

**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 Expended Use	)	GN Docket No. 22-352
	)	

**COMMENTS OF 5G FOR 12 GHz COALITION**

Chip Pickering  
CEO of INCOMPAS  
Co-Chair of 5G for 12 GHz Coalition  
1100 G Street NW  
Suite 800  
Washington, DC 20005  
(202) 296-6650

Joe Lockhart  
Partner of Rational 360  
Co-Chair of 5G for 12 GHz Coalition  
1828 L Street, NW, Suite 640  
Washington, DC 20036

August 9, 2023

## TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION & SUMMARY.....	3
II. THE COMMISSION SHOULD EXPAND THE 12.2 GHz BAND FOR HIGH-POWERED, TWO-WAY FIXED BROADBAND SERVICES.....	6
III. AS PART OF EFFORTS TO CLOSE THE DIGITAL DIVIDE, THE COMMISSION SHOULD PROVIDE PRIORITY ACCESS TO 12.2 GHz SPECTRUM OVER TRIBAL LANDS TO TRIBAL ENTITIES.....	9
IV. THE 12.2 GHz BAND OFFERS THE FCC POTENTIAL TO EXPAND OPPORTUNISTIC USES OF ATTRACTIVE SPECTRUM CRITICAL TO ADVANCING NEXT GENERATION SERVICES.....	12
V. ADDING THE 12.7 GHz BAND TO THE NATION’S MID-BAND PORTFOLIO WOULD MAKE IDEAL SPECTRUM RESOURCES AVAILABLE FOR MOBILE AND FIXED WIRELESS SERVICES.....	13
VI. CONCLUSION.....	16

**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 5G FOR 12 GHZ COALITION**

The 5G for 12 GHz Coalition (“Coalition”) 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 information on whether the 12.2-12.7 GHz and 12.7-13.25 GHz bands are suitable for expanded licensed and unlicensed use and how the Commission can make more efficient use of the bands.<sup>1</sup>

**I. INTRODUCTION & SUMMARY**

The 5G for 12 GHz Coalition is comprised of telecommunications industry and public interest leaders who seek to unleash the power of next generation broadband by making the 12.2-12.7 GHz band (“12.2 GHz band”) available for new terrestrial services.<sup>2</sup> Despite the

---

<sup>1</sup> *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*”).

<sup>2</sup> The 5Gfor12GHz Coalition consists of 35 diverse and prominent public interest groups, trade associations, and companies in the telecommunications sector, calling on the FCC to act swiftly to allow the 12.2 GHz band to unlock the power of high-speed broadband for all

Commission’s decision not to add a mobile allocation to permit a two-way terrestrial 5G service in the 12.2 GHz band at this time, the Coalition and its members continue to view this proceeding as an opportunity to promote competition in the band and to increase the availability of broadband services through other licensed and, if technically feasible, unlicensed uses in the future. By electing to make more efficient use of the 1,050 megahertz of spectrum in these bands, the FCC’s proceeding on expanding flexible use in the 12.2 GHz and 12.7-13.25 GHz (“12.7 GHz”) bands can serve the public interest by increasing competition in broadband while bridging the nation’s digital divide, enhancing our global leadership in terrestrial and mobile services, and enabling, where technically feasible, opportunistic access to unused capacity.

The Coalition looks forward to working with the Commission to discuss the benefits and inherent value in making technical and operational changes to the 12.2 GHz band in order to make terrestrial fixed services available as soon as possible, including higher power two-way point-to-point and two-way point-to-multipoint links. In this proceeding, our industry members will offer specific proposals and detailed technical data supporting our position that the Commission can open the band to expanded use without the risk of harmful interference to the band’s Direct Broadcast Satellite (“DBS”) and non-geostationary orbit fixed satellite service (“NGSO FSS”) incumbents. As the Commission itself notes in the *Further Notice*, today’s

---

Americans. The Coalition has steadily grown since its formation and now consists of the following members: Airspan, A Side Technology, AtLink, Benton Institute for Broadband and Society, BroadbandOne, Cambridge Broadband Networks Group, Center for Educational Innovation, Center for Rural Strategies, Ceragon, Computer & Communications Industry Association, Dell Technologies, DISH, Etheric Networks, Geolinks, Globtel, Go Long Wireless, Granite, INCOMPAS, Mavenir, Mixcomm, MMwave Tech LLC, MVD53, New America’s Open Technology Institute, NextLink, Public Knowledge, Resound Networks, Rise Broadband, RS Access, Rural Wireless Association, Starry, VM Ware, WeLink, White Cloud, Xiber, and X Lab.

spectrum ecosystem contains several examples of spectrum sharing between fixed wireless and satellite service, and, in their individual comments, our Coalition members intend to show coexistence is feasible and that spectrum sharing technology has developed in a way that make many of the hard limits set on the current Multichannel Video Distribution and Data Service (“MVDDS”) providers in the band unnecessary.<sup>3</sup>

The need for additional spectrum for the delivery of broadband 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. With this in mind, the Coalition urges the Commission to take action by December 31, 2023 to expand the 12.2 GHz band for terrestrial fixed use and to “develop a pipeline of mid-band spectrum for mobile broadband or other expanded uses” in the 12.7 GHz band<sup>4</sup>—actions that continue to align with the principles that the Coalition established at the beginning of this proceeding.<sup>5</sup> Unlocking the 500 megahertz of existing terrestrial licenses in the 12.2 GHz band will ensure that the Commission:

- Preserves America’s edge in the race to 5G. Even though the Commission has elected not to allocate the band for mobile wireless services, the 12.2 GHz band can still be expanded for two-way, point-to-point fixed links that would allow providers to expand 5G backhaul to support advanced broadband capacity.
- Eliminates barriers to meeting the full potential of the 12.2 GHz band by aligning federal regulations with today’s emerging technologies to empower an ecosystem where mid-band spectrum drives innovation and next-generation connectivity for American businesses.

---

<sup>3</sup> *Further Notice* at para. 50 (referring specifically to coexistence in the 17.3-17.8 GHz band).

<sup>4</sup> *Id.* at para. 1.

<sup>5</sup> See *Guiding Principles*, 5G FOR 12 GHZ COALITION, <https://5gfor12ghz.com/principles/> (last visited Aug. 8, 2023).

- Promotes competition in broadband by optimizing use of the 12.2 GHz band—through high-powered, two-way fixed point-to-multipoint wireless service—which will deliver more choices and lower costs for consumers in every corner of the nation, including Tribal communities.
- Supercharges broadband deployment by empowering new technologies without harming existing services consumers rely upon or incumbents operating in the band.

In this comment, the Coalition urges the Commission to reconsider the decades-old rules that have prevented the commercial incumbents from deploying next generation services in the 12.2 GHz band. Given the technical analyses demonstrating that interference issues can be successfully mitigated, the Commission should act quickly to expand the 12.2 GHz band for higher power, outdoor fixed wireless broadband.

## **II. THE COMMISSION SHOULD EXPAND THE 12.2 GHz BAND FOR HIGH-POWERED, TWO-WAY FIXED BROADBAND SERVICES**

The 12.2 GHz band is currently allocated on a co-primary basis to DBS, NGSO FSS, and fixed service.<sup>6</sup> With these co-primary designations, the original precept that the Commission set is that these services are capable of coexistence. However, outdated rules have kept incumbent MVDDS providers from fully realizing the potential of the band, and updating the rules to permit higher powered, two-way terrestrial fixed wireless service will enable the spectrum to be put to its highest valued use.

As the Commission is well aware, terrestrial fixed services generally provide a more static interference environment than mobile services, meaning that fixed services are easier to coordinate and manage. A fixed wireless deployment requires a provider to manage only those beams that serve customers within a coverage area *and* do not cause an exceedance of the

---

<sup>6</sup> See 47 C.F.R. § 101.103(f)(1).

proposed interference protection threshold at DBS or NGSO antennas. DBS and NGSO FSS customers that utilize a dish to receive service are unlikely to experience harmful interference from MVDDS terrestrial fixed operations if these techniques are employed, particularly given the certainty about a fixed service customer's location which allows targeted deployment. In sum, these advances make it possible to protect incumbents from harmful interference and justify revisiting and updating the rules for terrestrial use.

The Commission has recognized these technologies in other proceedings, including the C-band (3.7-4.2 GHz), the upper 6 GHz band (6.7-7.075 GHz),<sup>7</sup> the extended Ku-band (10.7-11.7 GHz),<sup>8</sup> the 12 GHz band itself, the CARS band (12.7-13.25 GHz), portions of the Ka-band (19.3-19.7 GHz,<sup>9</sup> 27.5-28.35 GHz,<sup>10</sup> 29.1.-29.25 GHz<sup>11</sup>), and the 40 GHz band (46.9-47 GHz,

---

<sup>7</sup> See *Unlicensed Use of the 6 GHz Band*, Report and Order and Further Notice of Proposing Rulemaking, 35 FCC Rcd. 3852, 3855 ¶ 7 (2020); *Amendment of Parts 2, 25 & 97 of the Commission's Rules with Regard to Mobile-Satellite Services Above 1 GHz*, Report and Order, 17 FCC Rcd. 2658, 2661 ¶ 5 (2002).

<sup>8</sup> See *Amendment of Part 101 of the Commission's Rules to Modify Antenna Requirements for the 10.7 – 11.7 GHz Band*, Report and Order, 22 FCC Rcd. 17153 ¶ 2 (2007).

<sup>9</sup> See *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd. 7809, 7816 ¶ 21 (2017) (“Finally, we are persuaded by commenters that FSS earth stations can receive in the 19.3-19.4 GHz and 19.6-19.7 GHz bands under blanket licenses and on a secondary basis to the fixed service, without imposing constraints on terrestrial stations. The same mitigation techniques noted by commenters regarding the 17.8-18.3 GHz band, including the ability to switch to alternative frequencies if interference were to occur, apply in this band.”).

<sup>10</sup> See 47 C.F.R. § 25.202(a)(1)(i).

<sup>11</sup> See *Rulemaking to Amend Parts 1, 2, 21, & 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Establish Rules & Policies for Local Multipoint Distribution Services & for Fixed Satellite Services*, First Report and Order and Fourth Notice of Proposed Rulemaking, 11 FCC Rcd. 19005, 19043-44 ¶ 97 (1996) (“[W]e adopt a frequency band segmentation plan which designates 1000 MHz of spectrum in the 28 GHz frequency band for LMDS. One segment of that, 150 MHz, is to be shared by LMDS on a co-primary basis with

47.2-48.2 GHz). These are all examples of spectrum that is jointly allocated to satellite and terrestrial service in an attempt to make more intensive and efficient use of its spectrum resources. Given the needs for more spectrum, the Coalition urges the Commission to consider these technologies in its analysis of the technical feasibility of sharing in the band. The Coalition believes that the comments in this proceeding will demonstrate that it is possible to achieve the dual goals of providing a high powered, two-way fixed wireless service while protecting DBS and NGSO FSS incumbents from harmful interference.

In fact, the record shows little disagreement between advocates for members of the Coalition and satellite incumbents over the introduction of fixed, high-powered, two-way (point-to-multipoint) service and whether the service can share the spectrum with incumbent services in the band.<sup>12</sup> Indeed, it would be contrary to the public interest to lock into perpetuity presumptions about technology that were made when the Commission set rules for the band over 20 years ago, particularly given the differences between mobile and fixed services and the low level of concern in the record for static, fixed services.

The Coalition believes this proceeding can still represent a win-win for MVDDS and satellite providers if the Commission repurposes the band for high-powered fixed wireless by

---

NGSO/MSS feeder links in the 29.1-29.25 GHz segment of the band and is limited to LMDS hub-to-subscriber transmissions.”).

<sup>12</sup> See Letter from Jayson Cohen, SpaceX, to Marlene Dortch, FCC, WT Docket No. 20-443; GN Docket No. 17-183, at 3 (Sept. 16, 2022) (“[T]he near-constant massive interference caused by a high-power terrestrial *mobile* network at 12 GHz—with a large number of base station antennas emitting many wide high-power beams to cell phones—is entirely different than the very limited interference SpaceX occasionally experiences from terrestrial fixed service that operates primarily at lower Ku-band frequencies point-to-point between two fixed towers, typically at very high heights, using a single narrow beam with almost no sidelobe emission toward SpaceX receivers.”) (emphasis added).



relying on a spectrum sharing regime akin to the Automated Frequency Coordination (“AFC”) in the 6 GHz band. Maximizing the number of potential providers in the 12.2 GHz band through frequency coordination offers the best chance for consumers across the country to access reliable, affordable broadband services, regardless of location, while offering the Commission an opportunity to increase competition and close the digital divide. To that end, current MVDDS licensees and other equipment manufacturers have, throughout this proceeding, noted their ability to quickly deploy next generation connectivity services in the 12.2 GHz band in a manner consistent with Commission non-interference rules.<sup>13</sup> Because of these providers’ ability to quickly bring service to the market, this proceeding represents a common-sense approach for the shared use of this mid-band spectrum and an opportunity for the Commission to add to the existing bands that have successfully implemented spectrum sharing between fixed terrestrial and satellite services.

### **III. AS PART OF EFFORTS TO CLOSE THE DIGITAL DIVIDE, THE COMMISSION SHOULD PROVIDE PRIORITY ACCESS TO 12.2 GHz SPECTRUM OVER TRIBAL LANDS TO TRIBAL ENTITIES**

Modernizing the rules in the 12.2 GHz band and making spectrum available for terrestrial fixed services offers the promise of reliable and affordable connectivity for U.S. consumers and increases the ability of the Commission to close the digital divide. According to Federated Wireless, “[m]aking more efficient use of spectrum and creating new opportunities for spectrum access are both critical objectives as the Commission looks to solve challenges of reaching

---

<sup>13</sup> See 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) (“explaining that Go Long . . . has been working for some time on deployment options, including the development of proprietary, two-way radio equipment”). Furthermore, Coalition member Cambridge Broadband Networks Group Ltd. is a supplier of point-to-multipoint fixed wireless technologies that could operate in the 12.2 GHz band.

unserved and under-served communities.”<sup>14</sup> As the Coalition’s public interest partners have explained, opening access to unused capacity in the 12.2 GHz band “will substantially improve broadband access and capacity in rural, Tribal, and other hard-to-serve areas,” and “provide rural ISPs and other entities with the spectrum-for-infrastructure they need to expand broadband services and help to bridge the digital divide.”<sup>15</sup>

Given the inherent potential to meet the needs of underserved communities, like Tribal communities, the Coalition agrees with stakeholders like Tribal Ready, Public Knowledge, and the Open Technology Institute calling on the Commission to establish rules in this proceeding that would provide priority access to 12.2 GHz spectrum over Tribal lands to Tribal entities.<sup>16</sup> Fixed wireless service can be a “critical technology in rural markets where fiber or coaxial technologies are uneconomical” and the Coalition urges the Commission to give Tribal entities access to 12.2 GHz spectrum that can be used for fixed terrestrial services to connect consumers living on rural Tribal lands.<sup>17</sup> The Commission has previously recognized the value of Tribal set

---

<sup>14</sup> Comments of Federated Wireless, Inc., WT Docket No. 20-443, GN Docket No. 17-183 (filed May 7, 2021) at 1.

<sup>15</sup> Comments of New America’s Open Technology Institute, Public Knowledge, *et al.*, WT Docket No. 20-443, GN Docket No. 17-183 (filed May 7, 2021) at 12, 27 (“PIO Comments”).

<sup>16</sup> *See* Letter from Joe Valandra, President & CEO, Tribal Ready, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 22-352 *et al.* (filed May 10, 2023) (“Tribal Ready Ex Parte”) (requesting that the Commission provide for a set aside for Tribal entities to accelerate [fixed wireless broadband] on Tribal lands). *See also* Letter from Michael Calabrese, Director, Wireless Future Program, New America’s Open Technology Institute, and Harold Feld, Senior Vice President, Public Knowledge, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 22-352 *et al.* at 3 (filed May 10, 2023) (Open Technology Institute and Public Knowledge Ex Parte)

<sup>17</sup> Tribal Ready Ex Parte at 1.

asides in promoting deployment in the 2.5 GHz band.<sup>18</sup> The 12.2 GHz band can and should also be an option to help Tribal entities close the digital divide. As the Commission is aware, hundreds of Tribal entities participated in the 2.5 GHz Rural Tribal Priority Window which allowed these communities to meet their connectivity needs by providing overlay licenses for that mid-band spectrum. The Coalition believes that the success of the 2.5 GHz proceeding can be replicated if used as a framework for a 12.2 GHz Tribal set-aside.

Giving Tribal entities priority access to 12.2 GHz spectrum is also critical particularly in light of the Administration's efforts through the Broadband Equity Access and Deployment ("BEAD") program to close the digital divide. While the Administration has indicated a preference for scalable wireline solutions, high-powered, fixed wireless broadband will be an integral part of that effort. As noted by Tribal Ready, which urges the Commission to provide for two-way, point-to-multipoint broadband service at high power, "[t]o prescribe for anything less is insufficient for a provider to offer a level of service consumers expect for high-speed access to the Internet. Truly, anything less isn't broadband."<sup>19</sup>

Finally, as noted above, several equipment manufacturers and providers have indicated that they have developed and are prepared to release or update two-way radio equipment that can be quickly deployed for fixed wireless use in the 12.2 GHz band. Those advocating for a tribal set-aside, like Tribal Ready, implore the Commission to take immediate action to modify the band and establish rules for fixed wireless service that will give equipment vendors the assurances they need to establish an affordable "national ecosystem for gear and equipment" that

---

<sup>18</sup> See *Transforming the 2.5 GHz Band*, WT Docket No. 18-120, Report and Order, FCC 19-62 (2019) (adopting a Tribal priority window for tribal entities to obtain EBS licenses on Tribal lands).

<sup>19</sup> Tribal Ready Ex Parte at 1.

Tribal entities can utilize to deploy fixed terrestrial services in their communities.<sup>20</sup> The Coalition supports this request and urges the Commission to take swift action so that fixed wireless broadband providers on tribal lands will have access to a robust and affordable equipment ecosystem.

#### **IV. THE 12.2 GHZ BAND OFFERS THE FCC POTENTIAL TO EXPAND OPPORTUNISTIC USES OF ATTRACTIVE SPECTRUM CRITICAL TO ADVANCING NEXT GENERATION SERVICES**

As the Commission explores potential expanded terrestrial use of the 12.2 GHz band for licensees, the Coalition welcomes the *Further Notice's* complementary inquiry on whether to permit unlicensed use in the band. Throughout this proceeding, the Coalition has argued that the 12.2 GHz band offers new possibilities to expand unlicensed, opportunistic spectrum access and that these unlicensed uses can have widespread public interest benefits.<sup>21</sup> As part of exploring how to expand use of the 12.2 GHz band, the Coalition fully supports finding ways to maximize unlicensed opportunistic sharing in the band. However, recognizing the urgency NTIA's BEAD program has placed on expanding access to licensed spectrum prior to the start of the BEAD subgrantee application process, the Coalition urges the Commission to prioritize updating the significantly less technically complex rules to permit higher powered, two-way terrestrial fixed wireless service with priority Tribal access before December 31, 2023. At the same time, the Coalition encourages the Commission's Office of Engineering and Technology to conduct a comprehensive study of the potential opportunistic uses of the band, which admittedly may take more time than BEAD rules allow. In the future,

---

<sup>20</sup> *Id.* at 1.

<sup>21</sup> See Ex Parte Notice of 5G for 12 GHz Coalition, WT Docket No. 20-443, 2 (filed Nov. 5, 2021) (urging the Commission to examine whether the band can be authorized for an unlicensed underlay or indoor opportunistic uses that would expand the capacity for next generation Wi-Fi).

these uses should be allowed to the extent they can coexist with existing and expanded licensed services. This will promote innovation and better broadband access for all Americans.

As noted by the Public Interest Organizations (“PIOs”) participating in this proceeding, the proposed development of a spectrum sharing framework that eventually authorizes opportunistic access to available capacity in the 12 GHz band while protecting incumbent users “will generate widespread public interest benefits” including “increasing spectrum access to meet the public demand for expanded services; increasing innovation, competition, and consumer choice; deterring licensees from warehousing spectrum and boost the secondary spectrum market; and improving deployment to rural, tribal, and other underserved areas.”<sup>22</sup>

#### **V. ADDING THE 12.7 GHz BAND TO THE NATION’S MID-BAND PORTFOLIO WOULD MAKE IDEAL SPECTRUM RESOURCES AVAILABLE FOR MOBILE AND FIXED WIRELESS SERVICES**

The various stakeholders in the Coalition, including public interest organizations, trade associations, and private companies, have a shared goal of unlocking licensed mid-band spectrum in order to secure U.S. global leadership, spur competition, and provide next generation connectivity for all Americans. While the 5G for 12 GHz Coalition is primarily interested in maximizing the 12.2 GHz band for two-way, fixed terrestrial use,<sup>23</sup> the Coalition supports the agency’s efforts to expand opportunities for additional operations in the adjacent 12.7-13.25 GHz

---

<sup>22</sup> PIOs Comments at 14.

<sup>23</sup> See Reply Comments of the 5G for 12 GHz Coalition, WT Docket No. 20-443, GN Docket No. 17-183 (filed July 7, 2021) (urging the FCC to maximize the potential of the 12.2-12.7 GHz band by modernizing the band’s operational rules and expanding its allocation to include two-way fixed terrestrial services).

band. As spectrum-sharing technology advances, it enables additional bands of spectrum to be opened up for new or more flexible uses. The Coalition is confident that, under the appropriate sharing framework, the 550 megahertz of mid-band spectrum in the 12.7 GHz band can be brought to market for mobile and fixed broadband and other terrestrial uses and can serve as another important tool in helping close the digital divide in communities across the country.

In the *Notice*, the Commission proposes to “repurpose some or all of the 12.7 GHz band for mobile broadband and other expanded use.”<sup>24</sup> To achieve this result, the Commission seeks comment on how certain aspects of the band, including the licensing and operating rules governing the band could be modified to promote these additional operations. Given the urgent need to make additional spectrum available for 5G and next generation wireless services, the Coalition urges the Commission to consider changes to the 12.7 GHz band that would align federal regulations with advancements in spectrum sharing and enable an ecosystem where mid-band spectrum drives innovation, new technologies, and next-generation connectivity for American consumers and businesses.

Making the 12.2 GHz and the 12.7 GHz bands available for flexible use is critical for the country’s global spectrum leadership, its economic interests, and national security.<sup>25</sup> Adding 500 megahertz of 12.2 GHz spectrum and 550 megahertz of spectrum in the 12.7 GHz band to the nation’s mid-band spectrum portfolio would allow the U.S. to overtake several international competitors, including China, and propel the country back into a global leadership position in 5G

---

<sup>24</sup> *Notice* at para. 62.

<sup>25</sup> See, e.g., *Spectrum Policy*, CTIA, <https://www.ctia.org/spectrum> (last visited July 29, 2023) (“To meet consumer demand and lead the world in 5G innovation, wireless networks need more capabilities and capacity. That means hundreds of megahertz of new licensed spectrum, with an emphasis on making more mid-band available to help reverse the U.S.’s mid-band deficit and realize 5G’s potential.”)

competitiveness. Specifically, the Commission should allocate the 12.7 GHz band for mobile services and modify the 12.2 GHz band to allow, *inter alia*, two-way, point-to-point fixed service that could expand backhaul to support advanced broadband capacity.

Furthermore, the Coalition asserts that the 12.7 GHz band shares important characteristics with the 12.2 GHz band that make this mid-band spectrum ideal for mobile and fixed wireless deployment.<sup>26</sup> In a study conducted on the suitability of 12.2 GHz spectrum for 5G services, the Coalition found that the band “combines the propagation characteristics and coverage advantages of lower mid-band spectrum with the high capacity and throughput of the millimeter-wave (“mmW”) bands.”<sup>27</sup> Like the 12.2 GHz spectrum, the 12.7 GHz spectrum band maintains significant advantages with respect to signal range and coverage area over mmW bands which carry significant cost advantages, as fewer towers would be necessary for providers to deploy terrestrial services. As DISH notes, “it is the mid-band spectrum that allows spectrum re-use, densification, and high bandwidth capacity at relatively low cost,” positioning the country with the largest reserves of mid-band spectrum “to win the 5G race.”<sup>28</sup> Given that this spectrum

---

<sup>26</sup> The Coalition further agrees with the Commission’s assessment that the 12.7-13.25 GHz band “has several attributes that argue in favor of its repurposing for advanced services: it is already allocated for terrestrial mobile service on a primary basis domestically, it is only lightly used by the Fixed (FS) and Fixed Satellite (FSS) and Mobile Services (MS), and there is only a single Federal incumbent at one site.” *Notice* at para. 58.

<sup>27</sup> See Roberson and Associates, LLC, *The 12 GHz Band: Analysis of Physical Characteristics and Applicable Technologies* (July 7, 2021) (“Roberson Report”), appended to Reply Comments of RS Access, LLC, WT Docket No. 20-443, GN Docket No. 17-183 (filed July 7, 2021). Based on these findings, the study’s authors were able to conclude that “[n]etwork architectures, spectrum deployment techniques, and equipment development standards currently used for 5G in other bands can readily extend to the 12.2 GHz band. Given that these are adjacent bands, the Coalition is confident that the 12.7 GHz band shares these technical characteristics.

<sup>28</sup> Comments of DISH Network Corporation, WT Docket No. 20-443, GN Docket No. 17-183, 11-13 (filed May 7, 2021).

is ideally suited for mobile and fixed broadband and could be used to better position the U.S. in its efforts to deploy next generation services, like 5G, the Commission should accord significant weight to the option of expanding the 12.7 GHz band's service rules to accommodate these additional operations.

## **VI. CONCLUSION**

Increased competition in mobile and fixed broadband through the broader use of mid-band spectrum supports free markets that encourage competition, more choices, and greater opportunities for American families. Maximizing the number of potential providers in the 12.2 GHz band and 12.7 GHz band offers the best chance for consumers to access reliable, affordable broadband and mobile services throughout the United States.

Leveraging fixed and mobile broadband services through increasing the licensed U.S. mid-band spectrum allocation is not only about facilitating greater competition and faster speeds, but also building next-generation, open RAN networks that will transform the way American businesses serve American families. Building next-generation broadband networks for enterprise customers will help modernize how hospitals, power grids, factories, and farms operate. Doing so will allow these entities to deploy new automation tools to better serve hardworking Americans who rely on them. With this in mind, the Coalition urges the Commission to consider changes to the service rules governing the 12.2 and 12.7 GHz bands to further promote fixed broadband, mobile, and other expanded use.



Respectfully submitted,

/s/ Chip Pickering

Chip Pickering  
CEO of INCOMPAS  
Co-Chair of The 5G for 12 GHz Coalition  
1100 G Street NW  
Suite 800  
Washington, DC 20005  
(202) 296-6650

/s/ Joe Lockhart

Joe Lockhart  
Partner of Rational 360  
Co-Chair of The 5G for 12 GHz Coalition  
1828 L Street, NW, Suite 640  
Washington, DC 20036

August 9, 2023