APPLICATION FOR SPECIAL TEMPORARY AUTHORITY

Pursuant to Section 25.120 of the Federal Communications Commission (the "FCC" or "Commission") rules, 47 C.F.R. §25.120, GCI Communication Corp. ("GCI") is seeking a 60-day special temporary authorization ("STA") to operate a temporary fixed satellite service ("FSS") earth station in the 3.7-4.2 and 5.925-6.425 GHz band (the "C-Band").[1] Specifically, GCI is seeking temporary authorization to operate a currently-licensed antenna associated with Call Sign E890566 (the "Station"), under modified parameters that will allow it to communicate with a new satellite, Call Sign S2947.[2] Because GCI is requesting an STA for a period not to exceed 60 days pursuant to 47 C.F.R. §25.120(3), and has filed a modification application to its regular authorization consistent with the request herein,[3] this STA application need not be placed on public notice and should be granted expeditiously pursuant to the rules. GCI's operation of

[1] GCI recognizes that there is a current freeze "on the filing of new or modification applications for [FSS] earth station licenses, receive-only earth station registrations, and fixed microwave licenses in the 3.7-4.2 GHz frequency band." Based on the text of the Public Notice, STA requests for FSS earth station licenses in the C-Band are not covered by the freeze. However, out of an abundance of caution, if this STA request is considered a filing prohibited by this freeze, GCI respectfully requests a waiver of the freeze, as a grant of this STA request would "serve the public interest and not undermine the objectives of the freeze." S*ee Temporary Freeze on Applications for New or Modified Fixed Satellite Service Earth Stations and Fixed Microwave Stations in the 3.7-4.2 GHz Band, 90 Day Window to File Applications for Earth Stations Currently Operating in 3.7-4.2 GHz Band*, Public Notice, 1, 3, DA 18-398 (rel. Apr. 19, 2018).

[2] In this application, GCI requests to extend the western azimuth limit of the antenna associated with Call Sign E890566 from 145W to 216W in order to be able to view a new satellite (H3e) necessary to manage the capacity associated with GCI's network. In addition, GCI requests to operate on the corrected coordinates of the earth station pursuant to those coordinates requested in the modification application. *See* IBFS File No. SES-MOD-20181030-03746.

[3] The modification application seeks additional modifications beyond extending the western azimuth limit. *See* IBFS File No. SES-MOD-20181030-03746. This application is currently pending.

this Station would not cause harmful interference into surrounding networks,[4] and as demonstrated below, there are extraordinary circumstances supporting the grant of these temporary operations which are in the public interest and any delay in the institution of these temporary operations would seriously prejudice the public interest.

Grant of this request for STA is necessary for GCI to continue providing reliable communications services, including critical telehealth services, to rural and remote hospitals and health clinics in Alaska. Specifically, GCI must free up capacity on its currently-used C-Band satellite in order to support necessary growth of existing telehealth circuits in Tribal communities and other remote Alaskan villages. This freed up capacity will result from moving the Station's traffic to a new C-Band satellite, H3e.[5] While GCI has filed a modification application to the Station that reflects in part the modifications requested herein, this application is currently pending[6] and GCI needs access to the new satellite (and hence, needs to be able to modify its

[4] In this STA, GCI is only requesting to extend the western azimuth limit of the Station's antenna and to operate on corrected coordinates consistent with its October 2018 request; it is not seeking to make any material changes (i.e., EIRP, EIRP density, emissions designator, etc.) to its current authorization.

[5] In addition, GCI is contemporaneously filing a separate STA request to move another FSS earth station, Call Sign E960388 for the same reason.

[6] GCI filed a modification application to extend the western arc limit of the antenna of the Station, among other modifications in October 2018. *See* IBFS File No. SES-MOD-20181030-03746. The modification application is currently pending, and was placed on Public Notice as Accepted for Filing on August 7, 2019. *See Public Notice* Report No. SES-02189 (rel. Aug. 7, 2019). Pursuant to the FCC's rules, action on the modification application cannot be taken prior to 30 days following the date of the Notice, which is September 6, 2019. *See* 47 U.S.C. §309(b). As a result GCI is filing this STA request during the pendency of the FCC's review of the modification application.

operations) in the near term – by September 3, 2019 – to meet commitments made to customers supported by the Rural Health Care Program.[7]

Here, "there are extraordinary circumstances requiring temporary operations in the public interest" and "delay in the institution of these temporary operations would seriously prejudice the public interest."[8] A grant of this STA would continue to allow GCI to provide critical health communications services to remote and rural health clinics in Alaska. GCI's services support the delivery of telemedicine services such as teleradiology, remote patient monitoring, medical network solutions, and live video-conferencing to customers in Alaska. GCI has witnessed firsthand the transformational benefits of telemedicine for health care delivery in Alaska. Telemedicine services improve healthcare in areas that traditionally have few physicians and even fewer medical specialists in a variety of medical fields, including audiology, cardiology, dental, family medicine, neurosurgery, ophthalmology, pediatrics, psychiatry, and women's health. In most instances, GCI's network is the only way that rural Alaskans may gain access to such specialists. For example, without telepsychiatry services, residents seeking psychiatric care in several remote villages would either have to wait for a sporadic visit from a traveling psychiatrist, or would have to travel vast distances – usually at a prohibitively high cost – to seek the medical help that they needed. Neither of these options would likely be possible during the harsh long Alaskan winter. GCI's network enables a patient to visit with a specialist remotely, via a remote village clinic, on their own schedule.

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[7] GCI has committed to provide the additional capacity for telehealth communications services by September 12, 2019. The modified parameters requested herein are necessary for GCI to meet this commitment. GCI is requesting a grant data of this STA no later than September 3, 2019 to allow it to take the necessary actions to modify its services by this deadline.

[8] 47 C.F.R. §25.120(b)(1).

The covered health clinics rely on the C-Band as the primary means of transmission for their communication needs. This is due in large part to the challenging nature of providing telecommunications services in Alaska. Such challenges include "its remoteness, lack of roads, challenges and costs associated with transporting fuel, lack of scalability per community, satellite and backhaul availability, extreme weather conditions, challenging topography, and short construction season."[9] GCI relies on the C-Band in order to provide its FSS operations, and has a very long history of providing C-Band satellite communications solutions in Alaska in innovative ways that advance the satellite technology space. Fiber, microwave operations and other satellite bands are not options for this service.

- Fiber is hundreds or thousands of miles away from most areas of Alaska due to the unique attributes of the State, including, extreme weather, government-related barriers, and the general topography of the Arctic.[10] The distance between many of GCI's C-Band earth stations and fiber headends is vast (e.g., hundreds of miles), and long fiber runs in Alaska are not feasible solutions. In many areas, such fiber would run over the Arctic tundra and would need to be safeguarded against damage caused by the complex and changing structure of permafrost,

[9] *Connect America Fund; Universal Service Reform – Mobility Fund; Connect America Fund - Alaska Plan*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 10139, 10162,¶ 72 (2016) ("*Alaska Plan R&O*") (citing *Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17829,¶ 507 (2011) ("*USF/ICC Transformation Order"*), *aff'd sub nom. FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014)).

[10] Much of the land in rural Alaska is protected by numerous federal and state laws that limit human activity, and thus preclude fiber builds.

which can range in thickness from a single meter to many hundreds of meters.[11] These areas may also require submarine fiber, which would have to run across hundreds of miles of open arctic ocean and would need to be safeguarded against additional elements, including ice and rough sea floors.

- While GCI relies on its TERRA microwave radio system throughout the state, it has found that such microwave systems are particularly susceptible to extreme weather in these remote and rural areas, such as the freezing and icing that occur during the Alaskan winter and spring months (roughly anywhere from September to June) and result in significant damage to the microwave radio antennas and wave guides, leading to link degradation and service outages.
- GCI uses the Ku-Band in areas where it can obtain the amount of capacity it needs. This is not case here. As a general matter, the currently available Ku- and Ka-band are not realistic alternative options due to (a) the limited lower link availability resulting from more challenging propagation conditions and higher link margins required for Ku- or Ka-band fading;[12] (b) the prohibitively high cost associated with replacing or upgrading ground segment equipment; and, (c) the lack of available Ku- or Ka-band satellites having satisfactory coverage over the State of Alaska – in other words, there is not enough capacity or coverage of Ku-band satellites to move all of GCI's C-Band services and there is minimal, if any, Ka-Band coverage in Alaska.

[11] In addition, uneven freezing and thawing at or near the surface can result in dramatic changes to landforms, such as ice wedges (i.e., growing cracks in the ground) and pingos (i.e., small hills that arise quickly due to subsurface pressures), which can damage buried fiber optic cable.

[12] For instance, weather characteristics such as rain, snow, or fog may cause signal fade on these satellite bands.

The substantial public service record of GCI indicates that the company is committed to providing service to consumers in Alaska. GCI has sought regular authority for the requested modifications to E890566. Because GCI does not want these services to be implicated during the pendency of this request, it is also requesting this STA. Continued service illustrates a "compelling reason" to expeditiously grant the requested STA, and would certainly be in the public interest.

FAA notification is not required for this earth station antenna as the proposed antenna structure does not exceed the imaginary surfaces delineated in 47 C.F.R. §17.7(b).[13]

[13] 47 C.F.R. §§ 17.7, 25.120.