

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

In the Matter of)	
)	
Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters)	IB Docket No. 16-408
)	

REPLY COMMENTS OF SES S.A. AND O3B LIMITED

SES S.A. (“SES”) and its subsidiary O3b Limited (“O3b,” and with SES “the Companies”) submit these Reply Comments in response to the Commission’s proposals in the Further Notice of Proposed Rulemaking (“FNPRM”)¹ in the above-captioned proceeding. The Companies urge the Commission to adopt its proposal to remove the current domestic coverage requirement for non-geostationary (“NGSO”) satellite constellation applications. The Commission’s objective in adopting the rule was to help ensure service to users throughout the United States,² but the record demonstrates that maintaining the rule is not needed to achieve that goal. A variety of NGSO systems that are authorized or pending in the Ku/Ka-band and V-band processing rounds are designed to meet a range of service requirements, including some that will provide ubiquitous coverage and others that will supply more targeted capacity to underserved areas. By modifying its rules, the Commission will facilitate the deployment of innovative NGSO systems that serve a variety of customer requirements without a restrictive coverage requirement or the uncertainty that accompanies a waiver request.

¹ *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 7809 (2017) (“FNPRM”).

² *Amendment of the Commission’s Rules to Establish Rules & Policies Pertaining to A Mobile Satellite Serv. in the 1610-1626.5/2483.5-2500 MHz Frequency Bands*, CC Docket 92-166, ¶ 24 (1994).

The record reflects strong support for the Commission’s proposal to remove the domestic coverage requirement, which will enhance each NGSO applicant’s ability to tailor its system design to meet service demand. As the SES/O3b Comments observe, “removing the domestic coverage requirement will allow prospective operators to develop and deploy flexible and novel NGSO systems reflecting a variety of business cases and usage scenarios without being unduly limited by regulatory constraints.”³

Other commenters agree. SpaceX expresses concern that retaining the domestic coverage requirement could stifle innovation and notes that the two NGSO systems the Commission addresses in the FNPRM – the operating O3b network and the Arctic system proposed by Space Norway – have complementary coverage areas, each able to serve parts of the U.S. that the other system cannot.⁴ Space Norway correctly points out that “regional” NGSOs tend to be relatively simple and can be used to meet demands of specific geographic regions as they arise.⁵ Boeing emphasizes that the different orbital configurations that are feasible absent a requirement to cover a defined geographic area will allow operators to bring more capacity to areas where there is demand for it.⁶

The Commission should not retain policies that would discourage the future development and deployment of systems like the ones discussed in the FNPRM.⁷ As SpaceX notes, the

³ Comments of SES S.A. and O3b Limited, IB Dkt No. 16-408, filed Jan. 2, 2018 (the “SES/O3b Comments”) at 3.

⁴ Comments of Space Exploration Technologies Corp., IB Dkt No. 16-408, filed Jan. 2, 2018 (the “SpaceX Comments”) at 3.

⁵ Comments of Space Norway, IB Dkt No. 16-408, filed Jan. 2, 2018 (the “Space Norway Comments”) at 3.

⁶ Comments of The Boeing Company, IB Dkt No. 16-408, filed Jan. 2, 2018 (the “Boeing Comments”) at 3.

⁷ FNPRM at ¶ 75.

deployment of multiple “regional” NGSO systems will result in total or near-total coverage of the U.S.,⁸ and a similar symbiosis may occur with future designs as well. The simplicity of regional systems, combined with the flexibility they afford to deploy data capacity where it is most needed is a valuable benefit for the public good. The Commission must not keep rules in place that create potential roadblocks for the development of these systems, particularly now that it has authorized systems that will provide total domestic coverage.

For these reasons, the Commission should reject the arguments put forth by WorldVu Satellites Limited, d/b/a OneWeb, Intelsat Corporation, and Hughes Network Systems, LLC (the “Satellite Operators”) for retaining the domestic coverage requirement. As the Satellite Operators acknowledge, there are several pending applications for NGSO constellations that promise to deliver coverage throughout the U.S.⁹ Additionally, as highlighted by the Commission,¹⁰ other NGSO networks with more regionalized coverage areas will also provide coverage throughout the U.S.

With several NGSO systems poised to offer ubiquitous domestic coverage, the Commission has no compelling policy reason to retain the requirement and continue to constrain system designs for future NGSO applicants.

While the Satellite Operators argue that the Commission can waive the domestic coverage requirement on a case-by-case basis as needed, this would create needless uncertainty

⁸ SpaceX Comments at 3.

⁹ See Comments of WorldVu Satellites Limited, d/b/a OneWeb, Intelsat Corporation, and Hughes Network Systems, LLC, IB Dkt No. 16-408, filed Jan. 2, 2018 at 3-4, n. 11.

¹⁰ FNPRM at ¶ 75.

for applicants,¹¹ particularly in the context of future processing rounds. With the coverage requirement in place, potential applicants will have to weigh whether it is worth the risk to pursue a design that does not meet the requirement. This could have the effect of stifling innovation and investment in future NGSO systems that do not meet the coverage requirement, but which nevertheless provide valuable services to significant portions of U.S. territory.

SES and O3b agree with the observations made by the State of Alaska regarding the importance of satellite coverage in Alaska, which is isolated geographically.¹² However, the facts do not support the assumption that maintaining the domestic coverage requirement is necessary to facilitate expanded coverage of Alaska via NGSO systems. Notably, one system already authorized by the Commission has been designed to “help bridge the gap in broadband technology and accessibility that currently exists in the Arctic region, including Alaska.”¹³ Yet that system was authorized pursuant to a waiver of the domestic coverage requirement, as it cannot provide service to all fifty states, Puerto Rico and the U.S. Virgin Islands.¹⁴

Moreover, multiple systems on file in the Commission’s processing rounds propose coverage that fully meets the domestic coverage requirement;¹⁵ two such systems have already been authorized in the pending processing rounds.¹⁶ This is a clear demonstration that Alaska

¹¹ See Reply Comments of ViaSat, Inc., IB Dkt No. 16-408, Notice of Proposed Rulemaking, filed Apr. 10, 2017 at 29-31 (arguing that waivers of this requirement grant unfair advantages to applicants whose systems comply with the rules).

¹² Comments of the State of Alaska, IB Dkt No. 16-408, filed Jan. 2, 2018 (the “Comments of Alaska”) at 1.

¹³ Space Norway Comments at 2.

¹⁴ *Id.*

¹⁵ See the Telesat Petition; the Boeing Application; the LeoSat Petition; the Karousel Petition; the ViaSat Petition.

¹⁶ Petition for a Declaratory Ruling Granting Access to the U.S. Market for the OneWeb NGSO FSS System, Order and Declaratory Ruling, IBFS File No. SAT-LOI-20160428-00041 (June 23,

will be covered by NGSO constellations in the future and that the coverage requirement is not necessary to encourage satellite operators to cover Alaska.

The State of Alaska is precisely the kind of region that the Commission hoped would benefit from the existing domestic coverage requirement, and now it is on the verge of receiving that benefit. The Commission should revise its regulations to allow the satellite industry to develop new NGSO systems that will deliver cutting edge services to U.S. customers, either throughout the U.S. or to meet regionalized demand, unfettered by the domestic coverage requirement.

2017); Petition for Declaratory Ruling to Grant Access to the U.S. Market for Telesat's NGSO Constellation, Order and Declaratory Ruling, IBFS File No. SAT-PDR-20161115-00108 (Nov. 3, 2017).

Retaining the domestic coverage is unnecessary and would be counter-productive. The satellite industry is poised to fulfill the Commission's longstanding policy goal to facilitate NGSO coverage of the entire U.S., and allowing a range of systems whose coverage is tailored to meet specific customer demand is consistent with that goal. By eliminating the domestic coverage requirement, the Commission will encourage continued innovation and greater deployment of high-capacity satellite services.

Respectfully submitted,

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