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## Congress of the United States

Washington, DC 20510

October 21, 2019

The Honorable Ajit Pai Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Pai:

As you consider whether and how to reallocate the C-Band spectrum between 3.7-4.2 GHz for terrestrial "5G" mobile wireless services, we urge you to preserve this spectrum for use in Alaska by maintaining the current allocation of the entire band to the Fixed Satellite Service in our state. C-band satellite services provide the vital, irreplaceable backbone of communications in remote communities all across our state, including broadband, wireless and wireline voice services, telehealth, distance learning, and other innovative products that rely on the C-Band for backhaul.

Alaska comprises over one sixth of the land area of the entire nation, yet has a population only slightly greater than that of the District of Columbia. Outside of Anchorage, Fairbanks, and Juneau, the state is dotted with scores of small, isolated, rural and remote Bush communities that lack access to basic infrastructure that is common elsewhere in the nation. These Alaska communities are not connected to the state's core road system or power grid, and are frequently separated from one another by vast expanses of roadless wilderness or open ocean.

The greatest challenge in delivering services in Alaska is a lack of sufficient, affordable, terrestrial middle mile connectivity. C-Band backhaul provides the critical foundation in our state for education, health care, economic opportunity, civic engagement, public safety, and cultural exchange. Yet, sparse population, forbidding terrain, and harsh climate conspire to make it technically and economically infeasible to deploy scalable terrestrial fiber to serve most Alaska communities. Even where facilities are built, the challenges of operating and maintaining them make satellite backup facilities essential. Seismic activity, extreme weather events, ongoing freeze-thaw cycles, and other environmental challenges create ever-present risks to the network, while transportation and resource challenges may delay repairs for weeks or months.

Alaskan operators rely on the full 500 MHz of the C-Band for the provision of critical and important services. Part of this reliance is due to the need for full-band, full-arc flexibility to efficiently shift frequencies and satellites in the event of a transponder or satellite failure, changing customer requirements or market competition. In Alaska, there are no suitable alternatives to the C-Band in rural and remote Alaska at this time. Fiber, alternative satellite bands, and even microwave technology are unable to replicate the C-Band's coverage and capacity, partially due to Alaska's harsh weather, unique topography and land regulation. Simply put, Alaskan operators use the C-Band out of necessity, not convenience.

Existing use of C-Band in Alaska is efficient, effective, and innovative. In fact, no reallocation of any C-Band spectrum to terrestrial mobile use in Alaska is necessary to ensure sufficient spectrum to support terrestrial mobile services in Alaska or upgrades of such systems, including to 5G, for the

foreseeable future. The large cities of the lower 48 states are far larger and more densely populated than Anchorage, creating a very different balance of public interest considerations for the use of this spectrum. This difference is reflected in the record compiled by the Commission in GN Docket No. 18-122, which strongly favors retaining C-band spectrum for services in Alaska.

The solution to the C-Band puzzle in Alaska does not require moving incumbent services into a smaller portion of the band, or onto a different means of transmission. Rather, the critical services provided over the C-Band in Alaska, coupled with the unique Alaskan considerations when it comes to serving rural and remote customers, support ensuring the continuity of C-Band operations in Alaska. Such a solution should involve excluding the State of Alaska from any changes to the allocation of or services provided via the C-Band, including point-to-multipoint sharing, and incorporating the following protections for the current and future C-Band operations of incumbents: (1) commitments from satellite operators and MVPD programmers alike to maintain the status quo of Alaskan C-Band operations; (2) assurances of protections from interference; and (3) reimbursement to Alaska earth station operators for any impacts to their operations as a result of the reallocation of the C-Band services, regardless of whether that occurs exclusively in the Lower 48.

We thank you for the International Bureau's recent grant of several applications to license C-band satellite earth stations to serve rural and remote communities in Alaska. In order to preserve the benefits that these and other future C-band earth stations bring to the communities they serve, we ask that you retain the entire current allocation of this spectrum for Fixed Satellite Services in Alaska.

Sincerely,

Dan Sullivan

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United States Senator

Lisa Murkowski

United States Senator

Don Young

Congressman for All Alaska

Cc:

Honorable Michael O'Rielly

Honorable Brendan Carr

Honorable Jessica Rosenworcel Honorable Geoffrey Starks