

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

In the Matter of)	
)	
Expanding Flexible Use of the 12.2-12.7 GHz Band)	WT Docket No. 20-443
)	
Expanding Use of the 12.7-13.25 GHz Band for Mobile Broadband or Other Expanded Use)	GN Docket No. 22-352
)	

REPLY OF THE DIGITAL PROGRESS INSTITUTE

I. Introduction

The work of the Federal Communications Commission in reforming and refarming radiofrequency spectrum has created the modern Internet economy, transformed entertainment, transportation, education, healthcare, and numerous other industries, created trillions in consumer surplus, and raised hundreds of billions of dollars for the federal coffers. What is more, abundant flexible use spectrum is key if we are going to lower the cost of deployment and bring broadband to every American at an affordable cost. In short, if America is going to win the race to 5G and beyond, it must continue this important work.

As the Commission recognizes in the *Further Notice*,¹ the 1,050 megahertz of mid-band spectrum in the 12 GHz band present a prime opportunity to create new uses for fixed and mobile broadband applications including 6G. The Digital Progress Institute welcomes this chance to respond to the *Further Notice* and some of the comments in the record to ensure that the Commission continues to put this spectrum to its highest and best use.

¹ *Expanding Flexible Use of the 12.2-12.7 GHz Band, Expanding Use of the 12.7-13.25 GHz Band for Mobile Broadband or Other Expanded Use*, WT Docket No. 20-443, GN Docket No. 220352, Report and Order and Further Notice of Proposed Rulemaking and Notice of Proposed Rulemaking and Order, FCC 23-36 (2023) (“*Further Notice*” for simplicity).

First, the Commission should take all the steps necessary to open at least 500 megahertz of spectrum in the 12.7 GHz band for mobile and fixed operations. Such measures include maintaining the freeze on incumbents, setting rules for high-power, 100 MHz channels that can be aggregated to allow for 6G applications, and requiring new licensees to share the costs in relocating incumbents.

Second, the Commission should look to maximize the use of the 12.2 GHz band for fixed broadband operations. That means requiring non-geosynchronous orbit operators in the band to collect the geolocation of their earth stations (as DBS operators are already required to do). And that means taking seriously the studies in the record that support such operations and letting sound engineering, not histrionics, guide the decision.

II. Maximizing the 12.7 GHz band for 5G, 6G, and Beyond

CCA has it right: “Demand for spectrum to support 5G services continues to rise exponentially, a trend that will both continue and drive technological advancement to 6G.”² That means the Commission must seize opportunities like this one to maximize the use of largely fallow spectrum—like the 12.7 GHz band—for 5G, 6G, and beyond.

First, the Commission should, as proposed, make the freeze of the 12.7 GHz band permanent and dismiss any new space station license applications and new requests for access to the U.S. market that seek to establish new earth stations in the 12.7 GHz band.³ Doing so is important to avoid potential gamesmanship in the band, with operators seeking to establish new stations in the band not to use them but to create valuable spectrum rights that might be later traded away.

² CCA Comments at 3.

³ *Further Notice* at para. 67.

Second, the Commission should establish a band plan and rules that maximize the value of the 12.7 GHz band. Relocating incumbents out of at least 500 megahertz of the band should be the priority to ensure at least 500 megahertz of clean spectrum is available for high-power operations. Should a guard band with satellite operations in the 12.2 GHz band be necessary, as SIA appears to suggest,⁴ those incumbents could be relocated to the lower portion of the 12.7 GHz band as part of that guard band.

In a similar vein, the Commission should establish channels of at least 100 megahertz and allow for free aggregation of those channels by a single terrestrial operator in an area to ensure the spectrum is ripe for 6G. As Qualcomm explains, channels of at least 100 megahertz are ideal for 5G operations—and if the Commission is going to prepare for 6G it should be looking for opportunities—like the 12.7 GHz band—to allow the aggregation of even more contiguous spectrum.⁵

Third, the Commission should require new licensees to collectively, not individually, relocate incumbents. Specifically, the Commission should establish a central clearinghouse to process and reimburse incumbents for relocating their operations. The clearinghouse should in turn estimate the costs of relocation for each incumbent (relying on a cost catalog to ensure reasonable estimates⁶), and then the Commission should offer each incumbent a choice: transition in a timely manner and be reimbursed for proven, reasonable costs or receive 110% of the estimated costs of relocation to vacate the spectrum entirely. The total costs for relocation would then be borne by new licensees in proportion to the value of the spectrum they receive.

⁴ SIA Comments at 4.

⁵ Qualcomm Comments at 9-10.

⁶ *See, e.g., Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Report and Order, 29 FCC Rcd 6567, para. 619 (2014) (directing the Media Bureau “to . . . develop a final Catalog of Eligible Expenses, and make other determinations regarding eligible costs and the reimbursement process”).

This centralized plan is fully consistent with the Commission’s Emergency Technologies framework and has several advantages over an individualized approach. *For one*, maximizing the potential of the 12.7 GHz band requires clean spectrum across the country, which only a collective approach can guarantee. *For another*, a collective approach will ensure that rural areas are not left behind in any clearing—American families in Appalachia and American veterans in the Badlands deserve next-generation services as much as anyone, and a parcel-by-parcel approach threatens to stranding incumbents without any funding for relocation in more rural areas, both limiting their access to new, more efficient equipment and saddling rural Americans with inferior service. *For yet another*, a collective approach will establish clear, reasonable expectations for all new licensees and incumbents, avoiding any need for individualized cost-sharing rules that might favor some new licensees over others and lead to disputes.⁷

If the Commission abides by these few, simple principles, the 12.7 GHz band holds great promise for the American public.

III. A Full Opportunity for High-Power, Terrestrial Operations in the 12.2 GHz Band

In the *Further Notice*, the Commission recognized the importance of continued satellite access to the 12.2 GHz band for both DBS and NGSO operations. The Commission further explained its significant concerns with the record to date on the allowance of mobile operations in the band. Nonetheless, it made clear that authorizing high-power, two-way, fixed operations including high-speed broadband remained a viable path.

⁷ This is especially true if the Commission adopts smaller license areas, such as county-level licenses, as proposed by some commenters. *See, e.g.*, CCA Comments at 7.

To move forward, the Commission should first leverage the fact that DBS operators are already required to maintain data on subscriber locations⁸ and make that data available—on a confidential basis with appropriate protections—to 12.2 GHz terrestrial licensees. It should also require NGSO operators in the 12.2 GHz band to maintain such data and make it available in a similar manner. Doing so would put an end to the debates in the record to date on how rural NGSO operations are, where earth stations are located, and whether an increase in DBS deployments is even a concern that needs to be addressed.

Next, the Commission should take seriously the studies showing that fixed operation would not cause harmful interference to the incumbent satellite operators.⁹ The Commission should also allow operators to submit additional studies using real-world information available in the DBS and NGSO databases if they believe doing so would strengthen the analysis. The ability for high-power, fixed broadband operations in the 12.2 GHz band offers a real chance for rural Americans on Tribal lands to receive high-speed broadband at home for the first time—not to mention the American families and veterans throughout the country. Assuming the engineering bears out, the Commission should seize this opportunity to connect the unconnected.

Finally, the Commission should ignore any plaintive cries from satellite operators against moving forward here. *For one*, all such operators will remain fully protected in their operations so long as the Commission remains focused on the engineering—that should drive the decision, not petty politics. *For another*, the coalition to free up the 12 GHz band have essentially borrowed from the practices of NGSO satellite operators, who routinely request a host of rule waivers in their applications and are routinely admonished by the Commission to coordinate

⁸ See *Further Notice* at para. 55.

⁹ See, e.g., DISH Comments, Exhibit 1.

spectrum use rather than block new entry. The Commission should take the same approach here, recognize that some incumbents simply want to block new competitive entry and admonish them to offer solutions to any engineering problems they spot, rather than just hysterics.

Unleashing the power of this band for rural and remote Tribes can be a game changer and build on the success of Tribes operating in the 2.5 GHz band. The Commission should not let this opportunity to make spectrum policy more equitable and inclusive go to waste.

Respectfully submitted,

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