## Before the **FEDERAL COMMUNICATIONS COMMISSION**

Washington, DC 20554

In the Matter of	)
Mangata Networks LLC	) IBFS File No. SAT-PDR-20200526-00054
Petition for Declaratory Ruling for U.S.	) Call Sign S3068
Market Access for NGSO System Operating in the Ka- and V-bands	)

## COMMENTS OF THE BOEING COMPANY

The Boeing Company ("Boeing"), through its counsel and pursuant to Section 25.154 of the Commission's rules, provides these comments on the petition for declaratory ruling ("Petition") of Mangata Networks LLC ("Mangata") seeking U.S. market access for its non-geostationary satellite orbit ("NGSO") system operating in the Ka- and V-bands.<sup>1</sup>

Boeing does not object to the grant of Mangata's Petition. Boeing recommends, however, that the Commission initiate a new processing round for NGSO systems that would operate in portions of the V-band.<sup>2</sup> The use of an additional processing round would help to protect the reasonable expectations of existing NGSO system applicants and avoid confusion regarding the spectrum sharing structure applicable to more recent applicants that have sought new or

<sup>&</sup>lt;sup>1</sup> Boeing is an applicant for authority to launch and operate an NGSO satellite system that would operate using V-band frequencies. *See* The Boeing Company, Application for Authority to Launch and Operate a Non-Geostationary Satellite Orbit System in the Fixed Satellite Service, IBFS File Nos. SAT-LOA-20170301-00028, SAT-AMD-20170929-00137 and SAT-AMD-20180131-00013 (call sign S2993) (March 1, 2017). Therefore, Boeing is directly affected by Mangata's application.

<sup>&</sup>lt;sup>2</sup> For purposes of these comments, Boeing refers to the V-band as including the 37.5-42.0 GHz (space-to-Earth) and the 47.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) frequency bands.

significantly modified authority to use the V-band to provide broadband communications services in the United States.

As the Commission is aware, in response to a cut-off deadline of March 1, 2017,<sup>3</sup> eight companies filed applications to launch and operate NGSO satellite systems that would operating using V-band frequencies.<sup>4</sup> More than three years later, additional parties have recognized the significant opportunities presented by V-band spectrum to make very high density and low latency broadband communications services available to all Americans and have requested Commission authority to operate NGSO systems using this spectrum.<sup>5</sup> Mangata is one of these recent applicants, requesting U.S. market access for a constellation of 791 medium Earth orbit ("MEO") satellites operating in both the Ka- and the V-band.<sup>6</sup> The Commission placed Mangata's Petition

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<sup>&</sup>lt;sup>3</sup> See Satellite Policy Branch Information, Boeing Application Accepted for Filing in Part, IBFS File No. SAT-LOA-20160622-00058, Cut-Off Established for Additional NGSO-Like Satellite Applications or Petitions for Operations in the 37.5-40.0 GHz, 40.0-42.0 GHz, 47.2-50.2 GHz and 50.4-51.4 GHz Bands, DA 16-1244, at 3 (Nov. 1, 2016).

<sup>&</sup>lt;sup>4</sup> NGSO applications were filed by Boeing, O3b, Theia Holdings A, Inc., Audacy Corporation, Space Exploration Holdings, LLC, WorldVu Satellites Limited, Telesat Canada, and Viasat, Inc.

<sup>&</sup>lt;sup>5</sup> For example, AST&Science LLC ("AST") filed an application on April 13, 2020 seeking U.S. market access to launch and operate a NGSO constellation of 243 low Earth orbit ("LEO") satellites that would operate in various frequency bands, including the V-band. *See* AST & Science, LLC, Petition for Declaratory Ruling, IBFS File Nos. SAT-PDR-20200413-00034 and SAT-APL-20200727-00088 (call sign S3065) (April 13, 2020). In addition, on May 26, 2020, Viasat, Inc. filed an application seeking to substantially modify its previously authorized NGSO constellation, increasing the number of satellites from 20 to 288, reducing the altitude from a MEO altitude of 8,200 kilometers to a low Earth orbit ("LEO") of 1,300 kilometers and further concentrating its satellites through a reduction in inclination from 87° to 45° latitude. *See* Viasat, Inc., Modification to Authorization, IBFS File No. SAT-MPL-20200526-00056 (call sign S2985) (May 26, 2020).

<sup>&</sup>lt;sup>6</sup> See Mangata Networks LLC, Petition for Declaratory Ruling, IBFS File No. SAT-PDR-20200526-00054 (call sign S3068) (May 26, 2020).

on public notice for comment on August 7, 2020.<sup>7</sup> The public notice, however, did not indicate whether Mangata's application was being treated as a "lead application" and whether its public notice had initiated a new processing round for NGSO systems operating in the V-band, as required by Section 25.157(c)(2) of the Commission's rules.<sup>8</sup>

Given the significant number of new and significantly modified NGSO system applications that are now pending before the Commission, a new processing round should be initiated to distinguish the spectrum sharing regime that exists between the previous round of NGSO systems and these subsequent filings. As the Commission has explained, the purpose of its application processing rounds is to "establish a sharing environment among NGSO systems, to provide a measure of certainty in lieu of adopting an open-ended requirement to accommodate all future applicants." The recent wave of new applications materially alters the "establish(ed) sharing environment among NGSO systems" that was bounded by the March 2017 cut-off deadline. The Commission should therefore create a new processing round in which the sharing status of applicants is deferred "considering both the need to protect existing expectations and investments

<sup>&</sup>lt;sup>7</sup> See Satellite Policy Branch Information, Space Station Applications Accepted for Filing, Rep. No. SAT-01487 (Aug. 7, 2020).

<sup>&</sup>lt;sup>8</sup> 47 C.F.R. § 25.157(c)(2) (explaining that "[1]ead applications that are acceptable for filing will be placed on public notice. This public notice will initiate a processing round, establish a cut-off date for competing NGSO-like satellite system applications, and provide interested parties an opportunity to file pleadings in response to the application pursuant to §25.154").

<sup>&</sup>lt;sup>9</sup> Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters, IB Docket No. 16-408, *Report and Order and Further Notice of Proposed Rulemaking*, FCC 17-122, ¶ 61 (Sept. 27, 2017).

<sup>&</sup>lt;sup>10</sup> *Id*.

and provide for additional entry as well as any comments filed by incumbent operators and reasoning presented by the new applicant."<sup>11</sup>

In raising this issue, Boeing acknowledges that it is too soon to determine the appropriate spectrum sharing status of NGSO system applications processed in a subsequent processing round. None of the eight applicants that participated in the 2017 processing round have yet launched their V-band systems and thus we do not yet know how many will be launched and whether the V-band will be able to accommodate additional NGSO constellations. Nevertheless, to avoid confusion and to protect the reasonable expectations of existing applicants, the Commission should establish a new processing round for the additional applications that have been filed.

Respectfully submitted,

THE BOEING COMPANY

Bv:

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September 8, 2020

<sup>11</sup> *Id*.

## **CERTIFICATE OF SERVICE**

I, Bruce A. Olcott, hereby certify that on September 8, 2020, I caused a copy of the foregoing Comments of The Boeing Company to be served by U.S. first-class mail, postage paid, upon the following:

Brian Holz CEO Mangata Networks LLC 8736 East Quartz Mountain Dr. Gold Canyon, AZ 85118

Bruce A. Olcott