

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
STA for Barrow earth station – E960388

1. Applicant

| | | | |
|------------|--------------------------|---------------|---------------------------|
| Name: | GCI Communication Corp. | Phone Number: | 907-868-5615 |
| DBA Name: | | Fax Number: | 907-868-9817 |
| Street: | 2550 Denali St, Ste 1000 | E-Mail: | gcilicensemanager@gci.com |
| City: | Anchorage | State: | AK |
| Country: | USA | Zipcode: | 99503 -2737 |
| Attention: | Ms Cynthia L Hall | | |

60 days with conditions
File # SES-STA-20190821-01086
Call Sign E960388 Grant Date 09/03/2019
(or other identifier)
Term Dates
From: 09/03/2019 To: 11/02/2019
Approved: Yannick



| | | | |
|---|--------------------------|--|----------------|
| 2. Contact | | | |
| Name: | Cindy Hall | Phone Number: | 907-868-5615 |
| Company: | GCI Communication Corp. | Fax Number: | 907-868-9817 |
| Street: | 2550 Denali St, Ste 1000 | E-Mail: | chall2@gci.com |
| City: | Anchorage | State: | AK |
| Country: | USA | Zipcode: | 99503 - 2737 |
| Attention: | | Relationship: | Same |
| <p>(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)</p> <p>3. Reference File Number or Submission ID</p> | | | |
| <p>4a. Is a fee submitted with this application?</p> <p><input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).</p> <p><input type="radio"/> Governmental Entity <input checked="" type="radio"/> Noncommercial educational licensee</p> <p><input type="radio"/> Other (please explain):</p> | | | |
| <p>4b. Fee Classification CGX - Fixed Satellite Transmit/Receive Earth Station</p> | | | |
| <p>5. Type Request</p> <p><input checked="" type="radio"/> Use Prior to Grant <input type="radio"/> Change Station Location <input type="radio"/> Other</p> | | | |
| <p>6. Requested Use Prior Date 09/03/2019</p> | | <p>8. Latitude (dd mm ss.s h) 71 16 17.2 N</p> | |
| <p>7. City Barrow</p> | | | |

| | |
|--|--|
| 9. State AK | 10. Longitude (dd mm ss.s h) 156 46 16.6 W |
| 11. Please supply any need attachments. | |
| Attachment 1: Attachment A | |
| Attachment 2: | |
| Attachment 3: | |
| 12. Description. (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) | |
| Point to point data network | |
| 13. By checking Yes, the undersigned certifies that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes. | |
| 14. Name of Person Signing Chris Mace | 15. Title of Person Signing VP, Network Services & Chief Engineer |
| WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503). | |

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PERM, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

Applicant: GCI Communication Corp
Call Sign: E960388
File No.: SES-STA-20190821-01086
Special Temporary Authority ("STA")

GCI Communication Corp. ("GCI") is granted Special Temporary Authorization for 60 days, beginning September 3, 2019, to operate its 9.1-meter fixed earth station antenna in Barrow, AK with the Horizons-3e (S2947) satellite at the 169° E. orbital location in the 3700-4200 MHz (space-to-Earth) and 5925-6425 MHz (Earth-to-space) frequency bands to continue providing critical telemedicine services to patrons of rural and remote hospitals and health clinics in Tribal communities and other remote Alaskan villages under the following conditions:

1. Operations shall comply the current eirp density limits currently authorized.
2. All operations shall be on an unprotected and non-harmful interference basis, GCI, shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference and must inform the Commission, in writing, immediately of such an event.
3. The licensee shall take all necessary measures to ensure that the antenna does not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 CFR 1.1307(b) and 1.1310 wherever such exposures might occur. Measures must be taken to ensure compliance with limits for both occupational/controlled exposure and for general population/uncontrolled exposure, as defined in these rule sections. Compliance can be accomplished in most cases by appropriate restrictions, such as fencing. Requirements for restrictions can be determined by predictions based on calculations, modeling, or by field measurements. The FCC's OET Bulletin 65 (available on-line at www.fcc.gov/oet/rfsafety) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alerting signs and protective equipment for workers.
4. Grant of this STA is without prejudice to any determination that the Commission may make regarding pending or future GCI applications.
5. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at GCI's risk.

This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. §0.261, and is effective upon release.



**GCI Communication Corp.
Application for Special Temporary Authority**

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 E960388 (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 will be filing a request to modify its regular authorization in the near-term,³ this STA application need not be placed on public notice and should be granted expeditiously pursuant to the rules. GCI’s operation of this Station would

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.” *See 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 9.15m antenna associated with Call Sign E960388 (antenna #1 on the existing license) from 145W to 194W in order to be able to view a new satellite (H3e) necessary to manage the capacity associated with GCI’s network.

³ As discussed above, GCI recognizes the current filing freeze on modification applications for FSS earth station licenses, and will be seeking a waiver of the freeze in connection with its filing of a modification application to E960388, demonstrating that waiver will serve the public interest and not undermine the objectives of the freeze.

**GCI Communication Corp.
Application for Special Temporary Authority**

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 is in the process of preparing a modification application to the Station's underlying license that will reflect the modification requested herein, GCI needs access to the new satellite (and hence, needs to be able to modify its operations) in the near term – by September 3, 2019 – to meet commitments made to customers supported by the Rural Health Care Program.⁶

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

⁴ GCI is only requesting to extend the western azimuth limit of one of the Station's antennas, 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 E890566 (*see also* SES-MOD-20181030-03746) for the same reason.

⁶ 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 date of this STA no later than September 3, 2019 to allow it to take the necessary actions to modify its services by this deadline.

**GCI Communication Corp.
Application for Special Temporary Authority**

public interest.”⁷ 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 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.

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

⁷ 47 C.F.R. §25.120(b)(1).

**GCI Communication Corp.
Application for Special Temporary Authority**

construction season.”⁸ 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.⁹ 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, which can range in thickness from a single meter to many hundreds of meters.¹⁰ 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

⁸ *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)).

⁹ Much of the land in rural Alaska is protected by numerous federal and state laws that limit human activity, and thus preclude fiber builds.

¹⁰ 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.

**GCI Communication Corp.
Application for Special Temporary Authority**

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;¹¹ (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.

The substantial public service record of GCI indicates that the company is committed to providing service to consumers in Alaska. GCI will be seeking regular authority for the requested modifications to E960388. However, 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.

In addition, GCI’s proposed modification to the earth station antenna as detailed in this application will not require construction of one or more earth station antennas or alteration of the

¹¹ For instance, weather characteristics such as rain, snow, or fog may cause signal fade on these satellite bands.

GCI Communication Corp.
Application for Special Temporary Authority

overall height of one or more existing earth station antenna structures, therefore FAA notification is not required.¹²

¹² See 47 C.F.R. § 17.7.