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January 5, 2018

The Honorable Marsha Blackburn
Chairman
Subcommittee on Communications and Technology
2125 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Blackburn:

Thank you for the opportunity to testify before the Subcommittee on Communications and Technology at the hearing, "The Race to 5G and its Potential to Revolutionize American Competitiveness." Please find enclosed my response to the additional question from Representative Bilirakis for the record, formatted pursuant to your request.

Thank you again for the chance to give the Subcommittee my perspective on the importance of making globally-harmonized spectrum available for 5G, so the U.S. is positioned to lead on this impactful, revolutionizing technology.

Sincerely,

A handwritten signature in black ink that reads "Chris Pearson".

Chris Pearson
President
5G Americas

Enclosure

Answers to Additional Questions for the Record

The Honorable Gus Bilirakis

- 1. As discussed, the FCC has opened an inquiry for the possible use of mid-band spectrum, particularly the 3.7 to 4.2 GHz band. Satellite companies currently make use of these frequencies. Do you have any thoughts on how to quickly and efficiently proceed with 5G in this band in light of these incumbent users?**

Answer: The 3.7-4.2 GHz band (called the C-Band by satellite companies) includes spectrum that is being reviewed in Asian and European markets for 5G. Accordingly, 5G Americas has noted its interest to the Federal Communications Commission (FCC) in 3.7-4.2 GHz being repurposed for licensed mobile broadband. However, because there are satellite incumbents in the band (receive earth stations), sharing mechanisms that protect satellite incumbents and uses while still permitting some terrestrial mobile use in the band should be explored. The FCC's rules should be revised to promote efficiency.

5G Americas believes there is the potential for some dynamic sharing of the band, given the coordinated nature of the earth stations in the bands. The FCC should take further steps to investigate flexible use, starting with conducting a rigorous audit of C-Band use, and the interference susceptibility of such uses, and working with industry to develop protocols for interference tests in the lab and in real world environments. Once the range of uses is fully understood and characterized, workable sharing mechanisms should be explored that would allow for terrestrial use of the band.

5G Americas would support rule changes designed to de-authorize satellite facilities that are no longer in use. Further understanding the extent of actual C-Band use may ultimately allow the FCC to adopt measures that would permit more efficient shared use of the band among existing services.

With respect to other incumbents, the FCC stated in its Mid-Band Notice of Inquiry that there is limited incumbent use of the 3.7-4.2 GHz for fixed services like microwave, and that use has been declining steeply over the last two decades as operators migrate to fiber or other spectrum bands. Incumbents' relocation could be paid for through winning bidders' auction proceeds for access to the band. As a globally harmonized band for 5G, 3.7 GHz could be very valuable at auction as it will offer coverage, capacity, roaming and economies of scale. For fixed services with current stations in the band, relocation to another band entirely, such as 7.1 – 8.4 GHz, may be an appropriate solution, paid for out of auctions proceeds.

Because the 3.7–4.2 GHz band is adjacent to the 3550- 3700 MHz band, already identified by the FCC and a number of other countries' regulators for mobile broadband, the 3.7 – 4.2 GHz band is particularly of interest to 5G Americas for licensed broadband service to efficiently serve the connectivity needs of American citizens.