

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington D.C. 20554**

In the Matter of)	
)	
Audacy Corporation)	File No. SAT-LOA-20161115-00117
)	
Application for Authority to Launch and Operate a Non-Geostationary Medium Earth Orbit Satellite System In the Fixed- and Inter-Satellite Services)	Call Sign S2982
)	

**OPPOSITION OF AUDACY CORPORATION TO REQUEST FOR CLARIFICATION
OR, IN THE ALTERNATIVE, PARTIAL PETITION FOR RECONSIDERATION**

Audacy Corporation (“Audacy”), by its undersigned attorneys, hereby opposes the Request for Clarification, or, in the alternative, Partial Petition for Reconsideration (“Request & Petition”) filed by Elefante Group, Inc. (“Elefante”)¹ of the Order and Authorization granting Audacy’s Application for Authority to Launch and Operate a Non-Geostationary Medium Earth Orbit Satellite System in the Fixed- and Inter-Satellite Services (“Audacy Grant Order”).²

I. BACKGROUND AND SUMMARY

Audacy’s space-based data relay constellation (the “Audacy Network”), licensed under Call Sign S2982,³ will provide Non-Geostationary (“NGSO”) spacecraft users with continuous, high-speed, low-latency communications, through the deployment and operation of three Medium Earth Orbit (“MEO”) relay satellites and two initial Gateway earth stations

¹ *Audacy Corporation Application for Authority to Launch and Operate a Non-Geostationary Medium Earth Orbit Satellite System in the Fixed- and Inter-Satellite Services*, IB File No. SAT-LOA-20161115-00117, Elefante Group, Inc. Request for Clarification or, in the Alternative, Partial Petition for Reconsideration (filed July 6, 2018).

² *See Audacy Corporation Application for Authority to Launch and Operate a Non-Geostationary medium Earth Orbit Satellite System in the Fixed- and Inter-Satellite Services*, FCC 18-72, Order and Authorization, IBFS File No. SAT-LOA-20161115-00117 (rel. June 6, 2018) (“Audacy Grant Order”).

³ *See id.*

(“Gateways”). Audacy’s system architecture promotes highly efficient use of spectrum, employing extensive frequency reuse to provide communication to thousands of user platforms simultaneously, easing the burden on not only regulatory authorities but also on satellite operators themselves, who will no longer need to build out extensive ground infrastructure to access to their spacecraft. The Audacy Network, targeting launch and commencement of operations in 2020, will provide communication services to and from its users via internationally allocated K-band Inter-Satellite Service (“ISS”) spectrum, and to and from Gateways using internationally allocated V-band Fixed Satellite Service (“FSS”) spectrum.

Elefante filed its initial comments in response to Audacy’s NGSO Application in June 2017, generally arguing that the Audacy Network presented the “potential for harmful interference” in certain bands, noting its “plans in the near future to meet with Commission staff, file written submissions in relevant Commission proceedings, and take other steps to advance its objective of obtaining authority to implement its systems in existing spectrum allocations in bands above 15 GHz.”⁴ Elefante’s July 2017 Reply Comments requested that the Commission defer action on Audacy’s NGSO Application, requesting additional information regarding spectral compatibility so as not to impede “emerging Fixed and Mobile solutions,” such as Elefante’s speculative aerial platform operations.⁵ After a lengthy silence, Elefante reemerged in the proceeding in April 2018, noting its intention to “file a petition for rulemaking to seeking [sic] a regulatory framework for the operation and licensing of” its proposed services, claiming that its service would “support high capacity, extremely spectrally efficient, fixed

⁴ *Audacy Corporation Application for Authority to Launch and Operate a Non-Geostationary Medium Earth Orbit Satellite System in the Fixed- and Inter-Satellite Services*, IB File No. SAT-LOA-20161115-00117, Elefante Group, Inc. Comments at 3 (filed June 26, 2017) (“Elefante Comments”).

⁵ *Audacy Corporation Application for Authority to Launch and Operate a Non-Geostationary Medium Earth Orbit Satellite System in the Fixed- and Inter-Satellite Services*, IB File No. SAT-LOA-20161115-00117, Elefante Group, Inc. Reply Comments at 1 (filed July 14, 2017) (“Elefante Reply”).

communications operating compatibly with other incumbent users in the same spectrum.”⁶ At this time, Elefante opined that while it had not analyzed compatibility with Audacy’s Network, that it was expected to “be more benign than Iridium.”⁷ Subsequently, on May 16, 2018, 547 days after Audacy filed its NGSO Application and the day before the Commission released the draft order approving the item, Elefante filed an ex parte letter with an eleventh-hour request that the Commission “expressly confirm that Audacy’s third-party customer User Satellites must operate without protection from fixed services,” or, in the alternative, “apply an interference protection criterion” for Audacy’s User Satellites.⁸ Most recently, Elefante filed its petition for rulemaking on May 31, less than one week prior to the Commission’s June 6 grant of Audacy’s Application.⁹ Elefante filed the instant Request & Petition, and subsequently filed a supplement the day before the response deadline, to correct several inaccuracies therein.¹⁰

As discussed herein, the arguments presented in Elefante’s Request & Petition, as amended by its last-minute correction, have been fully considered by the Commission and should be denied, given that no reasonable justification has been provided for the Commission to revisit these issues at the present time.

⁶ *Audacy Corporation Application for Authority to Launch and Operate a Non-Geostationary Medium Earth Orbit Satellite System in the Fixed- and Inter-Satellite Services*, IB File No. SAT-LOA-20161115-00117, Elefante Group, Inc. Ex Parte Letter at 1 (filed April 20, 2018).

⁷ *Id.* at 14.

⁸ *Audacy Corporation Application for Authority to Launch and Operate a Non-Geostationary Medium Earth Orbit Satellite System in the Fixed- and Inter-Satellite Services*, IB File No. SAT-LOA-20161115-00117, Elefante Group, Inc. Ex Parte Letter at 3 (filed May 16, 2018) (“Elefante May 16 Ex Parte”).

⁹ *See Petition to Modify Parts 2 and 101 of the Commission’s Rules to Enable Timely Deployment of Fixed Stratospheric-Based Communications Services in the 21.5-23.6, 25.25-27.5, 71-76, and 81-86 GHz Bands*, Petition for Rulemaking, RM-11809 (filed May 31, 2018) (“Elefante PFR”).

¹⁰ *See generally Request & Petition; Audacy Corporation Application for Authority to Launch and Operate a Non-Geostationary Medium Earth Orbit Satellite System in the Fixed- and Inter-Satellite Services*, IB File No. SAT-LOA-20161115-00117, Elefante Group, Inc. Correction (filed July 18, 2018).

II. THE COMMISSION PROPERLY CONSIDERED AND DISPOSED OF ELEFANTE’S SPECULATIVE ARGUMENTS RELATED TO HAPS INTERFERENCE

In its Request & Petition, Elefante argues that the Commission mischaracterized or incorrectly concluded arguments it presented.¹¹ On the contrary, the Commission “fully considered, and rejected”¹² Elefante arguments raised during the pendency of Audacy’s NGSO application proceeding, and the instant Request & Petition fails “to identify any material error, omission, or reason warranting reconsideration.”¹³

A. Elefante Provides No Reasonable Justification for Revisiting Its 23 GHz Band Interference Concerns

Elefante argues that the Commission “mischaracterized its arguments”¹⁴ with respect to interference concerns in the 23 GHz Band. Specifically, Elefante argues that “the Commission fails to explain how Elefante’s concern about Audacy’s use of the 22.55-23.55 GHz band is largely mooted by Audacy’s withdrawal of its request for use of the 23.18-23.38 GHz band,”¹⁵ arguing that such a decision only accommodates Iridium’s concerns and doesn’t address Elefante’s hypothetical balloon-based service.¹⁶ Audacy respectfully disagrees.

As Elefante readily acknowledges, Iridium is presently the sole incumbent spectrum user in the 22.55-23.55 GHz band potentially affected by Audacy’s NGSO network.¹⁷ In response to Audacy’s NGSO application, Iridium raised a concern about potential interference into the inter-satellite links of an operational satellite network authorized under effective Part 25 service rules

¹¹ Request & Petition at 6-7.

¹² 47 C.F.R. § 1.106(p)(1).

¹³ 47 C.F.R. § 1.106(p)(3).

¹⁴ Request & Petition at 5.

¹⁵ *Id.* at 6.

¹⁶ *See id.*

¹⁷ In its comments filed in response to Audacy’s NGSO application, Elefante noted that Iridium’s system “currently has the sole U.S. commercial ISS authorization in the 22.55-23.55 GHz band.” Elefante Comments at 7.

and a harmonized, global allocation for mobile satellite services.¹⁸ Audacy addressed Iridium’s concerns by amending its application and removing the inter-satellite service (“ISS”) frequencies in the 23.18-23.38 GHz sub-band from its network, which prompted Iridium to withdraw its Petition to Deny and the Commission to dismiss it as moot.¹⁹

In contrast to Iridium’s issue, which involved a real network and real end users, Elefante raised a concern about a speculative service for which no radiofrequency allocation, service rules or network exists.²⁰ Specifically, Elefante voiced concerns about “the potential for interference from [Audacy’s] MEO Relay-to-User ‘downlinks’ to its planned stratospheric platforms.”²¹ Given that speculative services are not entitled to protection, however, the Commission determined that “retaining a ‘placeholder’ allocation [for aerial platform] services is not the appropriate approach...” and “declined to place conditions on Audacy’s authorization in response to [Elefante’s] concerns.”²²

Thus, taken together, the concerns voiced with respect to Iridium’s operations were mooted and it was determined that Elefante’s speculative operations in the band were not ripe for consideration. Hence, Elefante’s concerns with respect to the 22.55-23.55 GHz band have been fully considered and rejected by the Commission and should not be revisited pursuant to Section 1.106(p)(1).

Moreover, even if issues regarding the 22.55-23.55 GHz band had not been adequately addressed in the Audacy Grant Order – which they were – it is unclear how Elefante can credibly

¹⁸ See Audacy Corporation Application for Authority to Launch and Operate a Non-Geostationary Medium Earth Orbit Satellite System in the Fixed- and Inter-Satellite Services, IB File No. SAT-LOA-20161115-00117, Petition to Deny of Iridium Constellation LLC (filed June 26, 2017).

¹⁹ See Audacy Grant Order at 2, n. 6.

²⁰ See Elefante Comments. In fact, Elefante has not even sought permission to undertake experimental testing in the 23 GHz band.

²¹ *Id.* at 11.

²² Audacy Grant Order at 17, ¶ 26.

argue that its concerns “have not in any meaningful way been relieved at all,”²³ given that Elefante itself now claims that it could “operate compatibly”²⁴ with Audacy’s Network in the 22.55-23.55 GHz band and provides a compatibility assessment evaluating interference using “worst-case operational and geometric assumptions,” concluding such events would be “unlikely and transient.”²⁵

B. The Commission Should Disregard Elefante’s Dispute of the Term “Placeholder Allocation” to Describe Its Speculative Proposed Service

Elefante contends that the Audacy Grant “Order implies that Elefante Group sought a ‘placeholder’ allocation for stratospheric platform services in the 23 GHz Band, citing to the *NGSO FSS Report and Order*,”²⁶ and argues that this situation is not analogous “because the co-primary fixed allocation in the 23 GHz Band was unaffected by the *Order*.”²⁷ The Commission should disregard this red herring argument. It is clear that in both the *NGSO FSS Report and Order* and the Audacy Grant Order, the Commission intends the term “placeholder” allocations to mean reserving spectrum and priority for aerial platform services for which there are currently no service rules, such as the speculative balloon-based operations that Elefante is proposing.²⁸

C. The Commission Fully Considered, and Declined to Adopt, An Interference Protection Criterion

Elefante unjustifiably complains that the Audacy Grant “Order failed to acknowledge, let

²³ Request & Petition at 6.

²⁴ Elefante PFR at 64.

²⁵ Elefante PFR, App’x D. In its comments in response to Elefante’s Petition for Rulemaking, Audacy further discusses consider the potential of its proposed system to cause harmful interference into omnidirectional LEO satellites in the ISS service. *See Petition to Modify Parts 2 and 101 of the Commission’s Rules to Enable Timely Deployment of Fixed Stratospheric-Based Communications Services in the 21.5-23.6, 25.25-27.5, 71-76, and 81-86 GHz Bands*, RM-11809, Comments of Audacy Corporation at 9 (filed July 11, 2018).

²⁶ Request & Petition at 7 (internal citation omitted).

²⁷ *Id.*

²⁸ *NGSO FSS Report and Order*, 32 FCC Rcd 7809, para. 31, n. 72 (2017); Audacy Grant Order at 17, ¶ 36.

alone address, Elefante Group’s alternative argument regarding adoption of an [interference protection criterion (“IPC”)],” referencing its May 16, 2018 letter to the Commission, which Elefante proposed only one day before the Commission released the draft order granting Audacy’s Network.²⁹ Elefante suggests that, in the alternative to its request for clarification, the Commission impose the interference protection criterion (“IPC”) from Recommendation ITU-R SA.1155 on Audacy’s Relay Network with respect to the 22.55-23.55 GHz band.³⁰ The Commission need not and should not address Elefante’s new proposal on reconsideration. Recommendation ITU-R SA.1155 applies to interference metrics between relay satellites and other satellite networks, or, in the alternative, to interference metrics between relay satellites and terrestrial-based radios.³¹ The record with respect to Audacy’s Relay Network evidences no open concerns of interference with respect to either satellites or terrestrial radios in the 22.55-23.55 GHz band, and Elefante proposes a HAPS system of stratospheric balloons, for which Recommendation ITU-R SA.1155 does not apply.

Citing to Elefante’s May 16 and May 31 Letters which requested adoption of protection criterion “as a *condition* on any ISS license grant to Audacy (and its customers),”³² the Commission explicitly stated the it would “decline to place conditions on Audacy’s authorization in response to [Elefante’s] concerns, while noting that Audacy will be bound by the outcome of any future Commission rulemaking regarding operations in these bands.”³³ Moreover, the

²⁹ Request & Petition at 7-9 (citing May 16 Ex Parte Letter). We also note that Elefante initially stated that that “[t]he Order *did* accept Elefante Group’s argument that the User Satellites should not receive any interference protection from fixed service operations,” but subsequently, just prior to the filing deadline for oppositions and comments, corrected its filing to reflect that the Commission, in fact, declined such request.

³⁰ See Request & Petition at 8.

³¹ See Recommendation ITU-R SA.1155(c).

³² *Audacy Corporation Application for Authority to Launch and Operate a Non-Geostationary Medium Earth Orbit Satellite System in the Fixed- and Inter-Satellite Services*, IB File No. SAT-LOA-20161115-00117, Elefante Group, Inc. Ex Parte Letter at 1 (filed May 31, 2018) (emphasis added).

³³ Audacy Grant Order at 17, ¶ 36.

Commission stated, “We specifically decline Elefante’s request that we confirm that Audacy’s third-party customer User Satellites must operate without protection from fixed services,”³⁴ emphasizing that “requiring ISS operations to operate without protection would be inconsistent with that co-primary allocation.”³⁵

Adoption of an IPC or any other conditions to address hypothetical interference with a service for which service rules do not yet exist, and to address interference events that Elefante claims would be “unlikely and transient,”³⁶ is premature and would unnecessarily condition and constrain Audacy’s services at this juncture.

III. CONCLUSION

The Commission properly evaluated Elefante’s arguments in the course of its consideration of Audacy’s Application and the Request & Petition should be denied. As discussed in Audacy’s response to Elefante’s petition for rulemaking, Elefante’s instant proposal is highly speculative – it does not appear to have a prototype airship that has been tested for “air worthiness, station keeping, and helium retention for long duration missions,”³⁷ it does not propose particular frequencies for cross-links;³⁸ and proposes a tight timeframe between prototype testing in late 2021 and deployment of “operational flights and commercial communications” as soon as 2022.³⁹ No reasonable justification has been provided for reopening issues that have been properly disposed of.

The Commission will further consider issues related to service rules for Elefante’s

³⁴ Audacy Grant Order Order at 17, n. 129.

³⁵ *Id.*

³⁶ Elefante PFR, App’x D.

³⁷ Elefante PFR at 20.

³⁸ *Id.*

³⁹ *Id.* at 21.

proposed services in the proceeding considering its petition for rulemaking, which has received little support to date.⁴⁰ Should the Commission ultimately determine that adopting service rules for HAPs operations in the 22.55-23.55 GHz band has any merit, based on a fully established record with input from industry stakeholders, as noted in the Audacy Grant Order, “Audacy will be bound by the outcome of any future Commission rulemaking regarding operations in these bands.”⁴¹

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Dated: July 19, 2018

⁴⁰ See RM-11809.

⁴¹ Audacy Grant Order at 17, ¶ 36.

CERTIFICATE OF SERVICE

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