

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

In the Matter of)
)
Hughes Network Systems, LLC) File No. SAT-LOI-20111220-00242
)
Letter of Intent Seeking Access to U.S.)
Market Using a Planned Ka/V-band)
Geostationary-Satellite Orbit Space)
Station)
)

COMMENTS OF IRIDIUM SATELLITE LLC

In the above-captioned application, Hughes Network Systems, LLC (“HNS”) has requested a letter of intent authorization that would enable it to access the U.S. market via a geostationary satellite orbit (“GSO”) fixed satellite service (“FSS”) Ka/V-band space station, Jupiter 91W, to be located at 90.9° W.L. For reasons that are discussed below, and based on a clarification HNS provided in a related proceeding, Iridium has no objection to a grant of HNS’s Jupiter 91W application, so long as it is understood that:

(1) a grant has no bearing on the issue of whether HNS's earth station transmissions in the 29.25-29.3 GHz band will interfere with Iridium's operations;

(2) HNS will have to address this interference issue when it files for earth station authority; and

(3) any construction undertaken by HNS before the FCC considers this interference issue is at HNS's own risk.

Iridium also addresses in these comments certain statements HNS made previously concerning Iridium's interference showing in a related proceeding. Iridium demonstrates that HNS's statements are not responsive to the interference concerns Iridium has raised.

DISCUSSION

I. SUBJECT TO CERTAIN UNDERSTANDINGS, IRIDIUM DOES NOT OBJECT TO A GRANT OF HNS'S APPLICATION.

Iridium's feeder link earth stations and TT&C link earth stations transmit in the 29.25-29.3 GHz sub-band. HNS states that its gateway earth stations and user earth stations also will transmit in this sub-band. Iridium's earth stations and HNS's earth stations are co-primary in the sub-band.

The Commission's rules and policies require GSO FSS operators to demonstrate that their earth stations will not cause harmful interference to co-primary feeder link earth station operations.¹ HNS, therefore, must make this demonstration before it can be authorized to operate in the 29.25-29.3 GHz sub-band.

¹ See Sections 25.203(k), 25.258(a), and 25.278 of the Commission's rules. See also *Amendment of the*

HNS's application for Jupiter 91W gives the impression that HNS is attempting to address issues relating to both its uplink bands and its downlink bands. HNS requested authority in the application to operate on uplink and downlink frequencies.² In addition, HNS made an interference showing in the application relating to one of its uplink bands, at 28.6-29.1 GHz.³

In an Opposition filed in a pleading cycle involving HNS's Jupiter 97W application (the "Jupiter 97W Opposition"),⁴ however, HNS clarified that the issue of harmful interference in the 29.25-29.3 GHz sub-band was beyond the scope of its application. HNS stated that it intends to make a showing on this issue when it applies for 29.25-29.3 GHz earth station authority.

Iridium assumes HNS is taking the same approach in the case of Jupiter 91W. If that assumption is correct, then given HNS's prior clarification Iridium does not object to a grant of HNS's request for a letter of intent authorization for Jupiter 91W. In these circumstances, however, a grant of HNS's letter of intent application can have no bearing on the merits of a later-filed earth station application. HNS, when it seeks a license to operate earth stations in the 29.25-29.3 GHz band that will communicate with Jupiter 91W, will have to address the potential for the earth stations to interfere with Iridium's feeder links and TT&C links. If it is found that the earth stations would cause

Commission's Regulatory Policies to Allow Non-U.S. Licensed Satellites Providing Domestic and International Service in the United States, Report and Order, 12 FCC Rcd 24094, 24107-17(¶¶ 30-49) (1997).

² See FCC Form 312, response to question 24.

³ See HNS narrative, Attachment A, pp. 12-13, 15-22.

⁴ See HNS's Opposition to Petition to Dismiss, File No. SAT-LOI-20110809-00148 (Jan. 27, 2012).

harmful interference, then under the Commission's rules and policies HNS's earth station application should be denied. Any construction of the Jupiter 91W network that HNS engages in before this issue is brought before the Commission and resolved, therefore, is at HNS's own risk.

II. HNS's STATEMENTS CONCERNING INTERFERENCE POTENTIAL ARE NOT RESPONSIVE.

In its Jupiter 97W Opposition, HNS questioned whether the technical exhibit Iridium had filed in that proceeding, which made an initial assessment that HNS's earth stations would cause harmful interference, is correct. HNS claimed that harmful interference could be avoided by maintaining geographical separation between HNS's earth stations and Iridium's earth stations.⁵ In the case of HNS's user terminals, this separation would be maintained by creating exclusion zones for the frequencies shared by HNS and Iridium.⁶ In the case of HNS's gateway earth stations, the separation would be maintained by case-by-case earth station siting.⁷

The technical exhibit Iridium filed in the Jupiter 97W proceeding is applicable to Jupiter 91W, too, and Iridium assumes that HNS intends to rely on geographical separation in the case of Jupiter 91W, as it did with Jupiter 97W. Although Iridium supports the use of the proposed mitigation measures, the statements made by HNS were not responsive to Iridium's interference showing. Iridium demonstrated that HNS's earth stations could interfere with Iridium's satellite antenna side lobes even if

⁵ Jupiter 97W Opposition at 4.

⁶ *Id.*

⁷ *Id.*

geographical separation is employed. Whether such interference will occur is dependent on factors, such as the location and density of HNS's earth stations, as to which details have not been provided. Until these factors are taken into account, Iridium's interference concerns will remain both for Jupiter 97W and Jupiter 91W.

CONCLUSION

Provided that the conditions outlined in these comments are satisfied, Iridium does not object to a grant of HNS's request for a letter of intent authorization for Jupiter 91W. To date, however, HNS has not responded adequately to the interference concerns Iridium has raised. Before HNS may be authorized to operate earth stations that transmit in the 29.25-29.3 GHz sub-band and communicate with Jupiter 91W, HNS must demonstrate that the earth stations will not cause harmful interference to Iridium's uplink operations.

Respectfully submitted,

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March 26, 2012

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing COMMENTS OF IRIDIUM SATELLITE LLC was sent by hand delivery on this 26th day of March, 2012, to the following:

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*Sent electronically

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