VIA EMAIL

November 13, 2013

Mr. Marc Dupuis
Director General
Engineering, Planning, and Standards Branch
Industry Canada
235 Queen Street
Ottawa, ON K1A 0C8

Re: Consultation on Use of the Frequency Band 25.05-25.25 GHz, Canada Gazette, Part I, August 28, 2013, SMSE-007-13

Dear Mr. Dupuis:

1. EchoStar Satellite Operating Company and Hughes Network Systems Canada ULC (HNSC)—collectively, EchoStar®—hereby submit these comments in response to the Department’s Consultation on Use of the Frequency Band 25.05-25.25 GHz (SMSE-007-13). EchoStar welcomes the opportunity to submit comments on how to best clarify the use of the 25.05-25.25 GHz (25 GHz) band for sharing between the Fixed Satellite Service (FSS) and the Fixed Service (FS).

Background

2. EchoStar is a diverse, dynamic, technology company that is a significant satellite operator and services provider. Today EchoStar owns, leases, or operates a fleet of 22 satellites in the Broadcasting-Satellite Service (BSS), the Mobile-Satellite Service (MSS), and the FSS bands, which provide innovative multichannel video programming distribution through DISH® Network Corporation (DISH), state-of-the-art fixed and mobile broadband services, and other services. EchoStar is a leading satellite technology and services company that employs more than 2,000 engineers focused on creating hardware and service solutions for cable, telecommunications, IPTV, and satellite companies worldwide.
3. Hughes Network Systems, LLC (Hughes®), an EchoStar company and the parent of HNSC, is the global leader in providing broadband satellite networks and services for enterprises, governments, small businesses, and consumers. Having pioneered the Very Small Aperture Terminal (VSAT), Hughes is the world’s leading provider of enterprise VSAT services. It has built upon this expertise to bring high-speed satellite broadband service to consumers and small businesses across the United States, including through the recently launched EchoStar XVII satellite, a next-generation, Ka-band, high-throughput satellite that delivers high-speed Internet access to consumers, no matter where they live or work.

4. HNSC is a subsidiary of Hughes, which provides broadband, VSAT, and other managed satellite services in Canada, including through an Earth station authorization in the 25 GHz band that is utilized in conjunction with the Ciel 6i satellite located at 103° W longitude.

Discussion

5. EchoStar supports the Department’s proposal to align Canadian footnote C44 with US footnote NG16. It agrees footnote C44 should be broadened to include BSS feeder links and to support the feeder links of other space-based radio communications services, including FSS.

6. While EchoStar understands the Department’s current rules provide higher priority to FS than to FSS operations in the 25 GHz band, the company has concerns about the level of interference protection afforded to the fixed service. Under the Department’s current rules, the level of protection is unclear because the Department simply states FSS Earth stations “will not cause interference to any fixed service to be deployed in the authorized service area.” This ambiguity creates uncertainty for FSS operators in the band.

7. In order to increase operational certainty, EchoStar supports the Department’s proposal to insert the word “harmful” before the word “interference” in footnote C44. Harmful interference is a well-recognized standard used extensively in frequency sharing among services and, as the Department correctly points out, it is defined in the International Telecommunication Union’s (ITU’s) Radio Regulations. Further, EchoStar would support the addition of a provision that necessitates fixed satellite service implementation in the 25 GHz band be limited to applications that impose minimal constraints upon the deployment of fixed service systems, such as those using a small number of large aperture Earth station antennas.

8. EchoStar also supports the Department’s proposal to provide FS and FSS operators with the flexibility to engage in coordination with one another for operations in the 25 GHz band, in accordance with the coordination methodology proposed by the Department in SMSE-007-13. This methodology strikes an appropriate balance between the requirements of the FS on the one hand and the requirements of the FSS on the other.
9. In addition, in order to increase certainty in the coordination process, EchoStar submits the Department should establish a Power Flux Density (PFD) trigger of -114 dBW/m2 in 1 MHz as a coordination threshold for operational and earlier-licensed FS stations. Under this approach, the FSS would only have to coordinate with an existing or planned FS station if its PFD limit exceeded this coordination threshold. To this end, EchoStar submits the Department should adopt a requirement that new FS stations must take into account existing FSS operations in the band when deploying, in order to minimize interference between the services.

Conclusion

10. EchoStar appreciates the Department’s efforts to provide greater operational flexibility to FSS operators in the 25 GHz band and urges the Department to adopt the submissions and recommendations of EchoStar herein.

Yours very truly,

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