

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

In the Matter of)	
)	
EchoStar Satellite LLC)	
Petition for Reconsideration)	File Nos. SAT-LOA-20030827-00180
)	SAT-LOA-20030827-00182
Application for Authority to Construct,)	SAT-LOA-20030827-00185
Launch and Operate Geostationary Satellites)	SAT-LOA-20030827-00187
In the Fixed-Satellite Service Using the Ka)	
And/or extended Ku-bands at the 83° W.L.,)	Call Signs: S2493; S2495; S2498; S2500
105° W.L., 113° W.L. and 121° W.L. Orbital)	
Locations)	
)	
Petition for Reconsideration)	

MEMORANDUM OPINION AND ORDER

Adopted: April 14, 2006

Released: April 14, 2006

By the Chief, International Bureau:

I. INTRODUCTION

1. By this Order, we deny EchoStar Satellite LLC's (EchoStar) Petition for Reconsideration of the Satellite Division's decision denying the above-referenced applications in part, and dismissing the remaining portion as incomplete. EchoStar failed to show that the *Denial Order* was erroneous.¹ Consequently, we affirm the Division's underlying order and deny EchoStar's request to reinstate its applications or, alternatively, to dismiss the applications without prejudice to refiling.

II. BACKGROUND

2. In August 2003, EchoStar filed four applications to operate four Ka-band geostationary satellite orbit (GSO) satellites to provide a variety of services including supplemental services now provided by EchoStar's direct-broadcasting satellite (DBS) system.² In two of its applications, EchoStar proposed to

¹ EchoStar Satellite LLC, Applications for Authority to Construct, Launch and Operate Geostationary Satellites in the Fixed-Satellite Service using Ka and/or Extended Ku-bands at the 83° W.L., 105° W.L., 113° W.L., and 121° W.L. orbital locations, *Memorandum Opinion and Order*, 19 FCC Rcd 7846 (Sat. Div., Int'l Bur. 2003) (*Denial Order*).

² The term "Ka-band" generally refers to the space-to-Earth (downlink) frequencies in the 17.7-20.2 GHz and corresponding Earth-to-space (uplink) frequencies at 27.5-30.0 GHz.

operate GSO satellites at the 83° W.L. and 121° W.L. orbital locations using Ka-band spectrum designated for non-geostationary orbit (NGSO) fixed-satellite services (FSS), either exclusively or on a primary basis to other services in the band.³ In the other two applications, EchoStar proposed to operate GSO satellites at the 105° W.L. and 113° W.L. orbital locations using the same NGSO FSS Ka-band frequencies, as well as certain extended Ku-band frequencies.⁴ In all four applications, EchoStar requested a waiver of Section 2.106 of the Commission's rules, particularly footnote NG 165, to permit the operation of GSO satellites in a band that is limited, domestically, to NGSO FSS use only.⁵ The applications were placed on public notice.⁶ Three entities filed comments in response to the EchoStar applications, to which EchoStar filed a reply.⁷

3. In April 2004, the International Bureau's Satellite Division denied the applications in large part, and dismissed the remaining portions as incomplete. As stated in the *Denial Order*, the Division reviewed EchoStar's GSO FSS applications consistent with other applications seeking to operate in frequencies where other services have primary status. Specifically, the Division examined the applications to determine whether EchoStar's proposed system could operate in a manner that would not cause harmful interference to any NGSO FSS systems.⁸ EchoStar proposed uplinks in 28.6-29.1 GHz frequency band, which is designated to NGSO FSS on a primary basis and GSO FSS on a secondary basis. Consistent with Commission precedent, the Division denied EchoStar's request because it did not submit a technical showing demonstrating that it could operate on a non-interference basis to NGSO FSS systems.⁹ Further, the Division rejected EchoStar's assertion that it would "immediately cease" operations upon notification of harmful interference from NGSO FSS operators, noting that was insufficient, by itself, to protect primary services from secondary or non-conforming operations.¹⁰ EchoStar also proposed downlinks in the 18.8-19.3 GHz frequency band. GSO FSS use of this band is prohibited.¹¹ The Division concluded that EchoStar failed to demonstrate that a waiver of the rule, which assigned spectrum for NGSO FSS systems on a

³ Space stations operating in primary services are protected against interference from stations of secondary services. Stations operating in the secondary service cannot cause harmful interference to or claim protection from harmful interference from stations of a primary service. Co-primary services have equal rights to operate in particular frequencies. 47 C.F.R. §§ 2.104(d) and 2.105(c). In bands designated for exclusive use, nonconforming services may only be provided on a non-harmful interference basis to any licensed service provided in accordance with the Table of Allocations, and may not claim interference protection from other authorized services.

⁴ EchoStar proposed operations in the extended Ku-band, using the 10.95-11.2 GHz and 11.45-11.7 GHz (space-to-Earth) and 13.75-14.00 GHz (Earth-to-space) frequency bands.

⁵ 47 C.F.R. § 2.106.

⁶ *Public Notice*, Policy Branch Information, Report No. SAT-00165 (Sept. 24, 2003).

⁷ Petitions and Comments were filed by: Northrop Grumman Space Technology and Mission Systems Corp., Hughes Electronics and Hughes Network Systems, Inc. (collectively Hughes), and New Skies Satellite N.V.

⁸ *Denial Order*, 19 FCC Rcd at 7851.

⁹ *Denial Order*, 19 FCC Rcd at 7851.

¹⁰ *Denial Order*, 19 FCC Rcd at 7851.

¹¹ 47 C.F.R. § 2.106, fn. NG 165.

primary basis, was warranted.¹² Finally, the Division rejected EchoStar's assertion that the NGSO FSS spectrum would remain fallow if it were not permitted to operate, noting there were three pending NGSO FSS applications.¹³

4. In its two applications proposing hybrid Ku/Ka band satellites, EchoStar also requested authority to use spectrum in the extended Ku-band frequencies, 10.95-11.2 GHz, 11.45-11.7 GHz (space-to-Earth) and 13.75-14.00 GHz (Earth-to-space).¹⁴ The Division denied this portion of the application due to EchoStar's failure to request a waiver of the Commission's rules. Section 2.106, footnote NG 104, and Section 25.202(a)(1), footnote 2, allow a U.S.-licensed satellite to provide downlink services to the United States and its possessions in the 10.95-11.2 GHz or 11.45-11.7 GHz frequency bands only if the uplinks originate outside of the United States and its possessions. EchoStar's proposed uplinks originate from earth stations in the United States. The remaining portion of EchoStar's application, requesting the 13.75-14.0 GHz band for its uplink operations, was dismissed because use of only these frequencies did not allow for a viable satellite system.¹⁵

5. EchoStar filed a Petition for Reconsideration of the Satellite Division's *Denial Order*.¹⁶ According to EchoStar, its applications included a showing that its proposed satellites would not cause interference to the proposed NGSO systems in the Ka-band. Specifically, EchoStar claims that its proposed Equivalent Power Flux Density (EPFD) limits would allow NGSO FSS systems to operate while maintaining an acceptable interference level.¹⁷ It also asserts that its showing is based on the likelihood that no NGSO FSS systems will be operating in the near term.¹⁸ Further, because it agreed to cease operations upon notification of harmful interference, EchoStar states there was "no need" to submit a detailed technical analysis.¹⁹ EchoStar asserts that granting its applications would be consistent with Commission precedent in which licenses have been granted on a secondary or non-harmful interference basis with conditions requiring cessation of service upon a determination of harmful interference.²⁰

6. In the alternative, EchoStar asserts that the Division should have requested an interference analysis for its proposed Ka-band operations, and should now reinstate the applications and allow such a

¹² *Denial Order*, 19 FCC Rcd at 7853.

¹³ *Denial Order*, 19 FCC Rcd at 7853.

¹⁴ EchoStar Satellite LLC, application File Nos. SAT-LOA-20030827-00185 and SAT-LOA-20030827-00187, to operate a hybrid GSO satellite using Ka-band and extended Ku-band frequencies at the 105° W.L. and 113° W.L. orbital locations, respectively.

¹⁵ *Denial Order*, 19 FCC Rcd at 7854

¹⁶ EchoStar Satellite LLC, Petition for Reconsideration, filed June 1, 2004 (*EchoStar Petition*). EchoStar's petition incorrectly states that the "International Bureau" denied its applications. The *Denial Order* was adopted and released by the Bureau's Satellite Division.

¹⁷ *EchoStar Petition*, at 6.

¹⁸ *EchoStar Petition*, at 6.

¹⁹ *EchoStar Petition*, at 7.

²⁰ *EchoStar Petition*, at 8.

filing before denying or dismissing the applications.²¹ EchoStar states this would be consistent with the treatment afforded other applications. It would also, EchoStar states, be consistent with a December 2003 Public Notice addressing the Commission's two degree interference analysis, which allows certain applicants to submit additional information.²²

7. EchoStar likewise asserts that the Commission should have requested additional information pertaining to its proposed extended Ku-band use before processing its applications. EchoStar states that its applications were "substantially complete," and do not have to be "letter perfect" to be accepted for processing.²³ An applicant's failure to request a waiver, EchoStar maintains, is a matter that can be remedied without denying an application.²⁴ According to EchoStar, the Division's order departs from Commission and judicial precedent of routinely requesting that applicants correct more serious errors or omissions.²⁵

8. EchoStar argues further that the Division should have dismissed, rather than denied, the applications. EchoStar states that the deficiencies cited by the Division were procedural errors and "such a finding is akin to not accepting the applications for filing."²⁶ And, to the extent the Division reconsiders other portions of the applications, EchoStar asks that it also reconsider its decision to dismiss the uplink operations in the Ku-band because the remaining frequencies did not allow for a viable system.²⁷

9. Northrop Grumman opposes EchoStar's petition on three grounds. First, it states that the EPFD limits that EchoStar relies on are designed to protect GSO FSS networks from NGSO FSS interference, and not to protect NGSO FSS systems from GSO FSS interference, as EchoStar claims. Second, Northrop Grumman states the Division was correct that EchoStar was required to submit a technical showing that it could operate on a non-harmful interference basis to NGSO FSS systems. It asserts EchoStar's promise to cease operations immediately upon notification of harmful interference to NGSO operators is insufficient without this showing.²⁸ It also notes that the cases EchoStar cites involve instances where the applicants proposing secondary or non-conforming operations have submitted analyses demonstrating that they could operate without causing harmful interference to primary operations. Third, Northrop Grumman states that EchoStar is not "similarly situated" with applicants that were asked to provide information missing from a two-degree interference analysis and that the Division correctly denied the applications.²⁹ Northrop states, however, that it does not object to EchoStar filing the applications with a technical demonstration that its GSO systems can operate without causing harmful interference to NGSO systems.

²¹ *EchoStar Petition*, at 9.

²² *EchoStar Petition*, at 9, 10 ft note 21.

²³ *EchoStar Petition*, at 10.

²⁴ *EchoStar Petition*, at 13.

²⁵ *EchoStar Petition*, at 12.

²⁶ *EchoStar Petition*, at 13.

²⁷ *EchoStar Petition*, at 16-17.

²⁸ *Northrop Grumman Opposition*, at 3.

²⁹ *Northrop Grumman Opposition*, at 4.

III. DISCUSSION

10. We note, first, that EchoStar erroneously claims that the Division denied the Ka-band portion of its applications for failure to submit an analysis showing that GSO and NGSO satellites can operate in the requested bands without “objectionable interference.”³⁰ The Division separately addressed EchoStar’s proposed uplink and downlink Ka-band operations, and denied EchoStar’s requests for separate reasons. First, as explained in the *Denial Order*, the 28.6-29.1 GHz Ka-band frequencies are designated on a primary basis to NGSO FSS and to GSO FSS on a secondary basis. The Division denied EchoStar’s proposed use of these frequencies based on EchoStar’s failure to provide a showing that its proposed GSO FSS system could operate on a non-harmful interference basis to primary NGSO FSS operations in this portion of the band. In the proposed downlink, 18.8-19.3 GHz frequency band, GSO FSS use is prohibited under the Commission’s rules, and a waiver of the rule justifying non-conforming uses is required. The Division denied EchoStar’s proposed downlink frequencies because EchoStar failed to justify a waiver of the rule.³¹

11. EchoStar asserts that it did demonstrate that its proposed satellites would not cause objectionable interference to NGSO FSS Ka-band systems. EchoStar points to its proposed EPFD limits as proof that its GSO system would not cause objectionable interference to proposed NGSO FSS operations.³² As EchoStar itself notes, these proposed EPFD limits are based on International Telecommunication Union (ITU) Radio Regulations that apply in adjacent bands, not the bands at issue.³³ Further, the specified limits are designed to protect GSO systems from NGSO systems and EchoStar asserts the opposite is true. Neither the ITU or the Commission has established EPFD limits to protect NGSO systems from GSO operations. It is premature to accept these limits here without further evidence that NGSO FSS systems operating in the 28.6-29.1 GHz band will be adequately protected. EchoStar did not submit any such evidence.

12. Further, we disagree with EchoStar’s argument that it did not need to submit such evidence because it said it would cease operations upon notification of a concrete risk of harmful interference. EchoStar states that the Division regularly grants authority for secondary or non-conforming operations subject to the condition that the licensee cease operations upon notification of harmful interference. While we agree that the Division includes such conditions in authorizations for secondary or non-conforming uses, it does so in cases where the applicant provides a technical demonstration that it can

³⁰ *EchoStar Petition*, at 6.

³¹ *Denial Order*, 19 FCC Rcd at 7853. In denying EchoStar’s request to operate GSO FSS downlinks in the 18.8-19.3 GHz frequency band, the Division stated, in part, that EchoStar’s speculation that the NGSO spectrum will “remain fallow” when there were three applications pending was not good cause for a waiver. While circumstances have changed since the release of the denial order, applicants seeking to use GSO FSS downlinks in NGSO FSS spectrum must still request a waiver of the rule demonstrating “special circumstances” warranting a deviation from the general rule and that such deviation is in the public interest. We note that Northrop Grumman, an applicant for a NGSO FSS system that includes the use of NGSO FSS Ka-band spectrum, does not oppose “appropriate GSO operations” in NGSO FSS spectrum, provided the operations protect NGSO systems. *Northrop Grumman Opposition*, at 5.

³² *EchoStar Petition*, at 6.

³³ EchoStar Application, File No. SAT-LOA-20030827-00182, Attachment A, Technical Description, at 29-30.

protect other users of the spectrum.³⁴ Indeed, in *Qualcomm, Inc.*, cited by EchoStar in its petition, the Commission explicitly stated that it was necessary to determine whether proposed operations would cause harmful interference to primary services or secondary services with superior status before any grant. The Commission stated that while Qualcom “would be required to cease transmissions immediately if its system interfered with [other services], we seek to avoid disruptions to these services and will permit Qualcomm to operate only if there is little potential for interference.”³⁵ Furthermore, the Commission has consistently rejected applications similar to EchoStar’s for failing to submit a technical showing that proposed operations would not interference with primary services.³⁶ Quite simply, EchoStar failed to comply with Commission policy and precedent which requires it to demonstrate that its proposed operations would not cause interference to NGSO FSS systems, which have primary status in the 28.6-29.1 GHz frequency band. The Division correctly concluded that EchoStar’s willingness to cease operations upon notification of a concrete risk of harmful interference by NGSO FSS systems did not discharge its obligation to submit an interference analysis.

13. We also reject EchoStar’s alternative argument that the Division should have asked EchoStar to provide an interference analysis for its proposed GSO operations and a waiver request for its proposed Ku-band operations before denying the applications.³⁷ While the Commission may request additional information from any party at any time concerning an application, it is not the Commission’s duty to perfect a materially deficient application.³⁸ With the adoption of the *First Space Station Reform Order*, the Bureau has strictly enforced its Part 25 rules, which require the Bureau to return as unacceptable any application that is “defective with respect to completeness of answers to questions, informational showings, [or] internal inconsistencies.”³⁹

14. EchoStar's reliance on a December 3, 2003 Public Notice in support of its argument that the Division should have asked it for information is misplaced. In unusual circumstances where the Commission's satellite information requirements have not been clearly set forth in a Commission rule,

³⁴ See, e.g., *Boeing Company, Order and Authorization*, 16 FCC Rcd 5864 (Int’l Bur., OET 2001) (Boeing request to use spectrum allocated on a primary basis to the Fixed Satellite service supported with a showing that it could protect these services); *Qualcom, Inc., Memorandum Opinion, Order and Authorization*, 4 FCC Rcd 1543 (1989).

³⁵ *Qualcom, Inc.*, 4 FCC Rcd at 1546. See also *Boeing Company, Order and Authorization*, 16 FCC Rcd 22645 (Int’l Bur. 2001), also cited by EchoStar. *EchoStar Petition* at 8. In that Order, the Bureau authorized a non-conforming use for AMSS operations in the 14 GHz band based on the analyses of potential interference from AMSS operations and on the fact that parties to the proceeding reached a consensus on the appropriate measures for AMSS systems to protect primary FSS operations. In addition, Boeing’s authorization was conditioned to require operations on a non-harmful interference basis to all authorized users of the band. *Boeing Company*, 16 FCC Rcd 22652.

³⁶ See e.g., *Astrolink International LLC, Order and Authorization*, 16 FCC Rcd 20124 (Int’l Bur. 2001) (rejecting Astrolink’s proposal to cease transmissions to and from its GSO satellites operating in NGSO Ka-band spectrum, and noting that GSO FSS systems cannot operate on a secondary basis to NGSO FSS systems without establishing an appropriate interference protection level for NGSO FSS operations).

³⁷ *EchoStar Petition*, at 9.

³⁸ 47 C.F.R. § 25.111.

³⁹ 47 C.F.R. § 25.112(a)(1).

Order, or Public Notice, we issue Public Notices to clarify these requirements.⁴⁰ In doing so, we do not dismiss pending applications that do not contain the relevant information. Rather, we provide applicants an opportunity to supplement their applications consistent with the clarification. Thus, in December 2003, we issued a Public Notice clarifying the information requirements for the interference analysis required to be submitted as an attachment to all GSO FSS applications.⁴¹ This interference analysis is intended to demonstrate that a proposed GSO FSS space station is compatible with the Commission's two-degree orbital spacing framework. In the Public Notice, we specified three methods applicants could use to make this demonstration. We also afforded applicants who had *already* submitted an interference analysis an opportunity to supplement that analysis pursuant to one of these three methods. In contrast, EchoStar did not submit a technical analysis at all or otherwise attempt to demonstrate that its proposed space station could operate on a non-interference basis to primary NGSO FSS operations. Rather, it asserted only that it did not need to submit an analysis because it had agreed to cease operations in the event of interference. Thus, EchoStar cannot rely on the December 2003 Public Notice to support its assertion that the Division should have asked EchoStar to supply the missing analysis and waiver request before taking action on its application.

15. We also disagree with EchoStar's claim that its applications should not have been denied, but dismissed without prejudice.⁴² An application may be deemed acceptable for filing upon initial review. Once accepted, the Commission will grant GSO-like applications upon a finding that the applicant is legally, technically, and otherwise qualified, that the proposed facilities and operations comply with all applicable rules, regulations, and policies, and that grant of the application will serve the public interest, convenience, and necessity.⁴³ The Division denied EchoStar's application because it was not consistent with the Commission's rules and policies, and failed to support the necessary waivers. The *Denial Order* correctly set forth reasons why EchoStar's applications did not satisfy these requirements. In any event, whether dismissed or denied, this action is without prejudice to EchoStar refiling an application for any of the available Ka-band orbital locations at any time.

16. Finally, we consider EchoStar's request that the Division reconsider the dismissal of its proposed uplink operations in the extended Ku-band because "the use of the uplink frequencies only does not allow for a viable satellite system." EchoStar merely requests that the Division reconsider this portion of the application in the event it reconsiders the other portions. Based on our decision to deny EchoStar's request for reconsideration concerning its proposed Ka-band and Ku-band downlink operations, we deny this request for reconsideration as well.

IV. CONCLUSION AND ORDERING CLAUSE

17. Based on the foregoing, we affirm the Satellite Division's decision, and find it consistent with applicable precedent. We therefore deny EchoStar's petition for reconsideration of this decision. EchoStar may, of course, refile its applications. If it elects to do so, the applications will be treated as newly filed and considered under the "first-come, first-served" licensing process.

⁴⁰ EchoStar Satellite LLC, *Order on Reconsideration*, 19 FCC Rcd 24953, 24958 (Int'l Bur. 2004).

⁴¹ *Public Notice*, International Bureau, Satellite Division Information: Clarification of 47 C.F.R. § 25.140(B)(2), Space Station Application Interference Analysis, 18 FCC Rcd 25099 (Int'l Bur. 2003).

⁴² *EchoStar Petition*, at 10.

⁴³ 47 C.F.R. § 25.156(a).

18. According, IT IS ORDERED, that the Petition for Reconsideration filed by EchoStar Satellite LLC, File Nos. SAT-LOA-20030827-00180, SAT-LOA-20030827-00182, SAT-LOA-20030827-00185 and SAT-LOA-20030827-00187, is DENIED.

FEDERAL COMMUNICATIONS COMMISSION

Donald Abelson
Chief
International Bureau