

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

Application of Alaska Communications) Call Sign: E170205
Internet LLC for 60-Day Special Temporary)
Authorization (“STA”)) File No. SES-STA-_____

APPLICATION FOR SPECIAL TEMPORARY AUTHORIZATION

Pursuant to Section 25.120 of the rules of the Federal Communications Commission (the “FCC” or “Commission”),¹ Alaska Communications Internet LLC (“Alaska Communications Internet”) respectfully seeks 60-day special temporary authorization (“STA”), commencing on Monday March 30, 2020, to continue to operate seven (7) remote earth station sites as part of its existing C-band very small aperture terminal (“VSAT”) network.² The proposed operations hereunder are identical to Alaska Communications Internet’s previously authorized STA operations that erroneously lapsed,³ and it seeks to effectively extend the *Seven Site STA* here. Alaska Communications Internet will operate these additional sites to: (1) support the Kodiak Area Native Association (“KANA”), a 501(c)(3) non-profit corporation providing health care and community services to the Koniag region of Alaska; (2) provide middle mile backhaul services to support businesses and residents in the community of Yakutat; (3) provide telecommunications transport and signaling management for the Bristol Bay Telephone Cooperative (“BBTC”), a provider of local and long-distance telephone, mobile wireless, cable television, and internet access services, including services supported by the FCC’s Lifeline program for low-income customers, in the

¹ 47 C.F.R. § 25.120.

² See Alaska Communications Internet LLC, File No. SES-LIC-20171116-01257, Call Sign E170205, and subsequent modification and amendment applications (“*ACI Network License*”).

³ See Alaska Communications Internet LLC, File No. SES-STA-20191212-01706, Call Sign E170205 (“*Seven Site STA*”) (expired on March 14, 2020).

Bristol Bay Borough of Alaska; and (4) serve an additional central office of OTZ Telephone Cooperative, Inc., Telephone Cooperative Inc. (“OTZ”), an incumbent local exchange carrier (“ILEC”) providing local and long-distance telephone, mobile wireless, and internet access services in native villages throughout the Northwest Arctic Borough of Alaska, to complement the service it is already providing to other OTZ central offices under a current grant of Special Temporary Authority.⁴ Consistent with the *ACI Network License*, Alaska Communications Internet seeks to operate these new sites in portions on the C-band at fixed locations in Alaska while communicating with the EUTELSAT 115WB satellite located at the 114.9° W.L. orbital position. Alaska Communications Internet also intends to file an application to modify the *ACI Network License* to operate these sites as part of its C-band VSAT network on a regular basis.

Grant of this STA will serve the public interest because it will enable Alaska Communications Internet to provide KANA with reliable C-band satellite broadband connectivity for four village clinics located in remote Alaska Bush communities.⁵ KANA plays a vital role in the well-being of the communities that it serves and the village clinics provide residents with diverse wellness services, including medical care and mental health and substance abuse support. Moreover, this STA will help to improve the resources for KANA’s Community Health Aide

⁴ See Alaska Communications Internet LLC, File No. SES-STA-20190809-01040, Call Sign E170205 (“*OTZ STA*”). OTZ is a member-owned cooperative serving remote Tribal villages in the Alaska bush. All OTZ Board members are Inupiat Eskimo and the majority of OTZ staff are Alaska native, see <http://otz.net/>.

⁵ Unlike Alaska’s three largest population centers, and the surrounding rural communities, Alaska Bush communities are isolated geographically from infrastructure resources commonly available elsewhere in the state, and the nation as a whole. Most Bush communities cannot be accessed by road, nor are they connected to the state’s power grid. To reach these communities, people, as well as goods and services, must arrive by plane, barge, snow machine, all-terrain vehicle, or other off-road transportation means. Communications services in these communities generally must rely on satellite or terrestrial point-to-point microwave transport links to Anchorage, Fairbanks, or Juneau.

Program (“CHAP”), an initiative that trains and employs local residents to become healthcare providers in their community. In addition to the KANA clinic locations, this STA will allow Alaska Communications Internet to begin providing middle mile backhaul support for the provisioning of broadband and internet services to the community of Yakutat, where terrestrial fiber connectivity is unavailable,⁶ as well as to provide BBTC with telecommunications transport and signaling, which will directly help maintain and improve voice and broadband services for local residents, including low-income consumers. Finally, grant of this STA will enable Alaska Communications Internet to provide OTZ with more comprehensive C-band satellite backhaul support by also servicing its Kobuk office with transport connectivity to improve broadband and other communications services to residents, local businesses, schools and libraries. In general, under this STA, Alaska Communications Internet will provide critical telecommunications connectivity in extremely remote areas of the Alaska bush to help bridge the digital divide in some of the nation’s most isolated communities.

I. Background

Alaska Communications Internet is an affiliate of Alaska Communications Systems Group, Inc. (“Alaska Communications”), a publicly-traded company that, through its subsidiaries, provides terrestrial wireline telecommunications and broadband-enabled services throughout Alaska as the largest incumbent local exchange carrier in the state.⁷ Alaska Communications

⁶ As discussed in Section III.A below, the closest fiber landing station to the Yakutat site is in Valdez, Alaska, approximately 250 miles away in a straight line, *see* <https://www.submarinecablenet.com/#/landing-point/valdez-ak-united-states>.

⁷ The incumbent local exchange carrier (“ILEC”) subsidiaries of Alaska Communications are: ACS of Anchorage, LLC; ACS of Fairbanks, LLC; ACS of Alaska, LLC; and ACS of the Northland, LLC; *see also* ACS Long Distance, Inc., File Nos. ITC-214-19960612-00248, ITC-T/C-20050822-00382, ITC-T/C-20040414-00190 (International Section 214 authorization).

Internet provides essential broadband and voice-over-Internet Protocol (“VoIP”) services to enterprise, business, educational, health care, and residential customers throughout the state.

The *ACI Network License* authorizes Alaska Communications Internet to operate a network of C-band satellite earth stations used to meet the critical communications needs of a diverse group of users in remote locations in Alaska, including Alaska Native corporations, schools and libraries supported by the Commission’s Schools and Libraries Universal Service Support Mechanism (“E-rate”), rural health care providers supported by the Commission’s Rural Health Care Universal Service Support mechanism, and commercial mining, fishing, and seafood canning businesses, as well as to provide telephone and broadband communications backhaul services connecting telephone central offices operated by Alaskan small and rural telephone cooperatives.

Alaska Communications Internet attaches as an Exhibit to this STA a *pro forma* FCC Form 312 Schedule B and Technical Appendix showing the details of its proposed earth station operations at each site. Those documents provide relevant information relating to the earth station operating parameters, performance information, radiation hazard analyses and frequency coordination.

II. Discussion

This STA request seeks authority to operate seven (7) remote earth station sites in Alaska to communicate with the network hub operated by Alaska Communications Internet under the *ACI Network License* via the EUTELSAT 115WB satellite in the C-band.

A. New Site Locations

Alaska Communications Internet seeks to operate the following seven sites as part of its C-band VSAT network in Alaska under this STA:

The Kodiak Area Native Association (“KANA”) Sites:

- KANA Akhiok

General Dynamics Prodelin Model 1241 (2.4-meter)
(geographic coordinates: 56° 56' 43.67" N, 154° 10' 26.99" W)

- KANA Larsen Bay
General Dynamics Prodelin Model 1241 (2.4-meter)
(geographic coordinates: 57° 32' 11.34" N, 153° 58' 44.81" W)
- KANA Old Harbor
General Dynamics Prodelin Model 1241 (2.4-meter)
(geographic coordinates: 57° 12' 48.71" N, 153° 17' 0.68" W)
- KANA Ouzinkie
General Dynamics Prodelin Model 1241 (2.4-meter)
(geographic coordinates: 57° 55' 28.30" N, 152° 29' 58.29" W)

The Yakutat Site:

- Yakutat Community
General Dynamics Prodelin Model 1386 (3.8-meter)
(geographic coordinates: 59° 32' 23.19" N, 139° 44' 12.92" W)

The Kobuk Site:

- OTZ Kobuk
General Dynamics Prodelin Model 1241 (2.4-meter)
(geographic coordinates: 66° 54' 27.3" N, 156° 53' 1.0" W)

The BBTC Site:

- BBTC 8 Mile
General Dynamics Prodelin Model 1241 (2.4-meter)
(geographic coordinates: 58° 43' 41.0" N, 156° 48' 59.2" W)

At the KANA, Kobuk and BBTC Sites, Alaska Communications Internet will operate an identical 2.4m VSAT earth station that is authorized in the *ACI Network License* for similar fixed C-band operations and is on the Commission's Non-Routine Antenna List.⁸ At the Yakutat Site, Alaska communications Internet will operate a 3.8m VSAT that is a technically identical variant

⁸ See Approved Non-Routine Earth Station Antennas, <https://www.fcc.gov/approved-non-routine-earth-station-antennas>; e.g., Harris Corporation, File No. SES-LIC-20060302-00342, Call Sign E060075.

of a previously-licensed VSAT earth station.⁹ Although the 2.4m and 3.8m earth stations do not comply with the gain mask in Section 25.209 of the Commission’s rules, Alaska Communications Internet demonstrates in the incorporated Schedule B that it will operate the VSATs at maximum ESD levels below those currently authorized in the *ACI Network License* and in compliance with the ESD mask set forth in Section 25.218(d) of the Commission’s rules.¹⁰

At each site, the earth station will be mounted on a previously installed pole or other existing structure in an area inaccessible to the general public. Their planned locations are not among any “districts, sites, buildings, structures or objects, significant in American history, architecture, archeology, engineering or culture, that are listed, or are eligible for listing, in the National Register of Historic Places,”¹¹ and thus they fall within the exemptions of Section 1.1306(a)-(b) and Note 1 to that rule.¹² Accordingly, no environmental assessment is required as part of this application because each proposed site is categorically exempt under Section 1.1306 of the Commission’s rules, 47 C.F.R. § 1.1306.

B. Frequency Coordination

Alaska Communications Internet engaged Micronet Communications, Inc. (“Micronet”) to perform frequency coordination in support of this STA request, which was completed for all sites on or before November 26, 2019. Pursuant to Sections 25.115(c)(2)(ii) and 25.203 of the

⁹ The General Dynamics Prodelin Antenna Model 1386 is a technically identical variant of the previously licensed Prodelin 1383. Alaska Communications Internet will operate this earth station at a maximum EIRP spectral density (“ESD”) level lower than those previously authorized by the Commission. *See* Approved Non-Routine Earth Station Antennas.

¹⁰ *See* 47 C.F.R. § 25.218(d).

¹¹ 47 C.F.R. § 1.1307(a)(4).

¹² *See* 47 C.F.R. § 1.1306, Note 1 (“The provisions of §1.1307(a) requiring the preparation of EAs do not encompass the mounting of antenna(s) and associated equipment (such as wiring, cabling, cabinets, or backup-power), on or in an existing building, or on an antenna tower or other man-made structure, unless §1.1307(a)(4) is applicable.”).

Commission's rules, 47 C.F.R. §§ 25.115(c)(2)(ii) and 25.203, Micronet has conducted a coordination analysis on behalf of Alaska Communications Internet that considers all existing, proposed, and prior coordinated microwave facilities within the contours of the proposed earth stations.

As demonstrated in the attached frequency coordination reports, as coordinated and limited,¹³ there is no potential for interference into other users of the C-band spectrum sought herein by Alaska Communications Internet. Moreover, Micronet received no objections in response to its Prior Coordination Notices, and Alaska Communications Internet currently operates its network with no reported cases of interference. Alaska Communications Internet will coordinate any additional hub or remote operations prior to bringing them into use as part of the C-band VSAT network.

C. The C-Band Temporary Freeze Public Notice

Alaska Communications Internet acknowledges the Commission's Public Notice placing a temporary freeze on the filing of all new or modification applications for earth stations in the 3.7-4.2 GHz band, effective as of April 19, 2018.¹⁴ The *Temporary Freeze Public Notice* does not include a freeze on requests for special temporary authority for short-term operations, and thus the instant request is outside the scope of the freeze. Furthermore, grant of this STA will

¹³ To prevent interference to nearby terrestrial microwave operations, Alaska Communications Internet will limit its transmit operations at the Old Harbor, Akhiok and Larsen Bay sites (*see* Frequency Coordination Reports and Schedule B).

¹⁴ *See* Public Notice, 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 the 3.7-4.2 GHz Band, DA 18-398 (rel. on April 19, 2018) ("*Temporary Freeze Public Notice*"). *See also*, Public Notice, GN Docket Nos. 17-183, 18-122, "International Bureau Announces 90-Day Extension of Filing Window, to October 17, 2018, to File Applications for Earth Stations Currently Operating in 3.7-4.2 GHz Band; Filing Options for Operators with Multiple Earth Station Antennas," DA 18-639 (rel. Jun. 21, 2018).

strongly serve the public interest by enabling critical broadband services and support for remote Alaska Bush operations, where terrestrial connectivity is mostly unavailable.

The Commission recently adopted an Order terminating the freeze in Alaska, effective upon publication of the Order in the *Federal Register*.¹⁵ Alaska Communications Internet intends to file request for regular authority to operate at these sites as part of the network licensed under its existing *ACI Network License* as soon as practicable after that termination of the freeze takes effect.

III. STA Request & Public Interest Considerations

Section 25.120(a) provides that an STA request should be filed at least three business days prior to commence of proposed operations. Here, Alaska Communications Internet has timely filed this 60-day STA request so that the Commission may permit operations by Monday, March 30, 2020. Moreover, Section 25.120(b)(2) states that the Commission may grant a temporary authorization for up to 60 days if the STA request has not been placed on public notice and the applicant plans to file a request for regular authority for the service. This STA request will ensure Alaska Communications Internet has appropriate authority during the Commission's review of Alaska Communications Internet's forthcoming application for long-term regular authority to serve these sites following termination of the freeze.

Grant of this 60-day STA will strongly serve the public interest by allowing Alaska Communications Internet to immediately begin supporting Yakutat with a back-up middle mile connectivity option that will ensure no lapse in critical broadband and other communications services to residents and local businesses, as well as begin provisioning services to the village clinics of KANA, which will contribute to the regional well-being of the community by helping

¹⁵ *Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, GN Docket No. 18-122, Report and Order and Order of Proposed Modification, FCC 20-22 (rel. Mar. 3, 2020), at ¶ 149.

to improve access to resources, materials and opportunities made available to these important village community centers. Finally, by providing backhaul services for the Kobuk site, Alaska Communications Internet will further support OTZ, an ILEC that plays a vital role in the communities that it serves and provides critical telecommunications connectivity in extremely remote areas of the Alaska bush.

A. Shortcomings of Terrestrial Alternatives

Yakutat is a small community located in northwest Alaska, with no existing terrestrial fiber connectivity. Moreover, the closest fiber landing station is in Valdez, Alaska, which is approximately 250 miles away in a straight line. To reach that point would require, in addition to terrestrial fiber construction, substantial deployment of undersea fiber optic cable and the associated cable landing stations, with attendant impacts on protected national and state parks along the path.¹⁶ Although Yakutat is currently supported by a legacy satellite middle-mile service, the existing providers have no capacity to add new services, making this application from Alaska Communications Internet critical to ensure continued availability of broadband

¹⁶ For a detailed discussion of the challenges of constructing these facilities, *see* Brian “Butch” Webb and Zachary Casey, “Shore Approaches for Fiber Optic Cables in Arctic Construction,” *Underground Construction* (Mar. 2017) (discussing the specialized horizontal directional drilling (“HDD”) techniques required in the Arctic, because “the known risk from deep ice scour in shallow water would require burial depths that are unachievable with standard methods. Additionally, the large volume of material removed and the consequent stockpiling of the spoil presents an environmental problem in the Arctic that is not acceptable. The HDD technique eliminates this problem and can extend the shore approach further out to sea without the need for any sea bottom plowing or excavation of fragile arctic coastline.”), *available at*: <https://ucononline.com/magazine/2017/march-2017-vol-72-no-3/features/shore-approaches-for-fiber-optics-cable-in-arctic-conditions>; Environmental Assessment, TERRA Southwest Broadband Telecommunications Project (April 2011) (discussing logistical and environmental challenges of constructing telecommunications facilities in southwest Alaska and rejecting a 100% fiber alternative proposal), *available at*: <https://www.gc.noaa.gov/documents/alaska-eis.pdf>.

services to community anchor institutions, including the local healthcare provider, as well as residents and businesses in the community.

Regarding the KANA Sites, while Kodiak Island is served by submarine fiber optic cable, the presence of that connection does not alleviate the need for C-band satellite service. None of the KANA sites are accessible from the existing cable landing station at Kodiak. Ouzinkie is located on Spruce Island, across approximately 10 miles across open water from Kodiak. Old Harbor, Larsen Bay, and Akhiok are between 50 and 90 miles in a straight line from Kodiak, with no road access to bridge the rough terrain and wilderness separating these points. Construction of these fiber optic connections to the village central offices covered by this STA request would be technically and logistically infeasible and economically prohibitive. The telecommunications industry has not developed any technology or techniques that support the economic deployment of fiber over vast distances of roadless wilderness and open ocean to reach such small communities. Moreover, while these sites are connected to Kodiak by point-to-point microwave links, the microwave system is not sufficiently reliable to meet the needs of the KANA healthcare clinics that Alaska Communications serves in these communities. Therefore, the satellite service proposed here will provide critically needed backup connectivity to ensure patient safety and access to necessary care.

The BBTC 8 Mile Site is located in the vicinity of the route taken by the microwave portion of the TERRA system, operated by GCI. The TERRA microwave network represents the only source of terrestrial connectivity in the area, but TERRA is not a viable terrestrial transport alternative for this site. As discussed in more detail in the *ACI Modification Application*, the microwave portion of the TERRA system is congested, oversubscribed, and unreliable. Based on Alaska Communications Internet direct experience, the connections are unstable, and do not

consistently deliver the full bandwidth called for in the company's service contract with GCI. Currently, as a result of these service quality issues, Alaska Communications does not, and cannot in good faith, use TERRA connectivity to support primary service to its customers. Moreover, the cost of the necessary capacity on TERRA would far exceed that of equivalent satellite bandwidth for this location.

Finally, regarding the OTZ Kobuk site, the closest fiber connectivity is at the Quintillion's submarine cable landing station in Kotzebue, Alaska, which is over 150 miles away in a straight line. Thus, like the KANA sites, the distant Kotzebue landing station does not alleviate the need for C-band satellite service. There is no road access to bridge the rough terrain and wilderness separating these points with terrestrial transport facilities, and the cost of doing so would be prohibitive.¹⁷

B. Advantages of C-Band Satellite Platform

The advantages of C-band satellite service as compared to other satellite bands, are well-documented before the Commission. In its filings in the Commission's *Expanding Flexible Use of the 3.7 GHz to 4.2 GHz Band* docket, for example, Alaska Communications has detailed the superior performance of C-band at Alaska's high northerly latitudes, particularly in the poor

¹⁷ The Commission has previously taken note of the unusual case of the Alaska Bush, where terrestrial connectivity is more expensive than equivalent satellite bandwidth. *See Promoting Telehealth in Rural America*, WC Docket No. 17-310, Report & Order, FCC 19-78, 34 FCC Rcd 7335 (2019), at ¶ 96 (“[I]n Alaska for funding year 2017, health care providers reported, on the FCC Form 466, rural rates ranging from \$30,000 to \$40,500 for a 10 Mbps satellite service per month. In comparison, rural rates for a terrestrial-based 10 Mbps MPLS service in Alaska, in many instances, were between \$60,000 and \$75,000 per month.”), *appeal pending sub. nom GCI Communication Corp. v. FCC*, No. 19-1217 (D.C. Cir., filed Oct. 21, 2019).

weather conditions and heavy precipitation that are all too common in the state.¹⁸ As Alaska

Communications explained in these filings:

- C-band satellite coverage is plentiful in Alaska, as a result of the large footprint offered by C-band satellite beams. Ku-band and Ka-band satellites often employ spot beams that are targeted to more economically important markets, such as large cities in the lower 48 states or transoceanic transport corridors. In higher frequency bands, a spot beam may be aimed toward Anchorage at best, with any additional coverage merely incidental to that target.¹⁹
- C-band frequencies support superior performance at the low elevation angles required as a result of Alaska's high northerly latitude, where earth station antennae often must be pointed lower than 10 degrees above the horizon.²⁰
- C-band frequencies suffer far less attenuation from poor weather conditions ("rain fade") and other obstructions than services that rely on Ku-, Ka-, or other higher bands. The low elevation angles required in Alaska make satellite service more sensitive to these attenuation issues, even from distant precipitation occurring along the line of sight to the satellite, than locations where the satellite is higher overhead.²¹

Given the state's extreme northerly latitudes and harsh weather, the C-band thus offers better performance, availability, and coverage than other satellite spectrum bands, making it far superior to other spectrum for serving customers in Alaska.²² Over much of the year, dangerous

¹⁸ See Alaska Communications Internet, LLC, Section 1.65 Letter, File No. SES-MOD-20180626-01472 (filed July 9, 2019), at 1-2; *Expanding Flexible Use of the 3.7 GHz to 4.2 GHz Band*, GN Docket No. 18-122, *Ex Parte* Letter from Richard R. Cameron, Counsel to Alaska Communications (filed June 21, 2019), at 1; *Expanding Flexible Use of the 3.7 GHz to 4.2 GHz Band*, GN Docket No. 18-122, Comments of Alaska Communications Internet, LLC (filed Oct. 29, 2018), at 8-11 ("Alaska Communications C-Band Comments").

¹⁹ See Alaska Communications C-Band Comments at 8-9 (*citing* ViaSat, Inc., Call Sign E110015, SES-LIC-20110211-00150, "FCC International Bureau Presentation" (Apr. 11, 2018), at 9 (ViaSat-1 Ka-band spot beam covering Anchorage), *available at*: https://licensing.fcc.gov/myibfs/download.do?attachment_key=910492.

²⁰ *Id.* at 9.

²¹ *Id.* at 11.

²² See *Alaska Communications Internet, LLC Request for Waiver of the Temporary Freeze on Applications for New or Modified Fixed Satellite Service Earth Stations in the 3.7-4.2 GHz Band*, IBFS File No. SES-MOD-20180626-01472, Call Sign: E170205, Order, DA 19-726, 34 FCC Rcd 6429 (Int. Bur. 2019), at ¶ 5.

and unpredictable conditions make it difficult at best for Alaska Communications network technicians to reach remote customer sites, making such service reliability a paramount concern.

Reliable communications are particularly important in the case of local health and wellness clinics and community services centers, including those that will be served using the earth stations proposed in this application. More broadly, Alaska Communications' customers, which include a broad array of rural health care providers, the Federal Aviation Administration, other federal and state government entities, public safety first responders, Alaska native-owned economic development enterprises, among others, are well aware that C-band services are consistently more stable and perform more reliably than Ku- or Ka-band alternatives. As a result, these customers routinely insist that their services be provisioned using C-band connectivity and will specifically choose C-band services over other options.

Grant of this STA request will allow Alaska Communications Internet to further expand its network, create an additional competitive alternative for customers in the Alaska bush, an undeserved area with little access to telecommunications connectivity. Disproportionately, bush villages in Alaska are home to vulnerable communities of Alaska Natives, for whom equal opportunities offered by broadband are particularly critical. Grant of this STA request will help improve the competitive landscape in the Alaska bush and contribute to the regional well-being of the Northwest Arctic and Bristol Bay Boroughs of Alaska by bridging the digital divide and helping to improve access to resources, materials and opportunities made available by broadband connectivity.

IV. Conclusion

Based on the foregoing, Alaska Communications Internet requests that the Commission grant authority to Alaska Communications Internet to operate the seven additional remote sites identified herein as part of its C-band VSAT network in Alaska for a period of 60 days.