

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Petition of General Communication, Inc. for)	WT Docket No. 16-209
Waiver of Certain Channelization and Other)	
Restrictions on Common Carrier Fixed)	
Point-to-Point Operations between 6425 and)	
7125 MHz)	
_____)	

COMMENTS OF THE ALASKA RURAL COALITION

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I. Introduction.

The Alaska Rural Coalition¹ (“ARC”) files its Comments in this proceeding pursuant to the Public Notice released by the Wireless Telecommunications Bureau (the “Bureau”) of the Federal Communications Commission (the “Commission”) on June 30, 2016² inviting comment on the petition filed by General Communication, Inc. (“GCI”) seeking waiver of certain channelization and other limitations in the Upper 6 GHz bands.³ The ARC generally supports efforts to utilize Alaska’s spectrum resources more efficiently, but the waiver under consideration may have unintended consequences for competing carriers. The scope and impact of the waiver are underdeveloped and warrant a closer look. To the extent the Bureau grants the waivers sought by GCI, the ARC respectfully requests that the waivers be granted on a carrier-neutral basis to encourage competition and network construction.

The ARC membership consists of most of the rate of return incumbent rural local exchange carriers (“RLECs”) in Alaska, all of whom serve some of the highest cost areas of the nation.⁴ ARC members are generally small, rural telephone companies and cooperatives that

¹ The ARC is composed of Adak Telephone Utility, Alaska Telephone Company, Arctic Slope Telephone Association Cooperative, Inc., Bettles Telephone, Inc., Bristol Bay Telephone Cooperative, Inc., Bush-Tell, Inc., Circle Telephone & Electric, LLC, City of Ketchikan dba Ketchikan Public Utilities, Copper Valley Telephone Cooperative, Cordova Telephone Cooperative, Inc., Interior Telephone Company, Inc., Matanuska Telephone Association, Inc., Mukluk Telephone Company, Inc., North Country Telephone Inc., Nushagak Electric and Telephone Company, Inc., OTZ Telephone Cooperative, Inc., and The Summit Telephone and Telegraph Company, Inc.

² *Wireless Telecommunications Bureau Seeks Comment on General Communication, Inc.’s Request for Waiver of Certain Requirements in the Upper 6 GHz Bands*, WT Docket No. 16-209, Public Notice, DA 16-744 (WTB rel. June 30, 2016).

³ *Petition of General Communication, Inc. for Waiver of Certain Channelization and Other Restrictions on Common Carrier Fixed Point-to-Point Operations between 6425 and 7125 MHz*, WT Docket No. 16-209, Amended Petition of General Communication, Inc. for Waiver of Certain Channelization and other Restrictions on Common Carrier Fixed Point-to-Point Operations between 6425 and 7125 MHz, before the FCC (May 3, 2016) (“*GCI Petition*”).

⁴ *See Connect America Fund*, WC Docket No. 10-90, Comments of the Alaska Rural Coalition, before the FCC (Dec. 22, 2014) at 2 (“The assumptions that apply to the Lower 48 cannot be easily or fairly applied to Alaska. The Commission must be cautious or it will impose requirements that will

serve tribal lands and endeavor to bring the highest quality of service possible to Alaskans.⁵ The low population density and high construction costs that GCI cites to support its Petition are equally applicable to ARC member companies.⁶

II. Microwave Middle Mile Common in Rural and Remote Alaska.

GCI's Waiver Petition raises an issue many Alaska carriers face, albeit in smaller scale and scope. The ARC supports the most efficient and economic use of spectrum to facilitate middle mile connections in areas where fiber backhaul facilities are too difficult and/or expensive to construct. For example, Nushagak Telephone Cooperative operates a microwave point-to-point path licensed at 6615 MHz between Dillingham and Clarks Point.⁷ Nushagak is in the process of expanding this microwave path to carry broadband internet. It is not economically feasible to construct a fiber connection in this location meaning access to spectrum in the 6 GHz band is critical for the reasons cited in GCI's Waiver Petition.⁸

overwhelm carriers attempting to provide broadband in the most challenging environment and foreclose the expansion of quality, robust service.”); *see also* Letter from T.W. Patch, Chairman, Regulatory Commission of Alaska to Marlene H. Dortch, Secretary, Federal Communications Commission, Connect America Fund, *et al.*, WC Docket No. 10-90, *et al.* (Filed Feb. 4, 2013) (“Our discussion touched on how Alaska’s lack of roads and electric grids as well as other factors such as extensive reliance on satellite make application of national models to Alaska’s service providers inappropriate. We also discussed how regulatory uncertainty is hampering Alaska’s carriers’ ability to invest and borrow the funds needed to move towards universal broadband.”).

⁵ *See* Auction 902 Tribal Mobility Fund Phase I, AU Docket No. 13-53, Comments of the Alaska Rural Coalition, before the FCC (May 10, 2013) at 4 (“*ARC Tribal Mobility Comments*”) (“The Commission has recognized that ‘infrastructure generally is less developed on Tribal lands, particularly in Alaska.’ The cost of deploying mobile services in these areas of Alaska will be considerably greater because providers in the state face significantly higher costs for both ongoing operations and construction than do providers in the rest of the nation.”).

⁶ *GCI Petition* at 3 (“Given the low population density, high infrastructure deployment costs, and low revenue, it is necessary to deploy communications infrastructure as efficiently as possible.”).

⁷ *See* Nushagak Telephone Cooperative call signs WQDB313 and WQDB314 for spectrum details.

⁸ *GCI Petition* at 4 (noting that microwave backhaul “has substantially improved broadband connectivity in rural Alaska by providing terrestrial service that supports not only consumer Internet service in rural communities, but also supports bandwidth-hungry, latency-sensitive services like interactive distance learning and telemedicine.”).

A. Many Alaska carriers share GCI's concerns about strained resources and increasing demand for backhaul capacity.

GCI seeks waivers of Commission rules to allow GCI to utilize the 6425-6525 MHz band for common carrier fixed point-to-point service, to use 60 MHz wide channels in the Upper 6 GHz band, and to use a uniform 60 MHz channelization scheme across the entire Upper 6 GHz band.⁹ The ARC supports these waiver requests if the Commission is willing to expand the relief to all Alaska carriers serving the most remote areas in the country. The ARC believes that excluding the three urban centers of Anchorage, Fairbanks, and Juneau will limit this waiver request to those areas of Alaska where fiber is prohibitively difficult to utilize. Creating an equal, competitive playing field serves the public interest for all Alaska consumers.

Like the ARC member companies, GCI relies on fiber when possible but the terrain and economic reality of Alaska makes this difficult-to-impossible in some areas.¹⁰ The Commission previously recognized that point-to-point microwave stations continue to be valuable backhaul solutions for Alaska providers.¹¹ In much of Alaska, carriers have no reasonable alternative to

⁹ *GCI Petition* at 12 (“GCI respectfully requests that the FCC waive the following rules with respect to the current TERRA microwave sites or planned sites directly connected to the TERRA network identified at Appendix A: (1) 47 C.F.R. § 101.101 to permit GCI to use the 6425-6525 MHz band for common carrier fixed point-to-point service (Part 101, Subparts C & I) to the frequency availability for 6425-6525 MHz; (2) 47 C.F.R. § 101.109(c) to allow GCI to use 60-MHz-wide channels in frequency bands 6425 to 6525 MHz, 6525 to 6875 MHz, and 6875 to 7125 MHz; and (3) 47 C.F.R. §§ 101.147(041) to allow GCI to use an efficient, uniform 60 MHz channelization scheme, including channels that span band boundaries between the 6425-6525 MHz, 6525-6875 MHz, and 6875-7125 MHz bands.”).

¹⁰ *GCI Petition* at 6 (“GCI relies on fiber where possible, but it is not feasible to bury fiber throughout much of [the] vast, inhospitable, and federally protected areas of western Alaska. While high-capacity fiber is often the technology of choice for core networks or dense urban environments, building fiber to all, or even most, Alaskan locations currently is logistically, technologically, operationally, and economically infeasible.”).

¹¹ *See City of Ketchikan dba Ketchikan Public Utilities, Application for a New Station in the Common Carrier Fixed Point-to-Point Microwave Service, Request for Waiver to Permit Fixed Operation in 6425-6525 MHz Band*, File No. 0005820273, Memorandum Opinion and Order, before the FCC (June 23, 2014) at 4 (“By granting these waivers, we allow Ketchikan to use microwave facilities as a backhaul solution. Such use can help facilitate the provision of advanced broadband and wireless services to the residents of Ketchikan.”).

point-to-point microwave solutions. For example, in 2014 the City of Ketchikan d/b/a Ketchikan Public Utilities (“KPU”) petitioned the Commission for waivers to build a point-to-point microwave link. KPU noted in its petition that the high cost of middle mile transport connections was a major factor in the price of internet service, and that building point-to-point microwave stations would allow it the ability to offer more affordable service to residents.

The benefit of flexibility offered by 60 MHz channels across the 6 GHz spectrum is well articulated by GCI.¹² The benefits are best shared by all carriers providing service in rural and remote Alaska. Although the ARC has some concerns about potential congestion resulting from the larger spectrum channels, as discussed below, the primary concern of the ARC is that any flexibility be offered to all carriers serving these areas so Alaska consumers can participate equally in the benefits that broadband delivers to rural communities.

B. Geographic Scope of GCI’s Waiver Petition Requires Clarity.

GCI’s Petition states that it limited the scope of its Petition to the areas served by TERRA, the GCI fiber and microwave network, to address potential congestion, interference, and other Commission concerns.¹³ The ARC believes some clarification may be warranted. The actual geographic scope of the requested waivers is unclear to the ARC. GCI references Western Alaska, but the network map supplied by GCI and available on its website suggests that the

¹² *GCI Petition* at 16 (“The smaller channelization of the existing band plans for 6525-6875 MHz and 6875-7125 MHz would require nine radios per bay, for the Upper 6 GHz band alone. The proposed plan would require nine radios for the Lower and Upper 6 GHz bands *combined*.”).

¹³ *GCI Petition* at 15 (“GCI’s waiver request is geographically limited to the rural portions of Alaska served by TERRA, while still providing GCI with the ability to make investments to accommodate future demand for TERRA service in additional rural villages. This geographic scope addresses potential congestion, interference, or other concerns that the Commission has voiced in other proceedings about wider channel bandwidths.”).

entire TERRA ring will be subject to the waivers.¹⁴ The TERRA network occupies a significant portion of Alaska. The ARC doesn't necessarily object to the broader application of the requested waiver, but the Commission should clearly articulate the geographic scope of the waiver. The ARC respectfully suggests that all portions of Alaska outside of the three urban centers of Anchorage, Fairbanks, and Juneau should be subject to the waivers if granted. The population density in these urban settings makes fiber backhaul more feasible and reduces the need for microwave service.

The ARC is concerned that if GCI's waiver request does not encompass all carriers serving Alaska outside the population centers of Anchorage, Fairbanks and Juneau there may both practical and competitive ramifications. GCI touts the benefit of utilizing the entire 6 GHz spectrum in the geographic area of the TERRA network. The ARC members serving in area adjacent to the TERRA network do utilize the upper 6 GHz band for the similar reasons GCI promotes in its waiver.¹⁵ There is some concern that GCI's waiver may have unintended competitive consequences for adjacent carriers. The Petition contains no discussion of potential competitive impacts, but simply states that it will not "disrupt any service providers in the market."¹⁶ Without further consideration and analysis, the ARC remains concerned that there

¹⁴ *Compare GCI Petition* at 6 ("GCI relies on fiber where possible, but it is not feasible to bury fiber throughout much of vast, inhospitable, and federally protected areas of western Alaska.") *with GCI Petition* at Appendix A (map of TERRA network).

¹⁵ *GCI Petition* at 10-11 ("GCI cannot increase microwave capacity by adding additional channels outside of the 6 GHz bands, including, for example, 11 GHz spectrum. Some towers in the TERRA backbone are already near their structural limits, and could not accommodate the weight of additional antennas, waveguides, ice shielding, ice accumulation, and wind loading. Thus, supplementing existing capacity with channels in entirely new bands would require GCI to rebuild from the ground up many of the towers of the TERRA backbone. Such a massive undertaking would make expanding TERRA capacity economically impossible given the small populations served.").

¹⁶ *GCI Petition* at 2.

may be unintended consequences for carriers who seek to expand existing microwave systems or construct new facilities near the TERRA network.

GCI contends that congestion is not an issue at this time because “GCI had identified no other operators in the Upper 6 GHz band near the TERRA backbone sites.”¹⁷ The ARC does not believe this assertion is entirely accurate and it disregards current use and future growth of microwave connections. In addition to the existing microwave connections used by Arctic Slope Telephone Association Cooperative, Nushagak Telephone Company, Bristol Bay Telephone Cooperative and OTZ Telephone Cooperative, there are other Alaska carriers that are investigating new licenses in the Upper 6 GHz band to provide similar service to that described by GCI. The ARC is concerned that without a statewide waiver, GCI may occupy the entirety of the 6 GHz spectrum and create the very congestion that it says is a non-issue. Even if the waivers are granted for all carriers, the ARC remains concerned that GCI’s more mature middle mile network could dominate the available spectrum.

III. Conclusion.

The ARC supports efforts that make the most efficient use of Alaska’s radio spectrum. GCI’s Petition, once expanded to all Alaska carriers serving areas outside of the urban centers, would allow carriers to build the most efficient point-to-point microwave operations in Alaska to date. The benefits that GCI argues that it will realize are equally applicable to the rest of Alaska’s carriers. The ARC urges the Commission to expand the geographic scope of the GCI Petition to all carriers serving rural and remote Alaska, and to grant the Petition so that all carriers may compete on an equal playing field.

¹⁷ *GCI Petition* at 15.

Respectfully submitted on this 15th day, July, 2016.

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