon grant of a 39 GHz band EA license, the licensee has exclusive operating rights on its licensed spectrum in its EA provided it protects incumbent operations. A 39 GHz band EA license authorizes the licensee to construct and operate terrestrial fixed stations in the specified EA.³⁸ Although FSS earth station operations are consistent with the allocation for the 39 GHz band, such use has not been permitted to date because of the technical issues that must still be resolved. Accordingly, an entity seeking to provide FSS earth station operations must obtain a separate Part 25 license to construct and operate FSS earth stations within a licensed EA.

12. All operations under a 39 GHz EA license, including future operations of any FSS earth stations, must comply with the Part 101 rules governing the operation of the 39 GHz band.³⁹ With regard to coordination, the same criteria as applied to terrestrial stations would be applied to earth stations.⁴⁰ For example, adjacent EA licensees and incumbents must coordinate only their stations within 16 kilometers of the boundary of their areas, regardless of whether an earth station may require greater consideration.⁴¹ Likewise, an EA licensee (or a party it has reached agreement with) is not entitled to protection (vis-a-vis the incumbent licensee's operations) for earth stations deployed in areas inside the rectangular boundaries of incumbents license areas, even if that license area is completely or partially located inside the licensed EA.⁴² This requirement may necessitate locating earth stations away from the EA or incumbent

³⁷ *Id.* at note 4.

³⁸ See 47 C.F.R. § 101.149 for terms and conditions of EA licenses.

³⁹ Earth stations must also comply with 47 C.F.R. Part 25.

⁴⁰ Of course, if affected EA licensee(s) reach an agreement concerning interference matters, we would give such agreement deference absent interference concerns of other interested parties.

⁴¹ A coordination zone occurs when a licensee locates facilities within 16 kilometers of the boundaries of an EA. See 47 C.F.R. § 101.103(h)(4)(i)(1).

⁴² The incumbent 39 GHz band licensee retains the exclusive right to use its authorized channels within its rectangular service area. 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, *Report and Order*, 12 FCC Rcd 18600, 186377 ¶ 79 (1997) (39 GHz R&O). As a result, the EA licensee must design its system to protect against harmful interference to the incumbent by (continued....)

boundaries. Furthermore, an EA licensee, whether providing terrestrial or FSS earth station operations, must demonstrate substantial service at the time of its license renewal.⁴³ Once the Commission considers and adopts technical standards for terrestrial and FSS to share this spectrum, an EA licensee may satisfy this and any other Part 101 build-out requirements through the operation of satellite earth stations.

IV. CONCLUSION

13. We find that TRW has not provided a sufficient showing to justify grant of a waiver and that the requested rule waiver could not provide the relief it apparently seeks. Accordingly, we dismiss TRW's waiver request as defective.

V. ORDERING CLAUSES

14. Accordingly, IT IS ORDERED pursuant to Sections 4(i) and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), and Section 1.925(b)(3) of the Commission's Rules, 47 C.F.R. § 1.925(b)(3), the waiver request filed by TRW Inc. on May 24, 2000 IS DISMISSED.

15. This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission's Rules, 47 C.F.R. §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

D'wana R. Terry
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complying with the Commission's interference protection standards. *Id.* at 18637 n.157 *citing* 47 C.F.R. § 101.105.

⁴³ See 39 GHz R&O, 12 FCC Rcd at 18623-26 ¶¶ 41-50.