ENSURING US LEADERSHIP IN 5G

December 8, 2021

VIA ECFS

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
45 L Street NE
Washington, DC 20554

Re: Expanding Flexible Use of the 12.2-12.7 GHz Band, WT Docket No. 20-443

Dear Ms. Dortch,

On December 6, 2021, representatives of the 5G for 12 GHz Coalition ("Coalition") and the undersigned counsel of INCOMPAS met by phone with legal advisors from the offices of Chairwoman Jessica Rosenworcel, Commissioner Geoffrey Starks, and Commissioner Nathan Simington to discuss the pending *Notice of Proposed Rulemaking* ("*12 GHz NPRM*") in the above-referenced proceeding. A full list of participants in these meetings is provided in Attachment A.

The Coalition is a multilateral consortium of industry leaders comprised of trade associations, public interest organizations, and industry stakeholders that are seeking ways to best utilize and unlock the power of the mid-band spectrum in the 12.2-12.7 GHz band for 5G and opportunistic use.[1] The Coalition has drawn a diverse group of supporters that have coalesced around the evidence showing the feasibility of coexistence in the band. The Coalition and its supporters are calling on the FCC to secure American global leadership in 5G by expanding the 12 GHz spectrum band for two-way mobile and opportunistic use.

In the meeting, the Coalition urged the Commission to modernize operational and technical rules for terrestrial incumbents and open up the 12 GHz band to 5G operations and opportunistic use. Taking this decisive action will secure America's global leadership in 5G, protect our national and economic security interests, and bolster competition and innovative services for American consumers and businesses. Reallocating the band for

[1] The 5G for 12 GHz Coalition includes the following group of 34 diverse members: INCOMPAS, Public Knowledge, DISH, Computer & Communications Industry Association, RS Access, Open Technology Institute at New America, Federated Wireless, Airspan, Altiostar, A-Side Technology, AtLink, Cambridge Broadband Network Groups, Center for Educational Innovation, Center for Rural Strategies, Dell Technologies, Etheric Networks, GeoLinks, Globtel Holding, GoLong Wireless, Granite Telecommunications, Mavenir, mmWave Tech, MVD Number 53 Partners, NextLink, Resound Networks, Rise Broadband, Rural Wireless Association (RWA), TelNet Worldwide, Tilson, VMWare, WeLink, White Cloud, Xiber and X-Lab.

flexible use represents a "win-win" for terrestrial and satellite interests, as well as American consumers.

The Coalition highlighted the bipartisan interest in this proceeding expressed by six U.S. senators in their Questions For Response to Chairwoman Rosenworcel in her recently completed nomination process. Additionally, various submissions in the record have been made by experts, public interest groups, Coalition members, and other stakeholders demonstrating how a new mobile allocation will meet the statutory standard for flexible use of the 12 GHz band—specifically, that such a reallocation would be in the public interest, would not deter investment, and would not cause harmful interference among incumbents in the band. To that end, the Coalition members made the following points:

- **Public Knowledge** explained that opening the 500 megahertz of spectrum in the 12 GHz band to terrestrial 5G will be important to competition in the wireless market and is therefore in the public interest. Based on the submitted technical studies, interference in the band can be avoided and co-existence can be achieved, meaning that consumers can benefit from the variety of services enabled by the propagation characteristics and throughput of the 12 GHz band, including opportunistic uses. Consistent with its previous filings, Public Knowledge and the Open Technology Institute at New America ("OTI") believe that the current rules adopted for the 6 GHz band and the rules proposed for the 6 GHz band could serve as the basis for an unlicensed underlay in the 12 GHz band.[2]

- **OTI** explained how expanding the 12 GHz band for flexible use could enhance broadband for rural and underserved communities, and be a significant building block for next generation Wi-Fi. OTI urged the Commission to authorize the band for indoor opportunistic use, to expand capacity for next generation Wi-Fi, and for use outdoors by providers of fixed wireless point-to-multipoint applications, noting that this would improve access to broadband for rural, tribal, and unserved consumers.

- The **Rural Wireless Association** noted that opening access to unused capacity in the 12 GHz band will provide another way for the Commission to bridge the digital divide by substantially improving broadband access and capacity in rural, tribal, and other hard-to-serve areas. The 12 GHz band offers an opportunity to get better terrestrial 5G spectrum and wireless backhaul, which will enable more IoT opportunities and rural applications like precision agriculture.

- As the primary user of the band, **DISH** explained that it is uniquely positioned to offer analysis and be a resource to the Commission on issues of interference with its DBS service. However, based on the science and data, DISH supports spectrum sharing in the 12 GHz band and believes that coexistence between DBS, NGSO FSS, and terrestrial 5G services is eminently feasible.

[2] The Coalition notes that this final point represents a restatement of positions taken by Public Knowledge and OTI in its joint comments and does not necessarily reflect the views of other Coalition members.

- **RS Access**, which commissioned the only engineering, technical and economic studies that have been submitted in this proceeding,[3] reiterated its position that the co-primary services in the band can co-exist. Additionally, the company highlighted the significant benefits that can be brought to hundreds of millions of Americans with zero impact on more than 99% of future NGSO users if such services prove to be financially and technically viable years from now.

- **Airspan**, a U.S.-based manufacturer of 5G technologies, indicated that gaining access to the 12 GHz band for terrestrial 5G and opportunistic use will enable providers to increase the availability of fixed wireless access networks in unserved communities in both rural and urban settings. Furthermore, equipment manufacturers, like Airspan, will be able to develop products designed for the band that offer reliable and fast network connectivity.

- **GeoLinks** signaled that the 12 GHz band is an ideal candidate for fixed wireless applications. Common carrier point-to-point spectrum is strained and increasingly limited, and the mid-band spectrum in the band is an attractive supplement to operations in the 11-18 GHz bands. Additionally, federally subsidized broadband deployment programs (i.e. CAF and RDOF) and the programs associated with the recent Infrastructure Bill will greatly speed the pace of building gigabit level services. Providing expanded access to the 12 GHz will enable companies like GeoLinks to increase network construction to meet this demand.

- **Go Long Wireless** noted that the technological and equipment landscape for services in the 12 GHz band has changed dramatically since the company acquired its licenses in 2004. The company noted that it could deploy a terrestrial 5G service relatively quickly due to the availability early next year of high powered radios that have readily modifiable software that would allow the company to comport with any rules the Commission adopts in the band.

The Coalition noted that the technical, engineering and economic studies submitted into the record were intended to assist the Commission staff in evaluating the feasibility for coexistence in this band and address other questions raised by the Commission in the *12 GHz NPRM* and by third-party commenters. Specifically, the technical study conducted by Roberson & Associates ("Roberson Report") highlights the utility and suitability of the 12 GHz band for 5G across a variety of settings and demonstrates that the propagation characteristics of the 12

[3] See RKF Engineering Solutions, LLC, *Assessment of Feasibility of Coexistence between NGSO FSS Earth Stations and 5G Operations in the 12.2-12.7 GHz Band* (May 2021), The Brattle Group, *Valuing the 12 GHz Spectrum Band with Flexible Use Rights* (May 7, 2021) appended to Comments of RS Access, LLC, WT Docket No. 20-443, GN Docket No. 17-183 (filed May 7, 2021); *see also* 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).

GHz band are "highly favorable for 5G and resemble those of the lower mid-band frequencies." The report indicates that wireless network operators could use the band to add capacity and coverage to their network ensuring that providers will be able to use the 12 GHz band as a tool to provide coverage in more remote and/or rural areas.[4]

Finally, the Coalition indicated that the *12 GHz NPRM* provides sufficient notice to address all technical, regulatory, legal, and policy issues associated with introducing terrestrial 5G into the 12 GHz band. As such, the Coalition urged the Commission to quickly adopt rules that would reallocate the band for terrestrial 5G use and to simultaneously conduct a Further Notice of Proposed Rulemaking to explore opportunistic use of the band.

If you have any questions about this filing, please feel free to contact me.

Respectfully submitted,

/s/ Christopher L. Shipley

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CC

Ethan Lucarelli
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William Davenport

[4] Roberson Report at 1-2.

ATTACHMENT A

December 6, 2021 Meeting with Chairwoman Rosenworcel's Office

5G for 12 GHz Coalition

- Bruce Fox, Go Long Wireless
- Chip Pickering, INCOMPAS
- Christopher Salemme, Airspan
- Christopher L. Shipley, INCOMPAS
- Carri Bennet, Womble Bond Dickinson (Counsel to the Rural Wireless Association)
- Greg Guice, Public Knowledge
- Harold Feld, Public Knowledge
- James Childs, GeoLinks
- Jeff Blum, DISH
- Lindsee Gentry, Rational360
- Michael Calabrese, Open Technology Institute at New America
- Michael Essington, DISH
- Michael Gerstner, MSD Capital, L.P.
- Daniel Shuchman, MSD Capital, L.P.
- Peter Buonanno, Rational360
- V. Noah Campbell, RS Access LLC

Office of the Chairwoman

- Ethan Lucarelli, Legal Advisor, Wireless and Public Safety

December 6, 2021 Meeting with Commissioner Starks Office

5G for 12 GHz Coalition

- Alison Minea, DISH
- Chip Pickering, INCOMPAS
- Christopher Salemme, Airspan
- Christopher L. Shipley, INCOMPAS
- Carri Bennet, Womble Bond Dickinson (Counsel to the Rural Wireless Association)
- Daniel Shuchman, MSD Capital, L.P.
- Greg Guice, Public Knowledge
- Harold Feld, Public Knowledge
- James Childs, GeoLinks
- Jeff Blum, DISH
- Lindsee Gentry, Rational360
- Michael Calabrese, Open Technology Institute at New America
- Michael Gerstner, MSD Capital, L.P.
- V. Noah Campbell, RS Access LLC

Office of Commissioner Starks

- William Davenport, Chief of Staff & Senior Legal Advisor for Wireless and International

December 6, 2021 Meeting with Commissioner Simington's Office

5G for 12 GHz Coalition

- Alison Minea, DISH
- Chip Pickering, INCOMPAS
- Christopher Salemme, Airspan
- Christopher L. Shipley, INCOMPAS
- Carri Bennet, Womble Bond Dickinson (Counsel to the Rural Wireless Association)
- Greg Guice, Public Knowledge
- Harold Feld, Public Knowledge
- James Childs, GeoLinks
- Jeff Blum, DISH
- Kneeland Gammill, INCOMPAS
- Lindsee Gentry, Rational360
- Michael Calabrese, Open Technology Institute at New America
- Michael Gerstner, MSD Capital, L.P.
- Peter Buonanno, Rational360
- V. Noah Campbell, RS Access

Office of Commissioner Simington

- Erin Boone, Chief of Staff & Wireless Advisor