Before the FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of)
Viasat, Inc.)) IBFS File No. SAT-MOD-20190617-00047
Application to Modify Market Access) Call Sign S2917
Grant and for Extension or Waiver of Milestone Date)

REPLY OF IRIDIUM CONSTELLATION LLC

On September 9, 2019, Iridium Constellation LLC ("Iridium") filed Comments and a Petition to Hold in Abeyance (the "Petition") with respect to a portion of the above-referenced Application to Modify Market Access Grant (the "Application"), filed by Viasat, Inc. ("Viasat"). On September 24, 2019, Viasat filed a Consolidated Response and Opposition ("Opposition") that addressed Iridium's filing and filings submitted by other parties. Pursuant to Section 25.154 of the Commission's rules, Iridium hereby replies to Viasat's Opposition.

As discussed in Iridium's Petition, Iridium's feeder links operate in two of the frequency bands, 29.1-29.25 GHz and 19.4-19.6 GHz, that are covered by Viasat's Application. Because Viasat proposes to use these bands on a non-conforming basis, it must demonstrate it will not cause unacceptable interference to Iridium's feeder links. Iridium has challenged the sufficiency of Viasat's showing concerning these bands.

29.1-29.25 GHz band. There no longer is a disagreement as to the 29.1-29.25 GHz band. In its Application, Viasat had claimed there was an "analysis" in its technical annex that "demonstrated" Viasat's satellite at 89° W.L. "will not cause harmful interference into Iridium's NGSO MSS feeder link operations" in the 29.1-29.25 GHz band.¹ But as stated in Iridium's Petition, there is no such analysis.

Iridium had requested, therefore, that the Commission reserve judgment on interference issues in this uplink band, including issues concerning the differences between gateway earth stations and user terminals and the potential for cumulative interference, until Viasat applies for earth station licenses in the band and makes an appropriate showing.² Viasat now agrees with this approach.³

19.4-19.6 GHz band. The 19.4-19.6 GHz band, on the other hand, remains an issue. That is a downlink band, and non-conforming use transmissions from Viasat's satellite at 89° W.L. must not cause unacceptable interference to Iridium's feeder links.

Viasat acknowledges in its Application that it must attempt to address this interference issue on an operator-to-operator basis.⁴ But Viasat proposes it be permitted to operate in the interim so long as it maintains "a suitable separation distance for co-

¹ Application Narrative at 23.

² See Iridium Petition at 3.

³ See Viasat Opposition at 8.

⁴ Application Narrative at 23-24. Iridium is refraining from referring to these operator-to-operator discussions as "coordination," since it is uncertain whether that is an appropriate term when one of the operators is proposing a non-conforming use.

frequency, co-polar operations in the vicinity of Iridium's U.S. feeder link stations."⁵

There are two problems with Viasat's interim proposal, each of which is fatal.

First, until Viasat has exchanged technical information with Iridium operator-tooperator, it has no basis for determining what separation distance would be "suitable." Viasat has no knowledge of Iridium's protection criteria and should not be permitted to make unilateral judgments.

Viasat's Opposition perpetuates this unilateral approach. Viasat contends it can avoid interference in the 19.4-19.6 GHz band by employing beam boresights with "appropriate parameters" that will maintain "suitable separation from Iridium's gateways." Once again, Viasat cannot know what is "appropriate" or "suitable" for purposes of avoiding interference to Iridium until it has exchanged technical information operator-to-operator.

Second, Viasat compounds its error of acting unilaterally by limiting its analysis to a single Iridium gateway. In fact, there are multiple gateway earth stations in the United States that communicate with the Iridium system in the 19.4-19.6 GHz band.

⁵ Application Narrative at 23-24.

⁶ Viasat Opposition at 9.

Iridium's Petition identified this defect in Viasat's analysis.⁷ Rather than correcting its error, Viasat doubled down, claiming that Iridium should have identified the locations of its gateways and their call signs.⁸

Viasat has it backwards. As the proponent of a non-conforming use, Viasat must protect all of the U.S. gateways that communicate with Iridium's system, the locations of which are readily ascertainable in IBFS. Iridium is not required to do Viasat's work for it.

Viasat's approach suggests it does not take seriously its responsibility to avoid interference. That is disturbing. And the holes in Viasat's analysis, which excludes most of the pertinent earth stations, underscore the need for an exchange of technical information between the operators rather than a unilateral determination by Viasat.

⁷ See Iridium Petition at 5.

⁸ Viasat Opposition at 9.

CONCLUSION

In view of the forgoing and Iridium's Petition:

- As Iridium and Viasat now agree, the Commission should reserve judgment on issues in the 29.1-29.25 GHz band, including the differences between gateway earth stations and user terminals and the potential for cumulative interference, until Viasat applies for earth station licenses and makes an appropriate showing.
- The Commission should not act on Viasat's request to use the 19.4-19.6 GHz band on a non-conforming basis unless and until operator-to-operator discussions between Iridium and Viasat have been successfully completed.

Respectfully submitted,

IRIDIUM CONSTELLATION LLC

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October 4, 2019

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Reply of Iridium Constellation LLC were sent by email, this 4th day of October, 2019, to:

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