

Before the
FEDERAL COMMUNICATIONS COMMISSION
 Washington, DC 20554

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Federal Communications Commission
 Office of the Secretary

In the Matter of

Notification of "Non-Routine" Transmission
 Levels pursuant to Section 25.140(d) of the
 Commission Rules

IB Docket No. 12-267, FCC 15-167,
 and DA 18-779, Report No. SPB-275

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**PETITION FOR CLARIFICATION OR
 DECLARATORY RULING OF EUTELSAT S.A.**

Eutelsat S.A. ("Eutelsat") hereby petitions the International Bureau ("Bureau") of the Federal Communications Commission ("FCC" or "Commission"), pursuant to Section 1.2 of the Commission Rules ("Rules"),¹ to clarify or issue a declaratory ruling to remove uncertainty regarding the policies associated with notifications of "non-routine" earth station and satellite transmission power levels submitted pursuant to Section 25.140(d) of the Rules,² such as those included in a recent FCC public notice.³ Eutelsat seeks clarification that, consistent with the Commission's order adopting Section 25.140(d), (i) continuation of non-routine transmission levels notified by a satellite operator pursuant to Section 25.140(d) is necessarily limited to previously authorized power levels; and (ii) inaccurate information in Section 25.140(d) notifications must be disregarded for purposes of Section 25.140(d), and thus cannot enable higher-power operations or constrain the operation of a satellite operating at routine power levels.

¹ See 47 C.F.R. §1.2.

² See 47 C.F.R. §25.140(d). See *Comprehensive Review of Licensing & Operating Rules for Satellite Services, Second Report and Order*, IB Docket No. 12-267, Second Report and Order, FCC 15-167, 30 FCC Rcd 14713 (2015) ("*Second Report and Order*") (adopting current Section 25.140(d)).

³ Public Notice, Satellite Policy Branch Information, Notifications of "Non-Routine" Transmission Levels, Report No. SPB-275, DA 18-779 (released July 26, 2018) ("Public Notice").

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I. Background

The Commission has adopted and consistently reaffirmed a licensing policy for geostationary satellite orbit (“GSO”) fixed-satellite service (“FSS”) satellite operators that is predicated upon two-degree orbital spacing.⁴ The Commission Rules also have long permitted GSO FSS operations that exceed technical limits for two-degree compatibility in appropriate circumstances.⁵ Nonetheless, the two-degree spacing policy previously required non-conforming transmissions (*i.e.*, with higher off-axis power) to be reduced to conforming power levels absent coordination with the operator of a subsequently deployed, two-degree-compliant satellite.⁶

In the *Second Report and Order*, the Commission modified its two-degree spacing policy to afford limited protection for higher-power operations.⁷ Section 25.140(d) was adopted to permit continuation of “non-routine” operations, subject to a notification and public notice procedure.⁸ Satellite operators may continue to operate at notified, non-routine power levels and satellite applicants and foreign satellite operators seeking U.S. market access after such notification must accept interference from the non-routine operations.

⁴ “Two-degree spacing” refers to the angular separation in the geostationary arc between adjacent, co-frequency satellites. The two-degree spacing policy and associated operational limits were adopted to “increase, to the maximum extent feasible, the number of orbital locations from which GSO FSS satellites can provide service in the United States.” *See, e.g., Second Report and Order at ¶92, and Licensing & Operating Rules for Satellite Services, Second Report and Order; Licensing of Space Stations in the Domestic Fixed-Satellite Service and Related Revisions*, CC Docket No. 81-704, Report and Order, 48 FR 40233 (1983).

⁵ *See, e.g.*, 47 C.F.R. §25.220 (Non-conforming transmit/receive earth station operations) (2014) (permitting such operations subject to coordination); *see also* 47 C.F.R. §25.220 (Non-routine transmit/receive earth station operations) (2018) (same).

⁶ *See Second Report and Order at ¶96.*

⁷ *See id.* at ¶¶105-110.

⁸ *See id.* at ¶109.

The Bureau recently issued a public notice of non-routine power level notifications as contemplated in the *Second Report and Order*.⁹ This petition seeks guidance on the issues identified above that arose in the context of a specific Section 25.140(d) notification included in the Public Notice,¹⁰ but which are also questions of general applicability regarding the scope and effectiveness of Section 25.140(d) notifications.

II. Discussion

The fundamental purpose of Section 25.140(d) is to permit continued satellite and earth station operations at non-routine power levels to facilitate uninterrupted service to the public as a limited exception to the two-degree spacing policy.¹¹ The Communications Act of 1934, as amended, and other Commission Rules and policies establish that appropriate authority is required to commence non-routine operations in the first instance,¹² and the *Second Report and Order* otherwise reaffirms the two-degree spacing policy, stating that “eliminating it altogether would not serve the public interest.”¹³ Eutelsat seeks clarification that continuation of non-routine transmissions under Section 25.140(d) is limited to previously authorized power levels,

⁹ See 47 C.F.R. §§ 25.151(a)(11) and 25.140(d)(2).

¹⁰ See Letter from Petra A. Vorwig, SES Senior Legal & Regulatory Counsel, to Marlene H. Dortch, Secretary, Federal Communications Commission, File Nos. SAT-MOD-20170518-00073 et al., dated Jan. 10, 2018 (“SES Section 25.140(d) Notification”). The questions arose in the U.S. market access proceeding for the EUTELSAT 133WA satellite. See *Petition for Declaratory Ruling for EUTELSAT 133WA to be Added to the Permitted List*, File No. SAT-PPL-20180302-00018, Call Sign S3031 (granted August 16, 2018).

¹¹ See *Second Report and Order* at ¶ 108 (“If future operators are given adequate notice of such pre-existing, non-routine operation, we do not believe it serves the public interest to require the existing system to reduce transmit power density levels to protect a later authorized, two-degree compliant operator, in a manner that may preclude continued provision of the service....”).

¹² See e.g., 47 U.S.C. §301 and 47 C.F.R. §25.220.

¹³ *Second Report and Order* at ¶ 98.

and that Section 25.140(d) notifications are ineffective to the extent they contain information relating to erroneous or unauthorized power levels.

A. Continuation of Non-Routine Transmissions under Section 25.140(d) Is Limited to Previously Authorized Power Levels

Section 25.140(d) provides that “[a]n operator of a GSO FSS space station ... may notify the Commission of its non-routine transmission levels and be relieved of the obligation to coordinate such levels with later applicants and petitioners.”¹⁴ A plain reading of the rule indicates there must be previously authorized, non-routine transmissions to take advantage of the provision. Any doubt regarding this requirement is eliminated by the *Second Report and Order*:

“Most commenters that address this issue support providing greater certainty to space station operators that they may continue to perform coordinated, non-routine operations upon the arrival of an adjacent, two-degree-compliant space station.”
(*Second Report and Order* at ¶106, emphasis added)

“As a prerequisite to any continued non-routine operation in the face of a non-consenting new neighbor, DIRECTV, EchoStar, and SES support a requirement that the existing operator notify the Commission of the details of its non-routine operations in a manner to enable subsequent operators to assess the potential interference environment.”
(*Second Report and Order* at ¶107, emphasis added)

“We substantially adopt the proposal of DIRECTV, EchoStar, and SES to allow continued transmissions above routine levels upon notice to the Commission, even if such levels are not coordinated with later applicants and petitioners for market access.”
(*Second Report and Order* at ¶108, emphasis added)

“In any case, we expect that the procedure for continuation of non-routine transmissions we adopt here will encourage parties to reach coordination agreements that will preserve to the maximum extent possible the continuity of existing services.”
(*Second Report and Order* at ¶110, emphasis added)

The Commission’s language clearly indicates that Section 25.140(d)’s procedure of notification and public notice for continuation of non-routine transmissions only applies to

¹⁴ See 47 C.F.R. §25.140(d).

previously authorized power levels.¹⁵ In addition, consistent with this limited exception to the two-degree spacing policy and the Commission's objective to ensure continuation service to the public, the plain language of Section 25.140(d) enables notification of non-routine power levels and not specific non-routine operations, so future non-routine operations consistent with notified power levels would be permissible.¹⁶

Section 25.140(d) does not expand operating authority or preserve an "option" to initiate future operations at non-routine power levels. Such an interpretation of Section 25.140(d) would be contrary to the Communications Act and the Commission's satellite and earth station licensing rules (*e.g.*, only a license or market access grant modification can expand authorized operations). Such an interpretation also would run counter to the fundamental approach of Section 25.140(d) as a limited exception to the Commission's two-degree spacing policy to preserve the continuity of service associated with authorized, non-routine power levels.¹⁷

B. The EUTELSAT 133WA Market Access Proceeding Provides an Example of the Uncertainty Regarding Section 25.140(d) Notifications

Notwithstanding the clear language of the *Second Report and Order*, uncertainty regarding Section 25.140(d) notifications recently arose in the EUTELSAT 133WA market

¹⁵ The language in the *Second Report and Order* suggests that non-routine power levels preserved by Section 25.140(d) must be both authorized and in operation. It is possible, however, that Commission authority alone could support a Section 25.140(d) notification. Such an approach would facilitate early notice to potentially affected parties, would afford time to commence authorized operations consistent with the Commission's Rules, and would give effect to grants of non-routine operating authority for purposes of Section 25.140(d).

¹⁶ *Second Report and Order* at ¶¶ 108-109.

¹⁷ *See id.*

access proceeding,¹⁸ which is briefly summarized for context and to demonstrate the need for Bureau guidance on the issues identified herein.

In 2017, SES applied for a license to move the AMC-4 satellite to its current position at the 134.9° W.L. orbital location.¹⁹ SES was issued a license by the Commission based on the specific representations in this application.²⁰ SES subsequently submitted a Section 25.140(d) notification claiming power levels in excess of those in the AMC-4 Modification Application and associated earth station licenses, and argued that EUTELSAT 133WA must accommodate AMC-4's higher-power operations.²¹

The International Bureau Filing System ("IBFS") indicates that the only earth stations that could potentially operate at higher, non-routine power levels with AMC-4 are Gogo HR6400 (AES1) earth station aboard aircraft ("ESAA") terminals.²² However, it does not appear that this

¹⁸ See *supra* n. 10.

¹⁹ *Application of SES AMERICOM*, File No. SAT-MOD-20170518-00073, Call Sign S2135 ("AMC-4 Modification Application"). Among other things, SES indicated in its application that "the input power density of the uplink digital carriers of earth stations operating with AMC-4 will not exceed -44 dBW/Hz." *Id.* at Technical Appendix ¶5.

²⁰ *SES AMERICOM License*, File No. SAT-MOD-20170518-00073, Call Sign S2135 (granted June 31, 2017) ("AMC-4 License"). In granting the AMC-4 License, as it does in the ordinary course, the FCC incorporated the contents of the underlying application into the grant. See *id.*, Attachment to Grant, page 1 ("... operations under this grant must comport with the legal and technical specifications set forth by the applicant or petitioner....").

²¹ *Comments of SES AMERICOM, Inc.*, File No. SAT-PPL-20180302-00018, Call Sign S3031 (filed May 7, 2018).

²² See *AC BIDCO Radio Station Authorization*, File No. SES-MFS-20170725-00793, Call Sign E120106 (granted October 4, 2017); see also *AC BIDCO Radio Station Authorization SES-MFS-20171220-01351*, Call Sign E120106 (granted March 9, 2018), Call Sign E120106. The Gogo licenses include two ESAA terminals – the smaller HR6400 (AES1) and the larger 2Ku (AES2) terminals. AES2 operates at the routine uplink power of -50 dBW/Hz, but the smaller AES1 could potentially communicate at the claimed higher, non-routine power level (a maximum uplink EIRP spectral density of 22.59 dBW/4 kHz and a maximum antenna gain of 29.0 dBi results in a maximum uplink power level of $22.59 - 29.0 - 10 \cdot \log_{10}(4000) = -42.43$ dBW/Hz).

terminal is authorized to communicate with AMC-4.²³ Thus, no earth stations appear authorized to communicate with AMC-4 at non-routine power levels.

Although the AMC-4 License contemplates that earth station uplink power could be as high as -44 dBW/Hz, no earth station operations have been authorized with the satellite above the routine -50 dBW/Hz two-degree spacing level. The SES Section 25.140(d) Notification included a non-routine uplink power level of -42 dBW/Hz, which is inconsistent with both the AMC-4 Modification Application and authorized earth station power levels. Thus, the notification would not appear to be effective for purposes of Section 25.140(d).

C. The Bureau Should Provide Guidance on the Permissible Scope of Section 25.140(d) Notifications and the Impact of Exceeding such Scope

Although the circumstances described above are specific to the SES Section 25.140(d) Notification relating to AMC-4, the underlying questions are issues of general applicability: (i) what is the permissible scope of authority that can be preserved pursuant to a Section 25.140(d) notification; and (ii) what is the effect of a Section 25.140(d) notification that includes information beyond the permissible scope?

²³ The Gogo licenses *inadvertently* include AMC-4 as an authorized point of communication for the AES1 terminal, but Gogo has repeatedly indicated AES1 does not communicate with AMC-4. *See* AC BIDCO Modification Application, File No. SES-MFS-20170725-00793, Call Sign E120106 (filed August 16, 2017), Narrative at p. 2 and Annex 2 (“AC BidCo proposes to use only the ThinKom model 2Ku AES2 terminals with AMC-4.”). In a separate modification application, Gogo confirmed that the AES1 terminal does not communicate with AMC-4. *See* AC BIDCO Modification Application, File No. SES-MFS-20171220-01351, Call Sign E120106 (filed December 20, 2017), Narrative, Annex 2, n.2 (AMC-4 is “only used for communications with the ThinKom 2Ku antenna system, designated AES2.”). Again, earlier this month, Gogo reaffirmed that the AES1 terminal does not communicate with AMC-4. *See* AC BidCo LLC, File No. SES-MFS-20180813-02152, Call Sign E120106, Modification Application Narrative at Annex 2 (Updated Spacecraft and Teleport Tables) n.2 (the AMC-4 satellite “is only used for communications with the ThinKom 2Ku antenna system”).

Without additional guidance, neither incumbent satellite operators with non-routine transmissions nor operators of new two-degree-compliant satellites will have sufficient certainty regarding Section 25.140(d) notifications. Incumbent operators should be aware of the permissible scope of such notifications to preserve non-routine transmit power levels, and new entrants should be able to appropriately consider interference and other operational constraints from non-routine power levels to the extent preserved by Section 25.140(d).

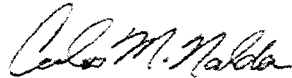
Based on the plain language of Section 25.140(d) and Commission guidance in the *Second Report and Order*, Eutelsat respectfully submits that only previously authorized non-routine power levels can be preserved pursuant to Section 25.140(d). Eutelsat further submits that Section 25.140(d) notifications should be considered ineffective to the extent they contain information regarding erroneous or unauthorized power levels. Nonetheless, guidance from the Bureau with respect to these issues is necessary to resolve uncertainty such as that described above.

III. Conclusion

For the foregoing reasons, Eutelsat respectfully asks the Bureau to provide guidance regarding the scope and effectiveness of notifications of non-routine earth station and satellite transmission levels under Section 25.140(d). Specifically, the Commission should clarify via declaratory ruling or otherwise that (i) continuation of non-routine transmissions pursuant to Section 25.140(d) is limited to previously authorized power levels; and (ii) Section 25.140(d)

notifications are considered ineffective to the extent they contain inaccurate information regarding previously authorized power levels.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Carlos M. Nalda".

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On behalf of Eutelsat S.A.

August 27, 2018