Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
EchoStar Corporation's Use of	)	SB Docket No. 25-173
2 GHz MSS Spectrum	)	
	)	
Monitoring DISH's Compliance with Conditions	)	WT Docket No. 22-212
Granting an Extension of Time to Complete	)	
Construction of Facilities and Buildout	)	
Commitments	)	
	)	

COMMENTS OF PUBLIC KNOWLEDGE AND OPEN TECHNOLOGY INSTITUTE AT NEW AMERICA

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I. INTRODUCTION AND SUMMARY

Public Knowledge (PK) and New America's Open Technology Institute (OTI) submit these Comments in response to the Space Bureau's recently opened docket exploring EchoStar's use of the spectrum for mobile satellite service (MSS) in the 2 GHz band.[1] PK and OTI believe that a robust approach to spectrum allocation and an innovative framework for satellite industry growth are important for spectrum leadership. In achieving this, spectrum licenses should be used as a tool to create competition, foster innovation, and uplift all Americans through careful allocation. However, sometimes spectrum licenses may also be used as a weapon to knock down an emerging competitor or to boost a certain company in spite of another. For decades, the Commission has rejected such a "command and control" approach favoring one technology at the expense of another – especially where, as here, the existing licensee has invested heavily in the band and where action by the Commission would cause millions of Americans to lose vital services for 911 access, as well as for mobile voice and data services.

[1] Space Bureau Opens New Docket To Explore EchoStar Corporation's Use Of 2 GHz MSS Spectrum, Public Notice, SB Docket No. 25-173, DA 25-405 (May 12, 2025).

This proceeding was released simultaneously, and works in tandem, with a separate proceeding calling for the reconsideration of an extension on performance obligations granted to EchoStar. In combination, these proceedings would cripple the ability of Boost to become a fourth national mobile wireless competitor as envisioned in the Department of Justice consent decree in the T-Mobile/Sprint merger and subsequent modification of DISH's (now EchoStar's) licenses. This jeopardizes a multi-billion-dollar investment by an American company deploying a technology (O-RAN) considered essential to the future of our wireless leadership and national security. It threatens thousands of American retail and manufacturing jobs, national security innovation in our networks, and access to high-quality, affordable mobile services for millions of Americans, particularly through Boost's pre-payment plan. The Commission's attempt to change the entirety of MSS in the 2 GHz band, while at the same time eliminating a strong player in both the satellite internet and mobile industries, is therefore not only anticompetitive, but stifling of the entirety of the mobile broadband industry.

Furthermore, the Public Notice strongly suggests that the Commission favors adding new MSS entrants in the band at the expense of terrestrial ATC use, fundamentally altering the balance between terrestrial and satellite use that the Commission previously found served the public interest.[2] Such a momentous reversal of policy should not take place at the Bureau level, in two sentences, in a Public Notice with the minimum possible deadline, and which was not even given a chance to appear in the Federal Register. The Commission has pointed to no circumstances that would create the need for such haste on a complex matter of national importance. The rules for the 2 GHz band were adopted by the full Commission after a notice

[2] Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands, 27 FCC Rcd. 16102, 16108 (2012) ("AWS-4 Order").

and comment rulemaking. Any alteration of those rules requires a similar process. To be clear, PK and OTI do ***not*** support moving forward with any proceeding to alter the 2 GHz band. Commenters note, however, that the current Public Notice cannot substitute for the proper notice and comment proceeding that the Administrative Procedure Act requires.

II. THE COMMISSION MUST PUT THE BEST INTEREST OF THE PUBLIC FIRST WHEN EVALUATING MSS IN THE 2 GHZ BAND.

It is well established that the Federal Communications Commission has a duty to manage spectrum "in the public interest."[3] This includes far more than "spectrum efficiency." In considering the proper balance of interests in managing spectrum, the Commission must seek to advance "vigorous economic competition [and] technological advancement,"[4] public safety (including the ubiquity of mobile 911),[5] and the national defense.[6] Additionally, although the Commission has the authority to make new rules pertaining to the management and use of spectrum, it owes a general duty of procedural fairness and consistency under the Administrative Procedure Act and Sections 312 and 316 of the Communications Act (procedures for cancelling licenses or modifying licenses). The Commission must consider ***all*** these before deciding to take actions that may harm the American public.

III. ECHOSTAR IS UTILIZING THE 2 GHZ BAND FOR MSS CONSISTENT WITH THE TERMS OF ITS AUTHORIZATIONS, THE COMMISSION'S RULES AND POLICIES, AND THE PUBLIC INTEREST.

Reliable data, all accessible within the Commission's own filing systems, demonstrates that EchoStar is utilizing the 2 GHz band for MSS consistent with the Commission's terms as well as its public interest imperative. In 2012, the Commission itself noted that EchoStar,

[3] 47 U.S.C. § 303(r); NBC v. United States, 319 U.S.C. 190 (1943).
[4] 47 U.S.C. § 257.
[5] 47 U.S.C. § 251(e)(3)-(4).
[6] 47 U.S.C. § 151.

through its subsidiaries, met its obligation of operating MSS in the 2 GHz band.[7] Since then, EchoStar has made progress to further expand its use of MSS in this band by expanding its provision of 5G wireless services in AWS-4, as detailed in several reports, and will soon be further demonstrated as EchoStar meets its final milestone commitment for its 5G license that was properly extended to June 2025.[8] The 2 GHz spectrum is not lying fallow; EchoStar is spending billions of dollars building a robust 5G network to utilize the 2 GHz band to its fullest potential. Moreover, EchoStar's authorization to deploy a hybrid 5G terrestrial and direct-to-device (D2D) satellite service in its 2 GHz spectrum is a unique opportunity for further innovation and consumer benefit, which could both be similar to and far higher quality than the still nascent D2D partnerships between the other three national mobile carriers and LEO satellite operators Starlink and AST SpaceMobile.

In addition to meeting–and likely exceeding–the requirements under the law, procedure, and policy, EchoStar's current use of the 2 GHz band affirmatively ***promotes*** the public interest. EchoStar is on track to build and deliver a new, high-quality 5G network that will only be possible through its current exclusive access to spectrum for MSS in the 2 GHz band. This network will build an important fourth facilities-based nationwide mobile network that also leverages innovative and strategically important Open RAN (O-RAN) technology. As the Commission, DOJ, and many Commenters in the past have noted, a fourth competitor in the wireless market will create competition that drives consumer costs and service prices down.[9] As

[7] AWS-4 Order, ¶ 10.
[8] Letter from Joel Taubenblatt, FCC, to Jeffrey Blum, DISH, WT Docket No. 22-212 (Sept. 29, 2023).
[9] *See e.g.,* Petition to Deny of Public Knowledge, Open Technology Institute at New America, Benton Institute for Broadband & Society, Access Humboldt, and Institute for Local Self-Reliance, GN Docket No. 24-286, at 10 (filed Dec. 9, 2024).

prices rise daily for everyday consumers, enabling EchoStar's 5G networks in this band will be at least one positive, welcomed change that will help to lower bills, enable consumers to switch carriers more freely, and drive competition.

In short, not only is EchoStar using the band as directed by the Commission, it is doing so in new and innovative ways that promote our national policy of expanding O-RAN use. Permitting new uses that create harmful interference, degrade network performance, and discourage investment (by both EchoStar and other licensees unnerved by the Commission's actions here) is contrary to, and inconsistent with, the public interest.

IV. ALLOWING NEW ENTRANTS TO UTILIZE MSS IN THE 2 GHZ BAND, WHETHER ON A SHARED OR EXCLUSIVE BASIS, THWARTS THE PUBLIC INTEREST.

While commenters generally support spectrum sharing, it has always been supported on a ***non-interfering*** basis.[10] The Commission's Public Notice does not seek comment on non-interfering ways to increase the use of the band. Rather, in addition to asking whether EchoStar (the existing licensee) is using the band "consistent with the terms of its authorizations and the Commission's rules and policies governing the expectation of robust MSS," the Public Notice separately seeks comment on "on steps the Commission might take to make more intensive use of the 2 GHz band, including but not limited to allowing new MSS entrants in the band." The Public Notice does not include the usual words "on a non-interfering basis."[11]

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[10] For example, when PK and OTI supported enhanced sharing in the 12 GHz band, they stressed that the Commission should only permit enhanced MVDDS use or a new unlicensed underlay on a non-interfering basis. Reply Comments Of Public Knowledge and The Open Technology Institute at New America, WT Docket No. 20-443, GN Docket No. 22-352 (filed Sep. 8, 2023).

[11] Again, the Commission's focus exclusively on the provision of additional satellite services, at the cost of existing terrestrial service, is completely inconsistent with all previous Commission policy. Indeed, the Commission previously had sought to enhance ancillary terrestrial component (ATC) service through multiple proceedings and waivers. Additionally, the Commission has ongoing proceedings seeking to expand available spectrum for both FSS and MSS. *See FCC Looks to Unleash More than 20,000 Megahertz for Satellite Spectrum Abundance*, News

Regardless, EchoStar has been able to make its investments in the 2 GHz band based on the assurance that it would enjoy exclusivity for its terrestrial 5G network. As the Commission found in the AWS-4 Order, based on the engineering analysis, only exclusivity could ensure coordination between MSS operation and terrestrial operation.[12] In the more than a decade since the AWS-4 Order, no one has taken any steps to propose a means of sharing operation in the band without causing harmful interference to the licensee. As the Commission should be well aware from the history of non-exclusive licensing, mechanisms for sharing spectrum on a non-interfering basis do not just "happen." It is one thing to create non-exclusivity from the beginning, encouraging coordination from the start. But even here, as the Commission has discovered in trying to adjust the rules for sharing in existing shared satellite bands to accommodate the dramatic changes in the industry, legacy systems with long-standing mechanisms can prove stubbornly difficult to adjust in a way that is positive and pro-competitive. Spectrum sharing on a co-primary (and more generally on an unlicensed) basis frequently leads to innovation and drives progress. But ensuring the success of such systems requires significant good faith effort by stakeholders and the Commission.[13]

Nothing in the record – or in any related record – provides any reason to change the Commission's previous conclusion that the success of hybrid systems in AWS-4 requires exclusivity. No one has described a new technology or mechanism for coordination on a non-

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Release, Media Relations Bureau and Space Bureau (rel. May 22, 2025). Surely the Commission should await the outcome of these proceedings before interfering in a band with an active licensee providing service to millions of customers.

[12] AWS-4 Order, ¶ 30, 45.

[13] Consider CBRS, perhaps the most successful and innovative re-engineering of spectrum rules to support sharing. Today, CBRS is a success story – driving innovation in private networking, rural broadband, and D2D services. But the process of developing a successful mechanism took years to develop (and was frequently delayed by bad faith actions by competitors and changes of heart by the Commission).

interfering basis. The sole basis offered by the PN for rethinking the rules governing the band is the allegation that the band is not being properly utilized, an allegation that does not hold up under even casual scrutiny.

A. THE RECORD HAS NOT YET SHOWN THAT SHARING IS FEASIBLE IN THE 2 GHZ BAND.

First, the Commission must recognize that ***any*** spectrum sharing proposal for the 2 GHz band is a complex topic deserving of further study. Twenty-five years ago, when the Commission first sought to use the 2 GHz band for MSS, the Commission chose to segment the band to divide it among licensees so that licensees would be able to avoid having to deal with prohibitive coordination requirements.[14] Later, when the Commission introduced the AWS-4 service for mobile broadband into the 2 GHz band as an ancillary terrestrial component (ATC), it did so on a co-primary basis and reaffirmed that introducing new MSS operators to the band was incompatible with the newer AWS-4 model.[15] This recognized the unique challenges of sharing between satellite systems and terrestrial systems.[16] Other regulators around the world have similarly found sharing among different terrestrial and MSS providers in the same band prohibitively difficult, given the ubiquitousness of the services.[17] Any introduction of a new MSS operator to the 2 GHz band will almost certainly create harmful interference with EchoStar

[14] *See* Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band*, Report and Order,* 15 FCC Rcd. 16127 (2000).
[15]AWS-4 Order, ¶ 169.
[16] Indeed, only a few years ago, the Commission rejected a far more thoroughly studied proposal for expanded sharing between a mobile terrestrial network and shared satellite spectrum in the Ku band. *See* Expanding Flexible Use of the 12.2-12.7 GHz Band, *Report and Order and Further Notice of Proposed Rulemaking and Notice of Proposed Rulemaking and Order*, 38 FCC Rcd. 5283, ¶ 2 (2023). If the Ku-Band, where multiple FSS providers already shared with MVDDS terrestrial licensee, presented too high a risk of harmful interference, it is impossible to see how opening the AWS-4 band to "new MSS entrants" – as proposed by the PN – could be conjured into existence on the basis of a 3-page Public Notice and a 3-week comment period.
[17] Comments of EchoStar Corporation, RM-11976 at 8-9 (filed Apr. 25, 2024).

that will render the operation and utilization of their licenses impossible, denying critical services to millions of existing customers. If there is a path toward viable MSS sharing, it is not to be found through a slapdash proceeding lacking in evidence based on questionable claims of "underutilization."

Indeed, the debate currently brewing over whether sharing in the band is feasible—precipitated by SpaceX's request to use the band—showcases the number of objections and dearth of any concrete evidence that sharing among MSS users, even if desirable, is realizable. SpaceX alludes to strategies it can use to coexist with the incumbent,[18] but the record on this and similar bands shows broad concern over the lack of technical specificity in the proposal and the potential for interference.[19] Nor are there any compelling recent technological advancements offered that would make the sharing, once deemed infeasible, now suddenly practicable. While not necessarily the case that sharing between multiple satellite and terrestrial licensees (not only in AWS-4 but in all satellite bands) is not or will never be feasible, it is certainly the case that the matter demands further scrutiny and far more compelling evidence than has been put forth so far.

One of the most basic functions of the Commission since the Federal Radio Act of 1927 has been to protect licensees from harmful interference.[20] Consistent with this obligation and precedent, the Commission cannot haphazardly allow other entrants access to 2 GHz spectrum on a shared basis due to the harms it will cause to the public by eliminating EchoStar's MSS *and* 5G terrestrial operations. Indeed, even the suggestion that the Commission might do so has already had a significant impact on EchoStar's access to the necessary capital to expand its

[18] Application Narrative, *Application For Modification to Deploy A 2 GHz Mobile-Satellite System*, ICFS File No. SAT-MOD-20220725-00074 (filed Jul. 25, 2022).
[19] *See e.g., C*omments of Onmispace, LLC, RM-11976 (filed Apr. 5, 2024).
[20] 47 U.S.C. § 302.

network and better serve the public. Although commenters enthusiastically support finding ways to enhance the availability of shared access for satellite broadband, it cannot come at the expense of an operating, expanding network serving millions of customers and introducing much needed competition and innovation into the terrestrial mobile marketplace. It would be far better for the Commission to use the existing pending proceedings designed to promote spectrum sharing among satellite users than to start a new proceeding here. Or, if the Commission insists on experimenting with allowing multiple satellite providers to coexist with terrestrial mobile operations, it should reverse its previous determination in the 12 GHz band and allow Multichannel Video Distribution and Data Service (MVDDS) licensees to offer mobile services. Given that the MVDDS licensees have offered to operate on a non-interfering basis with satellite providers, the 12 GHz band provides a far safer laboratory, on a far more developed record, to test the feasibility of terrestrial and satellite coexistence.

B. THE 2 GHZ BAND IS ROBUST, OPERATES WELL, AND DOES NOT REQUIRE SUBSTANTIAL CHANGE TO PROVIDE NUMEROUS BENEFITS TO THE PUBLIC.

As it stands now, the 2 GHz band operates well and is poised to see significant further investment and growth. The Commission should therefore think carefully before threatening this investment on the basis of a rushed and legally tenuous process.[21] The 2 GHz band holds enormous potential for a 5G terrestrial network to leverage its position as a MSS operator and even to enable EchoStar to integrate its own supplemental communication from space in-band.

[21] It is difficult to see how the Public Notice complies either with the license modification procedures of Section 316 or the rulemaking requirements of the APA. to name just a few deficiencies: the Bureau has no delegated authority to conduct a new rulemaking for the AWS-4 band, the PN fails to provide adequate notice as to the Commission's proposed intentions, and the Commission did not provide adequate time for comment (or an explanation as to why it failed to provide adequate time). *See* 47 U.S.C. § 316(a)(1) (requiring a minimum of 30 days for licensee to reply to any proposed modification).

The 2 GHz band is already providing benefits to consumers and, as EchoStar comes closer to its next 5G buildout milestone, will continue to provide even more benefits to consumers. It is important that the Commission, consistent with the extension and waiver already granted to EchoStar, sees EchoStar's 5G buildout and multi-billion dollar investment through.

V. ANY PROCEEDING THAT JEOPARDIZES ECHOSTAR'S EXISTENCE WILL HARM COMPETITION, HURT AMERICAN CONSUMERS, AND JEOPARDIZE NATIONAL SECURITY.

EchoStar has unique access to critical spectrum resources through licenses that were approved by the Commission, and as such found to be in the public interest. These licenses first supported Dish's D2D services, to include voice and video broadcast services, and now are the beginnings of EchoStar's Boost – all uses that complied with the license requirements and therefore presumptively served the public interest. Currently, EchoStar provides commercial messaging and narrow-band D2D services in Europe and is in the process of commercializing and expanding the same services in the U.S. using its existing its 2 GHz licenses. Thanks to innovation in 5G and the AWS-4 spectrum allowances, these licenses have become even more important and useful as they can enable EchoStar to finally emerge as the fourth major competitor in the wireless market through increased utilization of their 5G network through Boost Mobile. A fourth competitor has been found to be important to keep mobile prices low and will greatly benefit consumers by driving down prices, increasing incentives to develop new, innovative packaged services, and more. The Commission must not stifle this progress by changing the 2 GHz band.

On top of this, if the Commission were to render the 2 GHz band useless for EchoStar, it is more than likely that EchoStar would have to permanently close its doors. Not only would a robust 5G network and the fourth competitor cease to exist in the market dynamics, the carrier would simply disappear for over seven million Americans who rely on Boost Mobile services

today. Taking away the mobile service of so many Americans with one stroke of the sword is certainly not in the public's best interest.

Finally, one of the nation's most secure terrestrial-based networks would cease to exist. EchoStar is building a very secure and safe 5G network, and is a leader demonstrating how carriers can build large national networks with minimal security threats. First, by building a network using O-RAN technology, EchoStar is a leader in developing new technologies that help to make critical telecommunications equipment much safer to use on an increasingly interoperable basis. This has strong implications for the national security sector, as this technology is already important even in its early stages. If the Commission were to force EchoStar's hand and drive it out of business, there is no doubt that critical progress in developing ORAN as an American technology with important implications for national security would disappear too. To maintain its policies in the public's best interest, the Commission must prioritize national security and strong, safe, and innovative networks like EchoStar's.

VI. CONCLUSION

In conclusion, PK and OTI do ***not*** support moving forward with any proceeding to alter the 2 GHz band. EchoStar is utilizing the 2 GHz band according to the terms of its licenses and will to continue its investment and deployment. Permitting EchoStar to continue expanding its network is the best way to make the most efficient use of the band to bring numerous public interest benefits. In contrast, continuing the current inquiry threatens to choke off EchoStar's access to capital and starve it of the spectrum necessary to put its current plans to expand the network into effect. The Commission should therefore terminate this proceeding and focus on better developed – and less anti-competitive – efforts to find spectrum for satellite sharing.

Respectfully submitted,

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