

**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 Flexible Use of the 12.7-13.25 GHz Band for Mobile Broadband or Other Expanded Use)	GN Docket No. 22-352
)	

COMMENTS OF INCOMPAS

INCOMPAS submits these comments in response to the Federal Communications Commission’s (“Commission”) *Report and Order and Further Notice of Proposed Rulemaking and Notice of Proposed Rulemaking and Order* (“*Further Notice*” or “*Notice*”) seeking proposals on making more efficient and intensive use of the 12.2-12.7 GHz band for expanded terrestrial operations and the 12.7-13.25 GHz band for mobile broadband and other advanced services.¹

I. INTRODUCTION & SUMMARY

INCOMPAS, the internet and competitive networks association, is the preeminent national industry association advocating for competition policy across all networks. INCOMPAS represents competitive broadband companies that are building networks of the future, including fiber and fixed wireless deployments that connect residences, businesses, and community anchor institutions, such as schools and hospitals. INCOMPAS members are catalysts for creating economic growth and improving the quality of life of all Americans through technological innovation, new services, and greater choice for consumers and

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. 22-352, Report and Order and Further Notice of Proposed Rulemaking and Notice of Proposed Rulemaking and Order, FCC 23-36 (rel. May 19, 2023) (“*Further Notice*” or “*Notice*”).

businesses. These companies offer broadband voice, video, Internet, and data offerings, using both wireline and wireless networks to reach their customers and deliver state-of-the-art solutions like managed services, cloud computing, data storage, over-the-top content and streaming, and unique applications that are developed and deployed via broadband networks.

INCOMPAS has been active in promoting the growth of next generation networks through pro-competition policies. It is in this spirit that the association and its members commends the Commission for seeking comment on “expanding the beneficial use of up to 1,050 megahertz of mid-band spectrum” including potential expanded terrestrial use in the 12.2-12.7 GHz band (“12.2 GHz band”).² The Commission’s instant proceeding has the potential to promote broadband adoption and competition and make more efficient use of the spectrum in this band. This rulemaking represents a significant opportunity for the Commission to modernize decades-old rules and unlock critical capacity in the 12.2 GHz spectrum band for the next generation of high powered, two-way terrestrial fixed service.

Taking immediate action to modernize the rules in the 12.2 GHz band and make spectrum available for fixed wireless service offers the promise of reliable and affordable connectivity for U.S. consumers and increases the ability of the Commission to address the digital divide. Increased competition in broadband through the broader use of mid-band spectrum will also encourage more innovation, more choices, and greater opportunities for customers, particularly those that stand to benefit in unserved and underserved communities.

To facilitate a viable fixed wireless service in the 12.2 GHz band, the Commission will need to reconsider the outdated rules that currently govern the services in the band. However, such reconsideration will still allow the Commission to match the original intent of the rules

² *Further Notice* at para. 1.

which were “designed to enable more efficient and intensive spectrum use through increased spectrum sharing.”³ By allocating the band on a co-primary basis to Direct Broadcast Satellite (“DBS”), Fixed Satellite Service limited to non-geostationary orbit systems (“NGSO FSS”) and Multi-Channel Video and Data Distribution Service (“MVDDS”), the Commission demonstrated an early willingness to maximize the efficiency of the band subject to certain limits that prevent harmful interference.⁴ Under the current framework, both NGSO FSS and MVDDS are allocated on a non-harmful interference basis with respect to DBS, and spectrum sharing between the two services is achieved “using a combination of technical limitations, information sharing, and first-in-time procedures.”⁵ In an effort to protect DBS, the Commission adopted “very conservative” technical requirements for MVDDS, “including prohibitions on using MVDDS spectrum for two-way communications and offering mobile service, stringent limitations, and extensive and exhaustive coordination procedures.”⁶ These requirements, which no longer reflect the technological developments surrounding spectrum sharing, have constrained MVDDS providers’ efforts to offer more significant services using the band (despite considerable outlays for licenses and operations).

³ Petition of MVDDS 5G Coalition Petition for Rulemaking, RM-11768 (filed Apr. 26, 2016), at 2 (“MVDDS 5G Coalition Petition”).

⁴ *Amendment of Parts 2 and 25 of the Commission’s Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band with Frequency Range*, Memorandum Opinion and Order and Second Report and Order, 17 FCC Rcd 9614 (2002) (“*MVDDS Second R&O*”).

⁵ *Expanding Flexible Use of the 12.2-12.7 GHz Band, Expanding Flexible Use in Mid-Band Spectrum Between 3.7-24 GHz*, Notice of Proposed Rulemaking, 36 FCC Rcd 606, para. 5 (rel. Jan. 15, 2021).

⁶ MVDDS 5G Coalition Petition at 5.

The need for additional spectrum for broadband and backhaul has underscored the importance of increasing the efficiency of previously allocated spectrum wherever possible. Present-day systems can identify other spectrum users' actual usage across multiple dimensions, including time, frequency, power, and other measures, and exploit idle frequency assignments in the same spectrum. Furthermore, technological innovations make it possible to alter spectrum assignments in response to conflicts, which allow systems to avoid interference and, not incidentally, eliminate the need for inefficient, command-and-control spectrum models that characterized early frequency assignments.

In these comments, INCOMPAS demonstrates first that allowing MVDDS licensees in the 12.2 GHz band to deploy high powered, two-way fixed wireless service will be another important step in bringing competition to a concentrated BIAS marketplace. Second, we note that the spectrum-sharing environment has changed dramatically since the rules governing this spectrum were enacted in the pre-iPhone era and that this proceeding can represent a win-win situation for the U.S. by accommodating satellite and terrestrial operations in the 12.2 GHz band. By allowing industry to bring its sharing technologies to this mid-band spectrum, the Commission can expand its flexible use of the band, connect more Americans to the next-generation of technologies, and protect existing licensees from harmful interference.

INCOMPAS urges the Commission to put the 500 megahertz of existing terrestrial licenses in the 12.2 GHz band to their highest and best use by updating its rules for these licensees and expanding terrestrial fixed use of the shared band for high-powered, two-way fixed service. Doing so is consistent with the Commission's current approach of carefully examining each spectrum band to maximize its benefit and will empower an ecosystem where mid-band

spectrum drives innovation, new technologies, and next-generation connectivity for American consumers and businesses.

II. MAKING THE 12.2 GHz BAND AVAILABLE FOR FIXED WIRELESS BROADBAND WILL SPUR COMPETITION IN A CONCENTRATED FIXED BIAS MARKETPLACE

As the Commission continues its investigation of the potential public interest benefits of expanding terrestrial fixed use in the 12.2 GHz band, INCOMPAS maintains that maximizing the number of providers in the band offers the best chance for consumers to access reliable, affordable broadband throughout the country. Demand for connectivity at home and the need for robust capacity and higher speeds are increasing, especially as a result of the changes American society has experienced due to the COVID-19 pandemic. Consumers are using BIAS at home to work, access education, entertain themselves, shop, and stay connected to friends and family, among many other uses, and they need sufficient connectivity at home to do so. Even as our society has reopened, more employees are working from home and are reliant on fixed BIAS to do their jobs. Moreover, multiple family members are using broadband simultaneously at homes across America through laptops, tablets, gaming devices, and smartphones, and the number of connected devices is growing. Higher broadband speeds, where available, have allowed residential consumers to adopt new applications, like streaming video, that compete with legacy services.

Consumers and businesses stand to reap significant benefits from the introduction of high powered, two-way fixed wireless service in the 12.2 GHz band, particularly given that the fixed BIAS marketplace, as well as the business data services marketplace, remains highly concentrated in most geographic areas. Most Americans have only two BIAS options at home—typically from their cable operator or their incumbent telco. Only a relative few benefit from a

third option, such as a fiber provider or, in some limited cases, a fixed wireless provider. As recently found by Leichtman Research Group, Inc., the top fixed BIAS providers—representing about 96% of the market—“account for over 112 million subscribers, with top cable companies having about 76.2 million broadband subscribers, top wireline phone companies having about 30.8 million subscribers, and top fixed wireless services having about 5 million subscribers.”⁷ Generally, the top cable and telco companies do not compete against each other in their respective categories, but cable and telco companies compete against each other—with cable typically able to offer higher speeds in areas where telcos have not upgraded their networks from copper to fiber. Comcast has almost 30% of the fixed BIAS market share, followed by Charter with about 28%, AT&T with approximately 14%, then Verizon with almost 7%.⁸ These four providers have almost 80% of the fixed BIAS market. Accordingly, most consumers only have two choices for their home BIAS provider—their incumbent cable or telco provider. Some may have a third-party offering from a competitor, such as an INCOMPAS member like Starry, IdeaTek, Sonic, or Google Fiber in one of its markets. Leichtman Research Group notes that the fixed wireless offerings from T-Mobile and Verizon have garnered some subscribers—approximately 5 million.⁹ This is an increase from their total subscribership in Q1 2022, which was approximately 1.4 million.¹⁰ No other competitive fixed wireless service made the list of top providers by the Leichtman Research Group.

⁷ Leichtman Research Group, *About 960,000 Added Broadband in 1Q 2023* (May 15, 2023), available at <https://leichtmanresearch.com/about-960000-added-broadband-in-1q-2023/>.

⁸ *Id.*

⁹ *Id.*

¹⁰ Leichtman Research Group, *About 1,065,000 Added Broadband in 1Q 2022* (May 18, 2022), available at <https://leichtmanresearch.com/about-1065000-added-broadband-in-1q-2022/>.

The FCC’s data shows that for higher-speed fixed BIAS, customers often face even less choice, with many having only one option. According to the FCC’s *2022 Communications Marketplace Report*, which gives the most recent information the FCC has made available for multiple provider options for fixed terrestrial service, the higher the speed offering for fixed terrestrial services correlates with fewer provider options and therefore less competition.¹¹ Customers have even fewer provider options at higher speeds in rural areas and Tribal lands.¹² Where there are only one to two options for higher-speed BIAS—consumers are frustrated by the lack of options and higher prices.

On pricing, competition is a critical factor in keeping broadband service affordable. A recent Open Technology Institute study on the affordability of broadband prices found that the U.S. market suffers from a lack of competition, and that “this lack of choice directly affects the cost and quality of internet service.”¹³ Also, as the country recovers from the global pandemic and the effects of an economic slowdown, consumers and businesses can benefit from new competition for and access to next-generation telecommunications services. By increasing the number of providers offering fixed wireless service, the Commission can ensure that prices for this service remain affordable, that quality of service remains high, and that consumers across the country and on the wrong side of the digital divide gain increased access to next-generation

¹¹ See *Communications Marketplace Report*, GN Docket No. 22-203, 2022 Communications Marketplace Report, FCC 22-103, 43-50 (rel. Dec. 20, 2022).

¹² *Id.*

¹³ OPEN TECHNOLOGY INSTITUTE AT NEW AMERICA, *THE COST OF CONNECTIVITY 2020* (2021), available at <https://www.newamerica.org/oti/reports/cost-connectivity-2020/> (last visited June 1, 2021).

broadband service. Expanding the 12.2 GHz band to include high-powered, two-way fixed wireless service is an important step in achieving this goal.

III. MVDDS LICENSEES CAN QUICKLY BRING FIXED WIRELESS SERVICE TO MARKET GIVEN ADVANCEMENTS IN SPECTRUM SHARING AND INVESTMENT IN EQUIPMENT THAT CAN BE DEPLOYED FOR 12.2 GHz OPERATIONS

Significant technological advances in spectrum sharing and band co-existence made by terrestrial providers in the 12.2 GHz band should give the Commission confidence that it can increase opportunities for shared use of the band while protecting incumbents from harmful interference. The 12.2 GHz band is allocated on a co-primary basis to DBS, NGSO FSS, and fixed services (MVDDS), with the latter two services gaining priority on a “first-in-time, first-in-right” approach with priority afforded to whichever service was deployed earlier.¹⁴ Terrestrial systems have undergone significant changes to create more focused transmissions—particularly given the static nature of fixed wireless—reducing the likelihood of emissions into DBS and NGSO FSS receivers that caused the Commission to put power restrictions on terrestrial services in the first place. Coupling these mitigation techniques with spectrum sharing frameworks, like the Automated Frequency Coordination regime that manages operations in the 6 GHz band, should give the Commission the assurances it needs that incumbents in the band are unlikely to experience harmful interference from MVDDS operations.

Reconsideration of these outdated rules is consistent with the Commission’s long advocated flexible use rules that allow spectrum to be put to its highest and best use. The Commission has stated its preference for periodically reviewing its spectrum allocation decisions, arguing that “the failure to revisit historical allocations can leave spectrum handcuffed

¹⁴ See 47 C.F.R. § 101.103(f)(1).

to particular use cases and outmoded services.”¹⁵ Installing more flexible spectrum rights in the 12.2 GHz band will ensure that MVDDS users can quickly and readily deploy valuable fixed wireless services. Current MVDDS licensees and equipment manufacturers have already indicated that they are prepared to quickly develop and make available products designed for the band that offer reliable and fast network connectivity. Citing to the “promise of fixed wireless,” INCOMPAS member Go Long Wireless, LLC has relayed to the Commission that it has “been working for some time on deployment options, including the development of proprietary two-way radio equipment” that will allow it to quickly bring to market a two-way fixed wireless service that can address the broadband needs of customers in its pre-existing service areas.¹⁶ Similarly, the Cambridge Broadband Networks Group (“CBNG”) has indicated that it can supply “point-to-multipoint fixed wireless technology capable of operating in this space [12.2-12.7 GHz].”¹⁷ CBNG has both an existing product, VectaStar, and a new product in development that are “well suited to operating within the MVDDS bands in a high-power, two-way terrestrial fixed wireless configuration.”¹⁸

Thus, INCOMPAS urges the Commission to modernize the long-outdated rules currently governing the 12.2 GHz band in a manner that will accelerate terrestrial fixed deployment. Specifically, the Commission should modify the existing terrestrial licenses by updating the MVDDS operational rules to permit these licensees to provide high-powered, two-way fixed

¹⁵ FCC, CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN, at 78-79 (2010).

¹⁶ Ex Parte Letter of Dennis P. Corbett, Counsel for Go Long Wireless, LLC, to Marlene Dortch, Secretary, FCC, WT Docket No. 20-443, GN Docket No. 22-352 (filed May 11, 2023).

¹⁷ Letter of Paul Wright, VP Sales and Customer Operations, CBNG, to Marlene Dortch, Secretary, FCC, WT Docket No. 20-443, GN Docket No. 22-352 (filed Aug. 9, 2023).

¹⁸ *Id.*

wireless service and adjusting the technical rules on transmit power and Equivalent Power Flux Density (“EPFD”) levels to enable the service while protecting other users from harmful interference. These outdated and restrictive rules have kept MVDDS providers from fully realizing the potential of the band and updating the rules to permit two-way terrestrial use for the delivery of fixed wireless services will enable the spectrum to be put to its highest valued use. The U.S. needs more spectrum for advanced services and backhaul in order to innovate and compete with other nations that have already allocated significantly greater amounts of mid-band spectrum for 5G. Making modifications to the current allocations in the 12.2 GHz band is a sensible starting point.

IV. CONCLUSION

For the reasons stated herein, INCOMPAS urges the Commission to expand the 12.2 GHz band for high-powered, two-way terrestrial fixed use.

Respectfully submitted,

INCOMPAS

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