



June 21, 2022

BY ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street, N.E.
Washington, DC 20554

Re: *WT Docket No. 20-443; GN Docket No. 17-183*

Dear Ms. Dortch:

Upon even a cursory review of DISH’s and RS Access’s supposed “studies” relating to how much harm a new high-power mobile service would do to next-generation satellite broadband services in the 12 GHz band, it is clear that no reasonable engineer could believe they represent an honest interference analysis. SpaceX has now confirmed this conclusion with an analysis that corrects some of the most egregious assumptions in those “studies” and finds that people who depend on SpaceX ***would experience harmful interference in the 12 GHz band more than 77% of the time and be subjected to total outage of service 74% of the time***, rendering the band effectively unusable for satellite service to most Americans.

As such, SpaceX urges the Commission to investigate whether DISH and RS Access filed intentionally misleading reports. These reports simply cannot be squared with DISH’s own correct representations in December 2019 that “concurrent sharing of spectrum between co-primary 5G and NGSO FSS operations is not viable in the 12 GHz Band.”¹ These “studies” seem designed only to deceive the Commission into improperly granting them and other Multichannel Video and Data Distribution Service (“MVDDS”) licensees new spectrum rights, even knowing that such grants would harm Americans who depend on next-generation satellite broadband for work, school, medical services, and other critical needs.

Even RS Access’s Own Methodology Demonstrates Harm Once Enormously Unrealistic Inputs Are Corrected

In initiating this proceeding, the Commission put the burden on DISH, RS Access, and other MVDDS Licensees to provide “technical parameters that could allow additional terrestrial

¹ Letter from Alison Minea to Marlene H. Dortch, IBFS File No. SAT-MOD-20180319-00022 and Docket No. RM-11768, at 3 (Dec. 2, 2019).

use of the band without causing harmful interference to incumbent operators.”² In the 18 months since, the MVDDS Licensees have refused to provide such parameters. In contrast, the Commission put no such burden on providers of existing services in the band, instead recognizing the public benefits of those services. Nonetheless, SpaceX submits an extensive technical analysis showing that mobile services envisioned by DISH and RS Access would in fact cause massive disruptions to users of next-generation satellite services. Critically, SpaceX’s new study uses the same Monte Carlo methodology RS Access used for its technical submissions over the past year, only with corrections to some of the most egregious assumptions used by RS Access, such as ignoring standard Commission build out requirements and using unrealistic placement of SpaceX customers. To be sure, SpaceX’s assumptions are still overly-favorable to DISH and other MVDDS licensees. Yet even with these favorable assumptions, SpaceX customers could expect to experience harmful interference in the 12 GHz band the vast majority of the time, which would essentially preclude a consumer-oriented commercial satellite service in the band.

This analysis verifies what should be intuitive—that a high-power terrestrial network would blow out anyone using the high-sensitivity equipment satellite consumers must use to receive signals that comply with Commission and international power restrictions on satellite downlink transmissions. As a result, vastly fewer Americans could be connected using next-generation satellite services, and those that remain would experience degraded service and regular network outages. In other words, even a conservative analysis of a DISH and RS Access windfall shows that millions of Americans for whom next-generation satellite services offer the only option or the only competition will be denied service.

Allowing DISH to Hoard More Spectrum and RS Access to Attempt Another Flip Would Be Contrary to Commission Goals to Connect Americans

To be clear, even aside from their meritless technical claims, neither DISH nor RS Access can make a case that remotely justifies Commission complicity in their attempted spectrum arbitrage. As has been widely documented, DISH has never lived up to its repeated promises to deploy a new terrestrial network using the exclusive licenses already stored up in its warehouses—the Commission simply cannot gift more spectrum to any operator with this track record of broken promises and stranded consumers. For over a decade, DISH has promised and failed to timely deploy a network using its licenses in 700 MHz, AWS-4, AWS H Block, AWS-3, and 600 MHz.³ DISH claims to have finally met an initial milestone requiring limited terrestrial

² *Expanding Flexible Use of the 12.2-12.7 GHz Band*, 36 FCC Rcd. 606, ¶ 22 (2021) (“12 GHz NPRM”).

³ See Comments of Space Exploration Holdings, LLC, WT Docket No. 20-443 and GN Docket NO. 17-183, at 13-16 (May 7, 2021) (“SpaceX Comments”) (documenting DISH’s failure to develop spectrum assets).

deployment, but has not yet submitted any information to corroborate that claim.⁴ Even in the 12 GHz band, DISH has never met its deployment requirements for MVDDS licenses, which invalidates any semblance of a claim to rights in the band.⁵ Instead, DISH makes the extraordinary argument that its disregard for Commission rules somehow justifies the gift of even more rights at the expense of American consumers. But SpaceX is not aware of a single case where a licensee's failure to meet its deployment requirements was rewarded with even more rights, especially when those rights would come at the expense of those who depend on access to the spectrum.

Likewise, RS Access is backed by a known spectrum flipper who made hundreds of millions of dollars selling low-power television stations in the incentive auction without adding new services for anyone.⁶ In fact, RS Access appears to be nothing but a shell company consisting of no employees other than a single lobbyist. The Commission cannot expect any new services resulting from providing mobile rights to a front for a speculator.

Next-Generation Satellite Operators are Quickly Connecting Millions of Otherwise Unserved Americans in Every Corner of the Nation

In contrast to DISH and RS Access, next-generation satellite operators have spent billions of dollars actually deploying new services at an unprecedented pace, despite having no exclusive licenses. The 12 GHz band is now one of the most intensively used satellite bands, connecting thousands of satellites with millions of people who now can rely on high-speed broadband. These services have provided connections to those who need it most, including people on Tribal lands, people requiring telehealth, and students who need connections to close the homework gap.

Giving DISH and RS Access New Rights Would Contravene the Commission's Requirement That Such Rights Cannot Cause Harmful Interference to Americans that Depend on Next-Generation Satellite Systems

The Commission recognized "the public interest benefits that could flow from investments made to provide satellite broadband services" when it unanimously concluded it would act *only* if it could do so "without causing harmful interference" to next-generation

⁴ See, e.g., Alison Johnson, "Dish says it launched 5G service the day before it faces millions of dollars in fines," The Verge (June 14, 2022) ("It's still not entirely clear that DISH has met the requirements."), <https://www.theverge.com/2022/6/14/23167922/dish-network-5g-oran-project-genesis-120-cities-launch>.

⁵ See Letter from David Goldman to Marlene H. Dortch, WT Docket No. 20-443 and GN Docket No. 17-183; ULS File No. 0008735875 (June 1, 2022) (discussing DISH's failure to meet MVDDS deployment requirements).

⁶ See SpaceX Comments at 16-17.

satellite systems.⁷ Given the strong technical record when the Commission started this proceeding that an MVDDS windfall would harm consumers already using the band, the Commission reasonably asked for specific “comment on the technical parameters that could allow additional terrestrial use of the band without causing harmful interference to incumbent operators.”⁸ In the year-and-a-half since then, DISH has outright refused to provide these technical parameters, making additional analysis by the Commission or stakeholders impossible.

Instead, DISH and RS Access have submitted “technical analyses” untethered from reality that have been eviscerated in the record by a litany of commenters. For example, the MVDDS submissions completely ignored the most serious constraint for satellite users of the band, which is that all satellite spectrum is shared among multiple users. In fact, SpaceX recently announced that it reached a coordination agreement with OneWeb,⁹ but historic accomplishments like this require the flexibility that comes only with full access to this shared band. But beyond inexplicably ignoring most operators in the band, RS Access went further by assuming in its analysis that it would offer service only in dense urban areas, while requiring satellite operators to essentially forgo these often unserved or underserved users and remain almost entirely in rural areas. Thus, even though RS Access’s analysis concluded that “Starlink terminals within the 5G coverage area typically suffered an exceedance,”¹⁰ it was able to avoid finding interference by improperly assuming almost complete geographic separation of the two services. And, despite the many errors outlined in the record, RS Access has refused to correct its study without simultaneously bottom dealing by introducing even more egregious flaws.

But while DISH may never provide any proposed rules and RS Access may never honestly correct its false assumptions, SpaceX has been able to at least improve the submissions paid for by RS Access. Specifically, SpaceX fixed several of RS Access’s faulty inputs, including incorrect antenna height, ignoring required protections for radio astronomy, ignoring deployment requirements, and overstating ground clutter while understating line-of-sight interference. But SpaceX still left in place several assumptions that are unrealistically favorable for DISH, including ignoring handsets and backhaul, the effects of spectrum splitting, and out of band emissions, while assuming unrealistic antenna performance. Yet, despite this litany of favorable assumptions that RS Access granted itself, a corrected version of its own Monte Carlo analysis still shows that a terrestrial mobile service would cause harmful interference to satellite users

⁷ *12 GHz NPRM*, ¶ 2.

⁸ *Id.* ¶ 22.

⁹ See Letter from David Goldman and Kimberly M. Baum to Marlene H. Dortch, IBFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-MPL-20200526-00062, and SAT-APL-20210112-00007 (June 13, 2022).

¹⁰ Letter from V. Noah Campbell to Marlene H. Dortch, WT Docket No. 20-443, Attachment at 11 (June 1, 2022).

essentially whenever its base stations are transmitting, which equates to 73.9% of the time of the total time.

Leaving this Harmful Proceeding Open is Harming Americans and Wasting Commission Resources

Given these results, leaving the proceeding open any longer simply cannot be justified for policy or technical reasons. Over the six years the Commission has let this proceeding fester, satellite operators have been forced to spend countless hours of engineering time responding to frivolous arguments by DISH and RS Access—time that would have been better spent improving services for otherwise unserved Americans and people around the world. Worse, DISH has now demonstrated that it will stoop to new levels to harm SpaceX, including launching attacks for providing services to those in war-torn countries.¹¹ These attacks have delayed new services, such as mobile connection, badly needed by otherwise unserved Americans. Moreover, they have wasted precious Commission resources that could have been used to respond to criticism from Congress that these sorts of delays harm America’s competitiveness and security.

The Commission must send a strong statement that this behavior will not be tolerated by swiftly shutting down this harmful proceeding. But given the new evidence presented with this letter, the Commission should also investigate whether DISH and RS Access submitted their technical “studies” with intention to mislead the Commission into improperly granting them spectrum rights, even knowing the extraordinary harm they would cause to real Americans that depend on satellite services in the 12 GHz band.

Sincerely,
/s/ David Goldman
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¹¹ See Letter from David Goldman to Marlene H. Dortch, IBFS File Nos. SES-LIC-20210803-01360, SES-LIC-20210803-01361; ELS File No. 0190-EX-CN-2022; WT Docket No. 20-443 and GN Docket No. 17-183, at 1-2 (June 8, 2022) (refuting DISH’s reliance upon tweets about service in Ukraine).