

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

In the Matter of)	
)	
DIRECTV Enterprises, LLC)	IBFS File Nos. SAT-LOA-20130205-00016
)	SAT-AMD-20130716-00094
Application for Authorization to)	
Launch and Operate DIRECTV KU-45W)	Call Sign S2893

ORDER AND AUTHORIZATION

Adopted: March 4, 2015

Released: March 4, 2015

By the Chief, Satellite Division, International Bureau:

I. INTRODUCTION

1. By this Order, we grant authority to DIRECTV Enterprises, LLC (DIRECTV) to construct, launch, and operate DIRECTV KU-45W (KU-45W), a geostationary orbit Ku-band satellite. DIRECTV intends to use KU-45W at the 45.2° West Longitude (W.L.) orbital location to provide direct-to-home (DTH) Fixed-Satellite Service (FSS) to Brazil in the extended Ku-band and in part of the conventional Ku-band.¹ We also deny the request of EchoStar Satellite Operating Company LLC (EchoStar) that we deny or defer action on this application.² Grant of this authority will allow DIRECTV to provide the capacity to deliver high-definition programming to over five million Brazilian subscribers and to compete better in the multichannel video services market in Brazil.³

II. BACKGROUND

2. DIRECTV filed its application to launch and operate KU-45W on February 5, 2013. In its application, DIRECTV requests authority to operate KU-45W using the 10.95-11.2 GHz, 11.45-11.7 GHz, and 11.95-12.2 GHz frequency bands in the space-to-Earth direction and the 14.0-14.5 GHz frequency band in the Earth-to-space direction.⁴ In addition, DIRECTV also requests authority to

¹ “Ku band” and “conventional Ku band” refer to the 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space) bands, and are allocated to the FSS bands. They are also referred to as the 12/14 GHz bands. The term “extended Ku band” refers to the 10.7-11.7 GHz (space-to-Earth), 12.75-13.25 GHz (Earth-to-space), and 13.75-14.0 GHz (Earth-to-space) FSS bands. *See* 47 C.F.R. § 25.103.

² Petition to Deny or Defer of EchoStar Satellite Operating Company LLC (filed Jun. 9, 2014) (EchoStar Petition to Deny or Defer).

³ High-definition and ultra-high-definition programming, according to DIRECTV, will also provide subscribers with an incentive to upgrade to digital television sets and provide redundancy for the existing operations of Sky Brazil, a DIRECTV affiliate, at the 43° W.L. orbital location. DIRECTV also states that grant of this application will help it ensure that its system has the capacity to handle the substantially increased bandwidth demands of high-definition programming, and that the need for additional capacity is acute in Brazil. DIRECTV Enterprises, LLC Application for Authority to Launch and Operate the DIRECTV KU-45W at 45° W.L., IBFS File No. SAT-LOA-20130205-00016 (filed Feb. 5, 2013) (DIRECTV Application) at 3.

⁴ *Id.* at 2, 4.

conduct telemetry, tracking, and command (TT&C) operations to maintain KU-45W at the 45.2° W.L. orbital location using the following center frequencies: 11.695 MHz (space-to-Earth) and 14.495 MHz (Earth-to-space). DIRECTV states that KU-45W will receive programming from multiple uplink spot beams originating within Brazil and will transmit this programming throughout Brazil.⁵ As part of its application, DIRECTV requests a waiver of Section 25.114(c)(9) of the Commission's rules, which requires an applicant to provide the contact information for the remote control point of a satellite.⁶ DIRECTV also requests a waiver of Section 25.114 (d)(3), which specifies requirements for providing information concerning space station antenna gain contour(s) for transmit and receive beams.⁷ DIRECTV's application was placed on public notice on April 5, 2013.⁸ On July 16, 2013, DIRECTV amended its application to make changes to the technical specifications of the satellite, including adding the 13.75-14.0 GHz (Earth-to-space) frequency band.⁹ DIRECTV's amendment was placed on public notice on May 9, 2014.¹⁰

3. DIRECTV's initial application drew opposition from other satellite operators. SES Satellites (Gibraltar) Limited (SES) filed comments faulting DIRECTV for not including SES's NSS-703 satellite at the 47.05° W.L. orbital location in the two-degree spacing interference analysis DIRECTV provided in the application.¹¹ Intelsat License LLC (Intelsat) filed a Petition to Deny, arguing that the proposed operations of KU-45W would cause harmful interference to Intelsat's application to operate its Galaxy 11 space station at 44.8° W.L., which was filed almost four months prior to DIRECTV's filing of its KU-45W application.¹² Intelsat, however, subsequently withdrew its Petition to Deny, in light of an agreement reached with DIRECTV.¹³

⁵ *Id.* at 4.

⁶ 47 C.F.R. §25.114(c)(9); DIRECTV Application, Waiver Request at 1-2. Subsequent to the filing of the application, the Commission revised Section 25.114(c)(9). See *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, IB Docket. No. 12-267, Report and Order, 28 FCC Rcd 12403 (2013) (*Comprehensive Review of Licensing and Operating Rules for Satellite Services*). A new section – Section 25.172 – now details an applicant's obligations with regard to informing the Commission about TT&C arrangements. 47 C.F.R. §25.172. DIRECTV confirms that TT&C will be performed at the edges of the conventional and extended Ku-bands, as required by Section 25.202 (g) of the rules. DIRECTV Application at 4.

⁷ DIRECTV Application, Waiver Request at 1-2. 47 C.F.R. § 25.114 (d)(3) was amended in the *Comprehensive Review of Licensing and Operating Rules for Satellite Services*. Section 25.114(d)(3) now details an applicant's obligations with regard to the submission of antenna gain contours for transmit and receive antenna beams. 47 C.F.R. §25.114(d)(3)

⁸ *Policy Branch Information Satellite Space Applications Accepted for Filing*, Report No. SAT-00940, Public Notice (Int'l Bur., rel. Apr. 5, 2013).

⁹ Amendment to DIRECTV KU-45W Application, IBFS File No. SAT-AMD-20130716-00094 (filed July 16, 2013) (DIRECTV Amendment). The amendment made the following changes: (1) added the 13.75-14.0 GHz frequency band for uplink operations; (2) added a second Brazilian national downlink beam; (3) changed from two spot beams to a single national uplink beam; (4) added both 100 Watt and 150 Watt traveling wave tube amplifiers; (5) revised the link performance and budget analysis; and (6) revised the interference analysis. DIRECTV Amendment at 2.

¹⁰ See *Policy Branch Information, Satellite Space Applications Accepted for Filing*, Report No. SAT-01014, Public Notice (Int'l Bur. rel. May 9, 2014).

¹¹ Letter from Karis A. Hastings, Counsel for SES Satellites (Gibraltar) Limited, to Marlene H. Dortch, Secretary, FCC, IBFS File No. SAT-LOA-20130205-00016 (filed June 18, 2013).

¹² Petition to Deny of Intelsat License LLC (filed May 6, 2013). Intelsat filed its modification for Galaxy 11 to operate at the 44.8° W.L. orbital location on October 18, 2012. Application of Intelsat License LLC to Modify Authorization for Galaxy 11, SAT-MOD-20121018-00184 (filed Oct. 18, 2012).

¹³ Letter from Jennifer D. Hindin, Counsel for Intelsat License LLC, to Marlene H. Dortch, Secretary, FCC, IBFS File No. SAT-LOA-20130205-00016 (filed July 29, 2013). According to DIRECTV, the agreement reached with

(continued....)

4. SES and EchoStar Satellite Operating Corporation (EchoStar) responded to the public notice of DIRECTV's amendment. SES requests that the Commission condition any grant of authority with a requirement that KU-45W comply with the power levels specified in Section 25.212 of the Commission's rules,¹⁴ and that the Commission require DIRECTV to submit a revised interference analysis and a recalculated link budget due to alleged inadequacies in DIRECTV's interference analysis.¹⁵ EchoStar also questions the adequacy of DIRECTV's interference analysis and requests that the Commission either deny or defer action on DIRECTV's application until a revised interference analysis is provided.¹⁶ Additionally, EchoStar requests that DIRECTV justify why DIRECTV is willing to accept a particular noise temperature increase in the present proceeding, but it is unwilling to accept the same noise temperature increase proposed by EchoStar in a separate proceeding.¹⁷

5. DIRECTV replied to all pleadings. In response to SES, DIRECTV states that the interference analysis provided for its KU-45W space station is sufficient as filed and that there is no need to include NSS-703 as part of the analysis.¹⁸ DIRECTV does not oppose, however, the proposal of SES to condition any grant of authority to operate KU-45W on compliance with the power levels specified in Section 25.212.¹⁹ In response to EchoStar, DIRECTV argues that EchoStar is conflating the interference environments for separate regulatory regimes involving different frequency bands, and as a result, there is no inconsistency in DIRECTV's position on the acceptability of the particular noise temperature increase for operations involving KU-45W.²⁰

III. DISCUSSION

A. Consideration of GSO-like Satellite Applications

6. Pursuant to Section 25.158 of the Commission's rules, applications for geostationary orbit-like satellite systems are placed in a queue and considered in the order they are filed.²¹ If an applicant is legally, technically and otherwise qualified, and the proposed facilities and operations comply with all applicable rules, regulations and policies, and if grant of the application will serve the public interest, convenience and necessity, the application will be granted.²² Section 25.156 (a) also requires that the Commission take into consideration any pleadings or objections filed.

B. Legal and Technical Qualifications

7. DIRECTV's legal qualifications are a matter of record with the Commission and no one has questioned those qualifications. Furthermore, there are no questions bearing on technical or other qualifications, except for the matters raised by SES and EchoStar. As discussed below, we find that

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Intelsat "will enable the two companies to operate satellites at the same nominal orbital location without causing harmful interference to the other," and "promote more intensive use of valuable spectrum and orbital resources. DIRECT Amendment at 1.

¹⁴ Comments of SES Satellites (Gibraltar) Limited at 2-3 (filed June 8, 2014).

¹⁵ *Id.* at 4-5.

¹⁶ EchoStar Petition to Deny or Defer at 1.

¹⁷ *Id.* at 1-2.

¹⁸ Letter from William M. Wiltshire, Counsel for DIRECTV Enterprises LLC, to Marlene H. Dortch, Secretary, FCC (dated June 25, 2013) (*June 25, 2013 Letter*).

¹⁹ Consolidated Response of DIRECTV Enterprises, LLC, filed June 23, 2014 at 4-5 (DIRECTV Consolidated Response).

²⁰ *Id.* at 1-3.

²¹ 47 C.F.R. § 25.158.

²² 47 C.F.R. § 25.156 (a) and 47 C.F.R. § 25.158 (b)(3).

DIRECTV is legally, technically, and otherwise qualified to hold a satellite license.

C. Compliance with Rules and Regulations

1. Adequacy of Interference Analysis

8. Applicants for authority to operate geostationary orbit FSS space stations must demonstrate the following: (i) that the downlink transmissions from a proposed space station will not harmfully interfere with reception of co-frequency downlink transmissions from any authorized geostationary orbit space station less than two degrees away or with reception of co-frequency downlinks from a current or future geostationary orbit space station two degrees away by earth stations with gain patterns consistent with the relevant routine limits in Section 25.209, and (ii) uplink transmissions to their space stations will not harmfully interfere with uplink reception of any authorized geostationary orbit space station less than two degrees away or with uplink reception of a current or future satellite two degrees away.²³

9. We agree with DIRECTV that it is not necessary to include SES's NSS-703 space station at the 47.05° W.L. orbital location in the two-degree spacing interference analysis provided for KU-45W at 45.2° W.L. Although NSS-703 operates in the same frequency bands as those proposed for KU-45W and is less than two degrees away, NSS-703 is not licensed by the United States, but rather by the Administration of the Netherlands.²⁴ SES was granted access to the U.S. market for NSS-703 in the Ku-band, which accords it the same treatment as a U.S.-licensed space station under the Commission's *DISCO II* policy,²⁵ but that market access is limited to a spot beam within the United States and does not extend to operations of beams on NSS-703 that serve areas outside of the United States.²⁶ Accordingly, any potential interference arising from operations of space stations licensed by different Administrations that are not within the scope of a grant of access to the U.S. market are appropriately addressed through the satellite coordination procedures of the International Telecommunication Union (ITU) and need not be addressed in an applicant's two degree spacing interference analysis.²⁷

10. We also decline to defer or deny DIRECTV's application for KU-45W, as requested by SES and EchoStar, based on the alleged deficiency of DIRECTV's interference analysis, or require that DIRECTV submit a new interference analysis. DIRECTV acknowledges that it proposes to operate KU-45W at higher power levels than those contemplated in the Commission's two-degree spacing rules.²⁸ Thus, DIRECTV performed correctly its interference analysis pursuant to the third method described in the public notice issued by the Satellite Division in 2003 clarifying the interference analysis

²³ See *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Further Notice of Proposed Rulemaking, IB Docket No. 12-267, 29 FCC Rcd 12116, ¶ 38 (2014)(describing two-degree spacing interference analysis and citing 47 C.F.R. § 25.140(a) and (b)).

²⁴ SES Satellites (Gibraltar) Limited Petition for Declaratory Ruling to be Added to the Permitted List, DA 11-1713, Public Notice (Int'l Bur., rel. Oct. 14, 2011).

²⁵ *Amendment of the Commission's Policies to Allow Non-U.S. Licensed Space Stations providing Domestic and International Service in the United States*, Report and Order, 12 FCC Rcd 24094 (1997). See also Letter from Jose Albuquerque, Chief, Satellite Division, to John P. Janka, Counsel for Inmarsat Hawaii Inc., IBFS File No. SAT-LOI-20130319-00035 (dated Oct. 30, 2013)(requesting Inmarsat Hawaii to provide an interference analysis that accounted for a Brazilian-licensed space station that was granted access to the U.S. market in the same frequency bands that Inmarsat Hawaii was seeking U.S. market access from a location with less than two degrees separation).

²⁶ See *June 25, 2013 Letter* at 2 (stating that the area covered by KU-45W is outside of the -30 dB contour of the spot beam of the NSS-703 satellite for which U.S. market access was granted).

²⁷ We note, however, that NSS-703 was retired from operations and placed into a disposal orbit subsequent to the end of the comment period for this application. See Letter from Karis A. Hastings, Counsel for SES, to Marlene H. Dortch, Secretary, FCC, IBFS File No. SAT-PPL-20101103-00230 (filed Dec. 3, 2014).

²⁸ DIRECTV Consolidated Response at 4.

requirements in Section 25.140(b)(2) of the Commission's rules.²⁹ Furthermore, space station applicants have routinely requested permission to deviate from the parameters of the two-degree-spacing environment when such deviations are permitted under the terms of coordination agreements, and the Commission has routinely granted such requests.³⁰ Under current rules and practice, operating authority may be obtained, based on coordination agreements, for a geostationary orbit FSS system that does not conform to technical limits for two-degree compatibility. As explicitly indicated in the ordering clauses, operations at these higher power levels cannot be conducted until all required coordinations are completed.³¹

2. Appendix 30B Power Levels

11. EchoStar contends that DIRECTV's downlink interference calculations in this proceeding involving "non-planned"³² bands are higher than what DIRECTV argues are acceptable in a separate proceeding involving EchoStar's proposed operations in the Appendix 30B planned bands.³³ The Appendix 30B proceeding to which EchoStar refers concerns a pending EchoStar request for launch and operating authority for a FSS satellite to be located at 45.1° W.L. that would provide DTH service to Brazil using Appendix 30B frequencies. Because the present application and EchoStar's Appendix 30B application involve different frequency bands and regulatory regimes (*i.e.*, planned band vs. non-planned band), there is no reason to require DIRECTV to "justify" or reconcile its interference calculations in the present proceeding with its submissions in the Appendix 30B case. EchoStar has not demonstrated, or even alleged, that DIRECTV's proposed operations in the present proceeding will harm any existing or proposed operations of EchoStar. We evaluate each application on its own merits and will address any arguments in favor of, or in opposition to, EchoStar's proposed operations in planned bands at 45.1° W.L. in that separate proceeding.

3. Waiver Requests

12. DIRECTV requested waivers of two Commission rules, Sections 25.114 (c)(9) and 25.114 (d)(3), that were subsequently amended as part of a comprehensive review of the Commission's satellite licensing and operating rules.³⁴ Section 25.114 (c)(9) of the Commission's rules was replaced by Section 25.172,³⁵ and Section 24.114(d)(3) was replaced by Section 25.114 (c)(4)(vi)³⁶, and the requirements of the new rules obviate the need for the requested waivers.

13. Initially, DIRECTV requested a waiver of Section 25.114 (c)(9) because it was unable to

²⁹ 47 C.F.R. § 25.140(b)(2); *Clarification of 47 C.F.R. Section 25.140(b)(2) Space Station Application Interference Analysis*, Report No. SPB-195, 18 FCC Rcd 25099 (2003).

³⁰ *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, IB Docket. No. 12-267, Further Notice of Proposed Rulemaking, 29 FCC Rcd 12116, ¶¶ 38-39 (2014).

³¹ *See infra*, para. 21.

³² The ITU Radio Regulations include allocations for satellite use on both a planned and non-planned basis. In planned bands there are specific frequencies, coverages, and orbital locations pre-assigned to particular countries, while operation in non-planned bands relies on a more dynamic process in which coordination between different satellite network submissions plays a key role.

³³ *See* EchoStar Satellite Operating Corporation Application for Authority to Launch and Operate the ECHO-45W Satellite at 45.1° W.L., IBFS File No. SAT-LOA-20120921-00152 (filed Sept. 21, 2012), and EchoStar Satellite Operating Corporation Application for Authority to Launch and Operate ECHO-45W Fixed-Satellite Service Payload, IBFS File No. SAT-AMD-20130614-00085 (filed June 14, 2013).

³⁴ *See supra*, n. 6-7.

³⁵ *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, 28 FCC Rcd at 12415, ¶ 29.

³⁶ *Id.* at 12434, ¶ 9.

include in its Schedule S certain TT&C information.³⁷ The new rule, however, gives an applicant greater flexibility with regard to the reporting of TT&C arrangements because it requires that the TT&C arrangements be filed at any time prior to a space station commencing operations with a U.S. earth station.³⁸ Thus, there is no need to approve a waiver and DIRECTV is not disadvantaged by its compliance with the new rule.

14. Similarly, DIRECTV requested a waiver of Section 25.114 (d)(3) only as it applies to the beam pattern of KU-45W's wide-angle TT&C bi-cone and pipe antennas.³⁹ DIRECTV stated that it cannot provide the beam pattern information in the .gxt format because the satellite manufacturer does not provide the information in the .gxt format. Nonetheless, DIRECTV believes other parts of its application provide sufficient information for the Commission to evaluate the potential for harmful interference from the operation of KU-45W. The new rule, however, does not apply to wide-angle bi-cone and pipe antennas because their "contour at 8 dB below peak falls entirely beyond the edge of the visible Earth." Consequently, no waiver is required.

IV. ORDERING CLAUSES

15. IT IS ORDERED that the application of DIRECTV Enterprises, LLC, IBFS File No. SAT-LOA-20130205-00016, as amended by IBFS File No. SAT-AMD-20130716-00094, to construct, launch, and operate a geostationary orbit space station, to be known as DIRECTV KU-45W (S2893), at the 45.2° W.L. orbital location, IS GRANTED. Accordingly, DIRECTV is authorized to operate the DIRECTV KU-45W space station at the 45.2° W.L. orbital location to provide FSS, including DTH services, to Brazil in the 10.95-11.2 GHz, 11.45-11.7 GHz, and 11.95-12.2 GHz (space-to-Earth) frequency bands, and the 13.75-14.0 GHz and 14.0-14.5 GHz (Earth-to-space) frequency bands.⁴⁰ DIRECTV is also authorized to conduct TT&C operations necessary to maintain DIRECTV KU-45W at the 45.2° W.L. orbital location using the following center frequencies: 11.695 MHz (space-to-Earth) and 14.495 MHz (Earth-to-space).

16. IT IS FURTHER ORDERED that the Petition to Deny or Defer filed by EchoStar Satellite Operating Company LLC IS DENIED for the reasons stated herein.

17. IT IS FURTHER ORDERED that DIRECTV must prepare the necessary information, as may be required for submission to the International Telecommunication Union (ITU), to initiate and complete the advance publication, international coordination, due diligence, and notification process for this space station, in accordance with the ITU Radio Regulations. DIRECTV shall be responsible for all cost-recovery fees associated with ITU filings. No protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual administrations, by successfully completing coordination agreements. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments with other administrations. *See* 47 C.F.R. § 25.111(b).

18. IT IS FURTHER ORDERED that in connection with the provision of service in any particular country, DIRECTV is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country.

19. IT IS FURTHER ORDERED that DIRECTV must operate the DIRECTV KU-45W space

³⁷ DIRECTV stated that it could not provide the information because it has not yet contracted for the construction of KU-45W. DIRECTV Application, Waiver Request at 1-2. DIRECTV expressed confidence that the TT&C details can be provided "years before launch" of KU-45W.

³⁸ *See* 47 C.F.R. § 25.172 (a).

³⁹ DIRECTV Application, Waiver Request at 2.

⁴⁰ *Id.* at 2, 4.

station at the 45.2° W.L. orbital location in compliance with all existing and future coordination agreements.

20. IT IS FURTHER ORDERED that DIRECTV must maintain the DIRECTV KU-45W space station with an east-west longitudinal station-keeping tolerance of $\pm 0.05^\circ$ of its assigned 45.2° W.L. orbital location.

21. IT IS FURTHER ORDERED that the operations of DIRECTV KU-45W and associated earth stations must comport with the applicable uplink limits in 47 C.F.R. §§ 25.211, 25.218, 25.222, 25.226, and/or 25.227, and the downlink limit in 47 C.F.R. § 25.212(c)(2), unless DIRECTV coordinates any non-conforming operation with the operations of U.S.-licensed geostationary orbit space stations within 6 degrees of the 45.2° W.L. orbital location. Non-conforming operation must also be coordinated with respect to operation of non-U.S. licensed space stations within 6 degrees of 45.2° W.L. communicating with U.S.-licensed earth stations pursuant to Section 25.137 of the Commission's rules.

22. IT IS FURTHER ORDERED that operation of DIRECTV KU-45W in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.95-12.2 GHz, 13.75-14.0 GHz, and 14.0-14.5 GHz frequency bands will be subject to coordination and notification pursuant to the ITU Radio Regulations with respect to space stations which are not U.S. licensed or for which operation pursuant to Section 25.137 has not been authorized.

23. DIRECTV Enterprises, LLC's geostationary orbit Ku-band space station at the 45.2° W.L. orbital location must be constructed, launched, and placed into operation in accordance with the technical parameters and terms and conditions of this authorization by these specified time periods following the date of authorization:

- a. Execute a binding contract for construction within one year (March 4, 2016);
- b. Complete the Critical Design Review within two years (March 4, 2017);
- c. Commence construction within three years (March 4, 2018);
- d. Launch and begin operations within five years (March 4, 2020); and


DIRECTV must file a bond with the Commission in the amount of \$3 million, pursuant to the procedures set forth in Public Notice, DA 03-2602, 18 FCC Rcd 16283 (2003), within 30 days of the date of this grant (April 3, 2015). Failure to meet any of these dates shall render this authorization null and void.

24. The license term for this geostationary orbit Ku-band space station, Call Sign S2893, is 15 years, and will begin to run on the date that DIRECTV Enterprises, LLC certifies to the Commission that the satellite has been successfully placed into orbit and its operation fully conforms to the terms and conditions of this authorization. DIRECTV Enterprises, LLC shall file this certification with the Chief, Satellite Division, International Bureau, within 10 business days of the space station being put into operation.

25. DIRECTV Enterprises, LLC is afforded 30 days from the date of release of this grant and authorization to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.

26. This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of the public notice indicating that this action was taken.

FEDERAL COMMUNICATIONS COMMISSION


Jose P. Albuquerque
Chief, Satellite Division
International Bureau