



FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON

OFFICE OF  
THE CHAIRMAN

January 14, 2020

The Honorable Peter A. DeFazio  
U.S. House of Representatives  
2134 Rayburn House Office Building  
Washington, DC 20515

Dear Congressman DeFazio:

Thank you for your interest in the Federal Communications Commission's ongoing rulemakings related to spectrum in the 3.7-4.2 GHz band, commonly called the "C-band," and the 5.9 GHz band. C-band spectrum is widely seen as a critical swath of mid-band spectrum that could help drive American leadership in 5G, the next generation of wireless connectivity. This spectrum offers both geographic coverage and the capacity to transmit large amounts of data—a combination that is appealing to entrepreneurs and wireless consumers alike.

I share your view that any actions the Commission takes to repurpose the C-band should not interrupt existing services, including the use of altimeters by helicopters and airplanes in the 4.2-4.4 GHz band. One of my four guiding principles in this proceeding is to ensure that incumbent services are protected. Any actions the Commission takes regarding this band will be carefully designed so that aircraft are able to use altimeters in a continuous and uninterrupted manner.

Because protecting incumbents is one of my top priorities in this proceeding, I have tasked the Commission's outstanding engineers with studying the effect that future terrestrial operations in C-band would have on aeronautical equipment in the 4.2-4.4 GHz band. Our engineering staff has been carefully reviewing the October 2019 report by the Aerospace Vehicle Systems Institute (AVSI), as well as other information relevant to protecting the adjacent band altimeters. The Commission is fortunate to have engineers who have extensive experience and expertise in ensuring that our efforts to repurpose spectrum do not cause harmful interference to incumbent operations. They bring many decades of experience in wireless technology and spectrum issues to bear on this proceeding.

Based on the review and analysis of the record by these engineers, I have concluded that the Commission has a path forward that will enable it to quickly make 280 MHz of C-band spectrum available for 5G use through an auction that will generate significant revenue for the American people, without having a negative impact on radio altimeters. This spectrum would be from 3.7-3.98 GHz, which is separated from the 4.2-4.4 GHz band by over 200 megahertz. We will continue to carefully assess the potential impact of the Commission's actions in this band on the critical operations by helicopters and airplanes that use altimeters. I have every confidence that we can make this critical swath of mid-band spectrum available for 5G, the next generation of wireless connectivity, while ensuring that existing users are held harmless.

With respect to 5.9 GHz, during my tenure, automotive safety has been an important priority. Back in 2017, I led an effort to allocate a large swath of contiguous spectrum in the 76-to-81 GHz band exclusively for vehicular radars. These radars have proved especially useful for emergency braking and adaptive cruise control.

The 5.9 GHz band stands in contrast to this progress. As you know, back in 1999, the FCC allocated 75 megahertz of spectrum in the 5.9 GHz band for a service called Dedicated Short-Range Communications. Commonly known as DSRC, this technology was intended to enable ubiquitous transportation and vehicle-related communications.

But results haven't matched that intent. Two decades later, DSRC has evolved slowly. It's not widely deployed. And in the meantime, a wave of new transportation communication technologies has emerged.

In particular, one promising new technology that is gaining momentum in the automotive industry is Cellular Vehicle to Everything, or C-V2X. C-V2X would use standard cellular protocols to provide direct communications between vehicles, and, as the name suggests, everything—including other vehicles on the road, infrastructure (like light poles), cyclists (like me), pedestrians, and road workers. C-V2X is also expected to support new, advanced applications as we transition to faster, more responsive 5G networks. And it is backed by automakers like Ford, Audi, BMW, Daimler, and Tesla. But C-V2X cannot progress so long as the 5.9 GHz band is focused solely on DSRC.

As a result, at its December 2019 Open Meeting, the FCC unanimously agreed—Republican and Democratic Commissioners alike—that the time has come for the FCC to take a fresh look at the 5.9 GHz band. We proposed to make available the lower 45 MHz of the band for unlicensed uses like Wi-Fi and allocate the upper 20 MHz for a new automotive communications technology, Cellular Vehicle to Everything, or C-V2X. We also proposed to seek public input on whether the remaining 10 MHz in the band should be allocated to DSRC or C-V2X.

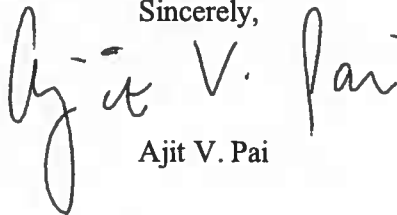
The FCC's proposal to take a balanced approach—one that includes an exclusive home for C-V2X technology in the 5.9 GHz band—has gained support from those associated with the automotive industry. For instance, as the 5G Automotive Association has put it, "Extensive crash avoidance testing continues to demonstrate that C-V2X technology will deliver safety benefits to the American public." That's why the 5G Automotive Association "applauds" the draft proposal. And that's why Ford has stated, "Without this proceeding, C-V2X cannot be deployed. Without this proceeding, innovation is paralyzed. Without this proceeding, the opportunity to realize significant safety benefits is delayed. Triggering a deliberative process to carefully but expeditiously include C-V2X as a crash avoidance technology is the appropriate and timely step. It will also mitigate congestion, reduce carbon emissions and lead to widespread socioeconomic benefits."

And the support for moving forward with the FCC's proposal is incredibly broad. It includes a bipartisan group from Congress, including House Energy and Commerce Vice Chair Yvette Clarke, House Energy and Commerce Subcommittee on Communications and Technology Ranking Member Bob Latta, and Representatives Jerry McNerney, Anna Eshoo,

G.K. Butterfield, Doris Matsui, Billy Long, Mark Walker, Tom Emmer, Brian Babin, and Andy Biggs. It includes think tanks and consumer groups like ALLvanza, American Commitment, American Conservative Union, American Legislative Exchange Council, American Library Association, Americans for Tax Reform, Center for Individual Freedom, Citizens Against Government Waste, Competitive Enterprise Institute, Consortium for School Networking, Consumer Action for a Strong Economy, Digital Liberty, Discovery Institute, Dynamic Spectrum Alliance, Electronic Frontier Foundation, Engine, Free State Foundation, FreedomWorks, Innovation Defense Foundation, Innovation Economy Institute, Institute for Freedom, Institute for Policy Innovation, Less Government, Lincoln Network, Market Institute, Multicultural Media, Telecom, and Internet Council, National Taxpayers Union, New America's Open Technology Institute, Pelican Center for Technology and Innovation, Public Knowledge, Small Business and Entrepreneurship Council, Taxpayers Protection Alliance, TechFreedom, and WifiForward. It includes industry groups and companies like The App Association, Broadcom, Charter, Comcast, Facebook, Intel, Microsoft, National Puerto Rican Chamber of Commerce, NCTA - The Internet and Television Association, Nokia, Qualcomm, Samsung, Verizon, and the Wireless Internet Service Providers Association. These stakeholders believe, as I do, that the FCC's approach is the right one for American consumers.

Thank you once again for your interest. Please let me know if I can be of any further assistance.

Sincerely,

A handwritten signature in black ink that reads "Ajit V. Pai". The signature is written in a cursive style with a large, looped initial "A".

Ajit V. Pai