

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

In the Matter of	)	
	)	
Petition to Modify Parts 2 and 101 of the	)	
Commission's Rules to Enable Timely	)	RM-11809
Deployment of Fixed Stratospheric-Based	)	
Communications Services in the 21.5-23.6,	)	
25.25-27.5, 71-76, and 81-86 GHz Bands	)	

**COMMENTS OF SES AMERICOM, INC. AND O3B LIMITED**

SES Americom, Inc. and its affiliate O3b Limited (collectively, “SES”) respectfully submit these comments regarding the above-captioned Elefante Group Inc. (“Elefante”) Petition for Rulemaking (“Petition”), which asks the Commission to commence a proceeding to explore the possibility of allowing new Stratospheric-Based Communications Services (“SBCS”) in the 21.5-23.6 GHz, 25.25-27.5 GHz, 71-76 GHz, and 81-86 GHz Bands.<sup>1</sup> As one of the world’s largest commercial communications satellite operators, SES operates in many frequency bands across the United States and around the globe, and continues to introduce commercial deployment in greenfield frequency bands.<sup>2</sup> SES does not object to Elefante’s Petition but urges the Commission to fully consider and protect the ability of satellites to operate in the 71-76 GHz and 81-86 GHz bands (collectively the “70/80 GHz bands”) in any rulemaking proceeding initiated in response to the Elefante Petition.

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<sup>1</sup> Petition for Rulemaking of Elefante Group, Inc., RM-11809 (May 31, 2018) (“Petition”); Public Notice, *Consumer & Governmental Affairs Bureau Reference Information Center Petition for Rulemakings Filed*, Report No. 3093 (rel. June 11, 2018).

<sup>2</sup> See e.g., O3b Limited, File No. SAT-AMD-20170301-00026, Call Sign S2935 (filed Mar. 1, 2017); granted, *O3b Limited*, Order and Declaratory Ruling, FCC 18-70 (rel. June 6, 2018).

**I. THE COMMISSION MUST ENSURE THAT ANY SBCS NETWORKS ARE COMPATIBLE WITH FUTURE SATELLITE OPERATIONS IN THE 70/80 GHz BANDS**

Elefante’s petition for rulemaking seeks access to the 70/80 GHz bands, which are currently allocated for Fixed Satellite Service (“FSS”).<sup>3</sup> If the Commission initiates a rulemaking at Elefante’s request, the regulatory framework developed must be consistent with the Commission’s longstanding vision for these bands, which contemplates sharing between FSS and Fixed Service (“FS”) systems, including SBCS.

Indeed, the Commission has previously emphasized that all FS licensees in the 70/80 GHz bands should be aware that future FSS space and earth stations could be permitted in these bands and that FS licenses may be subject to any subsequently imposed technical standards to facilitate sharing between terrestrial and satellite services.<sup>4</sup> In its Petition, Elefante demonstrates its ability to share with a number of services in the 70/80 GHz bands but is silent on the matter of sharing the spectrum with FSS operations.<sup>5</sup> Further, Elefante mischaracterizes the status of satellite in the bands, stating that the Commission recently evaluated whether to authorize satellite use of the 70/80 GHz bands and “declined to move in the direction” of doing so.<sup>6</sup> In fact, the cited Commission decision only addressed possible terrestrial mobile operations in the 70/80 GHz bands but did not consider any change to the existing satellite allocation.<sup>7</sup>

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<sup>3</sup> 47 C.F.R. 2.106.

<sup>4</sup> *Allocations and Service Rules for the 71-76 GHz, 81-86 GHz and 92-95 GHz Bands*, WT Docket No. 02-146, Report and Order, 18 FCC Rcd 23318 (2003) (“70/80/90 GHz Order”) at 23344, ¶ 63.

<sup>5</sup> See Petition at 82.

<sup>6</sup> *Id.* at 82 & n.113, citing *Use of Spectrum Bands above 24 GHz for Mobile Radio Services*, GN Docket No. 14-177 *et al.*, Second Report and Order, Second Further Notice of Proposed Rulemaking, Order on Reconsideration, and Memorandum Opinion and Order, FCC 17-152 (rel. Nov. 22, 2017) (“Spectrum Frontiers Second Report & Order”), ¶¶ 197-201.

<sup>7</sup> See Spectrum Frontiers Second Report & Order at ¶ 200 (“We decline to authorize *mobile* use in the 70 GHz and 80 GHz bands under UMFUS rules at this time.”) (emphasis added).

The Commission has made clear that it anticipates authorizing FSS operations in the 70/80 GHz bands and that all FS licensees in the bands will be expected to comply with any sharing rules between FS and FSS that may be imposed at a later date.<sup>8</sup> Notably, an FSS applicant has requested Commission authority in the 70/80 GHz bands, demonstrating that the satellite industry takes the Commission's longstanding position seriously and has begun to develop technologies that can operate in this spectrum.<sup>9</sup> Elefante inexplicably fails to even mention this pending satellite filing, which was submitted to the Commission several months before the Elefante petition. This omission seriously undermines Elefante's claim that its planned network can co-exist with allocated services in the 70/80 GHz spectrum, particularly in light of Elefante's statement that it ruled out a number of band segments with FSS allocations because they posed "extremely complicated compatibility requirements."<sup>10</sup>

The Commission cannot rely on Elefante's incomplete analysis of sharing matters. Instead, before determining whether to commence a rulemaking to explore possible stratospheric systems in the 70/80 GHz bands, the Commission must require Elefante to demonstrate how its proposed network could successfully co-exist with FSS operations.

## **II. THE COMMISSION SHOULD DEVELOP NEW PART 101 RULES TO ADDRESS SHARING BETWEEN SBCS SYSTEMS AND FSS**

Any rulemaking proceeding pursuant to Elefante's Petition must also consider how to revise the spectrum sharing rules in Part 101 designed for traditional FS systems in order to reflect the characteristics of proposed SBCS operations.

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<sup>8</sup> 70/80/90 GHz Order, 18 FCC Rcd at 23344, ¶ 63 ("(Once the Commission considers and adopts technical standards for terrestrial and satellite operations to share [the 70/80 GHz] spectrum, all licensees will be expected to satisfy these and any other Part 101 requirements.").

<sup>9</sup> See *WorldVu Satellites Limited*, File No. SAT-AMD-20180104-00004, Call Sign S2994.

<sup>10</sup> Petition at 61.

Elefante asserts that in the 70/80 GHz spectrum its system should be “licensed and coordinated largely in the same manner as ground-based fixed links are licensed and coordinated in the band today under the existing Part 101 rules.”<sup>11</sup> But the current rules were developed for traditional FS systems, or more specifically, FS systems operating entirely on the ground. Elefante’s system, with a proposed operating altitude of approximately 65,000 feet, presents starkly different considerations when it comes to developing sharing rules with FSS operations.

Thus, in their present form, the Part 101 rules are not sufficient to address sharing between SBCS systems and FSS operations. The Commission should develop sharing rules particular to stratospheric systems like Elefante’s to ensure that future FSS deployments are adequately protected if SBCS systems are introduced in the 70/80 GHz bands.

### **III. CONCLUSION**

Before deciding whether to commence a rulemaking in response to the Petition, the Commission must require Elefante to demonstrate that SBCS systems are compatible with FSS use of the 70/80 GHz bands, and any such rulemaking must adopt SBCS-specific sharing rules that sufficiently safeguard FSS networks.

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Respectfully submitted,  
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<sup>11</sup> Petition at 81.

## **CERTIFICATE OF SERVICE**

I hereby certify that on this 11th day of July, 2018, I caused a true copy of the foregoing “Comments of SES Americom, Inc. and O3b Limited” to be sent by first class mail, postage prepaid, to the following:

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