

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

In the Matter of

Application of Alaska Communications	)	Call Sign: E170205
Internet LLC to Modify its C-Band Very	)	
Small Aperture Terminal Network License	)	File No. SES-MOD-_____

**APPLICATION TO MODIFY C-BAND VSAT BLANKET LICENSE**

Pursuant to Section 25.117 of the rules of the Federal Communications Commission (the “FCC” or “Commission”), 47 C.F.R. § 25.117, Alaska Communications Internet LLC (“Alaska Communications Internet”) files this application (the “Application”) to modify its C-band very small aperture terminal (“VSAT”) network blanket license, Call Sign E170205 (the “License”),<sup>1</sup> by adding eleven (11) additional earth station sites (the “Sites”) to its authorized network.<sup>2</sup> The Sites will support voice and broadband services to diverse customers in remote and inaccessible areas of Alaska that are unserved or underserved by terrestrial telecommunications transport networks. As with the sites previously authorized under the License, Alaska Communications Internet seeks to perform these new operations in portions of the C-band at fixed locations in Alaska while initially communicating with the EUTELSAT 115WB satellite located at the 114.9° W.L. orbital position.

Alaska Communications Internet seeks to operate the 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

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<sup>1</sup> See Alaska Communications Internet LLC, File No. SES-LIC-20171116-01257, Call Sign E170205, and subsequent modification and amendment applications.

<sup>2</sup> Alaska Communications Internet is concurrently withdrawing its pending modification application for near identical operations (*see* Alaska Communications Internet LLC, File No. SES-MOD-20200521-00555, Call Sign E170205). In the interest of administrative convenience and completeness, with this updated application, Alaska Communications Internet adds two additional sites and updates the power levels for one previously included site (Red Dog Mine).

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 Bristol Bay Borough of Alaska; (4) serve additional central offices 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;<sup>3</sup> (5) support Silver Bay Seafood, LLC (“Silver Bay Seafood”), an integrated processor of frozen salmon, herring and squid products for U.S. domestic and export markets;<sup>4</sup> (6) support Teck Resources Limited (“Teck Resources”) to deliver business critical broadband services to support its zinc mining operations in partnership NANA Regional Corporation, Inc. – an Alaska Native corporation created pursuant to the Alaska Native Claims Settlement Act (“ANCSA”);<sup>5</sup> and (7) support the Native Village of Hooper Bay (“Hooper Bay”) to improve network resiliency and survivability of broadband facilities in a project funded by a Coronavirus Aid, Relief, and Economic Security Act (“CARES Act”) grant.<sup>6</sup>

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<sup>3</sup> Alaska Communications Internet supports the KANA, Yakutat, BBTC and OTZ Sites under special temporary authority (*see* File Nos. SES-STA-20191212-01706 and SES-STA-20200326-00337 (pending)) and currently provides service to other OTZ and Silver Bay sites under the License. Alaska Communications Internet was also recently granted special temporary authorization to support the new OTZ Shungnak site, *See* File No. SES-STA-20201019-01139.

<sup>4</sup> Alaska Communications Internet was granted special temporary authorization to support the new Silver Bay site, *see* File No. SES-STA-20200211-00153 and SES-STA-20200707-00720 (pending).

<sup>5</sup> Alaska Communications Internet was granted special temporary authorization to support the Red Dog Mine site, *see* File No. SES-STA-20201014-01125.

<sup>6</sup> Alaska Communications Internet was granted special temporary authorization to support the Hooper Bay site, *see* File No. SES-STA-20201124-01268.

Grant of this modification application 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. 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 application will help to improve the resources for KANA's Community Health Aide 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 application will allow Alaska Communications Internet to provide long-term middle mile backhaul support for the provisioning of broadband and internet services to the community of Yakutat, where terrestrial fiber connectivity is unavailable,<sup>7</sup> 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. Alaska Communications Internet will also be able to provide OTZ with more comprehensive C-band satellite backhaul support by also servicing its Kobuk and Shungnak offices with transport connectivity to improve broadband and other communications services to residents, local businesses, schools and libraries.

A grant of this application will also enable Alaska Communications Internet to deliver critically needed broadband services to support Silver Bay Seafood. As one of the largest seafood companies in Alaska, Silver Bay Seafood needs reliable broadband services to support its operations, management and personnel, manage logistics, coordinate shipments, establish a solid

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<sup>7</sup> As discussed in the attached waiver request, the closest fiber landing station to the Yakutat site is in Valdez, Alaska, approximately 250 miles away in a straight line, *see* <https://www.submarineablemap.com/#/landing-point/valdez-ak-united-states>.

fish buying system, and keep its employees in Naknek connected to their families and the larger world, especially while the COVID-19 pandemic restricts and complicates opportunities for travel and in-person meetings.

This application will also further assist Alaska Communication Internet to provide reliable connectivity services to support logistics and the day-to-day operations at one of the world's largest zinc reserves for Teck, a leader in indigenous hire for generations of local Alaska Bush community residents.

Finally, grant of this STA will serve the public interest because it will enable Alaska Communications Internet to provide Hooper Bay with reliable and upgraded C-band satellite backhaul connectivity and improved network resilience pursuant to a CARES Act grant and improve the broadband experience of the village.

In general, with this modification, Alaska Communications Internet will be able to provide expanded 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.<sup>8</sup>

## **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

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<sup>8</sup> 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.

Alaska as the largest incumbent local exchange carrier in the state.<sup>9</sup> Alaska Communications Internet provides essential broadband and voice-over-Internet Protocol (“VoIP”) services to enterprise, business, educational, health care, and residential customers throughout the state.

The 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.

In the FCC Form 312 Schedule B and Technical Appendix, Alaska Communications Internet provides relevant information relating to the proposed operations at each new Site, including earth station operating parameters and frequency coordination reports. Those documents provide relevant information relating to the earth stations operating parameters and performance data, radiation hazard analyses and frequency coordination reports.

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<sup>9</sup> 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).

## **II. Discussion**

This application seeks authority to modify the License, as discussed below.

### **A. New Site Locations and Terminals**

Alaska Communications Internet seeks to add the following eleven (11) Sites to the License, and proposes to operate a C-band satellite earth station at each Site that will communicate via the EUTELSAT 115WB satellite with the Alaska Communications Internet network hub:

#### **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 OTZ Sites:**

- OTZ Kobuk  
General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 66° 54' 27.3" N, 156° 53' 1.0" W)
- OTZ Shungnak  
General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 66° 53' 16.8" N, 157° 8' 18.9" 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)

**The Yakutat Site:**

- Yakutat Community  
General Dynamics Prodelin Model 1386 (3.8-meter)<sup>10</sup>  
(geographic coordinates: 59° 32' 23.19" N, 139° 44' 12.92" W)

**The Silver Bay Naknek Site:**

- Silver Bay – Naknek  
General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 58° 44' 41.4" N, 156° 57' 14.4" W)

**The Red Dog Mine Site:**

- Red Dog Mine  
General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 67° 34' 39.78" N, 164° 3' 27.72" W)

**The Hooper Bay Site:**

- Hooper Bay  
General Dynamics Model 1385 (3.8-meter)  
(geographic coordinates: 61° 31' 40.0" N, 166° 6' 22.5" W)

Except for the Yakutat and Hooper Bay Sites, each will use a 2.4-meter General Dynamics Prodelin VSAT earth station that is electrically identical to one appears on the Commission's Non-Routine Antenna List and has been previously authorized for similar fixed C-band operations,<sup>11</sup> including for other sites appearing in this License. Although these 2.4m earth stations do not comply with the gain mask in Section 25.209 of the Commission's rules, Alaska Communications Internet demonstrates in the attached Form 312, Schedule B that it will operate the terminals at maximum EIRP spectral density ("ESD") levels below those previously

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<sup>10</sup> The General Dynamics Prodelin Antenna Model 1386 is a technically identical variant of the Model 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, <https://www.fcc.gov/approved-non-routine-earth-station-antennas>.

<sup>11</sup> See, e.g., Harris Corporation, File No. SES-LIC-20060302-00342, Call Sign E060075.

authorized by the Commission and in compliance with the ESD mask set forth in Section 25.218(d) of the Commission's rules.<sup>12</sup>

At the Yakutat and Hooper Bay Sites, Alaska Communications Internet will utilize a 3.8-meter General Dynamics Prodelin Models 1386 and 1385, respectively, that is electrically identical in all material respects to the previously licensed Prodelin Model 1383. As with the other sites, although the Prodelin 1385/1386 earth stations (like the Prodelin 1383) do not comply with the gain mask in Section 25.209 of the Commission's rules, Alaska Communications Internet demonstrates in the attached Schedule B that it will operate these earth stations in compliance with the ESD mask set forth in Section 25.218(d) of the Commission's rules and below the maximum ESD levels previously approved by the Commission.<sup>13</sup>

At each Site, the earth station will be mounted on the roof of an existing building, such as a telephone central office or on a previously installed pole in an area inaccessible to the general public. In each case, the planned location is 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,"<sup>14</sup> and thus falls within the exemptions of Section 1.1306(a)-(b) and Note 1 to that rule.<sup>15</sup> Accordingly, no

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<sup>12</sup> See 47 C.F.R. § 25.218(d). Each site will utilize an iDirect modem, which assigns individual time slots for each earth station's transmissions, and thus there is no potential for aggregation of transmissions that would exceed the off-axis ESD levels provided in this application.

<sup>13</sup> See Alaska Communications Internet, LLC, SES-LIC-20171116-01257, Call Sign E170205 (Dimond D and St. Paul Island sites); RCN License Subsidiary, Inc., SES-LIC-20050114-00077, Call Sign E050016 (Max EIRP density 45.4 dBW/4kHz); Intelsat LLC, File No. SES-LIC-20110627-00745, Call Sign E110100 (Max EIRP density 31.9 dBW/4kHz); Public Broadcasting of Colorado, Inc., SES-MOD-20060608-00951, Call Sign E030163 (Max EIRP density 43.2 dBW/4kHz); Harris Corporation, File No. SES-LIC-20060302-00342, Call Sign E060075.

<sup>14</sup> 47 C.F.R. § 1.1307(a)(4).

<sup>15</sup> 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.").



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 modification application, which has now been completed for all Sites. Pursuant to Sections 25.115(c)(2)(ii) and 25.203 of the 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 at the various sites covered by this Application.

As demonstrated in the attached frequency coordination reports, as coordinated and limited,<sup>16</sup> 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. C-Band Report and Order**

In the *C-band Report and Order*, the Commission directed the International Bureau to begin processing earth station applications filed in the 3.7-4.2 GHz band outside the contiguous

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<sup>16</sup> To prevent interference to nearby terrestrial microwave operations, Alaska Communications Internet will limit its transmit operations at the Old Harbor, Akhiok, Larsen Bay and Hooper Bay Sites (*see* Frequency Coordination Reports and Schedule B).

United States and lifted the filing freeze that was previously in effect with regard to these areas.<sup>17</sup> Alaska Communications Internet will operate the proposed earth stations in compliance with *C-band Report and Order* by limiting its operations in the 3.7-4.2 GHz band to locations outside of the contiguous United States at all times.<sup>18</sup> In removing the FSS allocation in the 3.7-4.0 GHz band within the contiguous United States, the Commission noted that “locations outside of the contiguous United States, many of which are remote, have a greater need for a wide variety of C-band services”<sup>19</sup> and thus maintained the FSS allocation in those regions. In most instances, the C-band services provided by Alaska Communications Internet is the only option available for these remote Alaska Bush villages and businesses and the type of critical C-band services contemplated by the Commission.

No other waiver of the Commission’s rules is required.

#### **D. Public Interest**

Grant of this application will strongly serve the public interest by furthering the goals of Commission to expand the availability of affordable broadband services and thereby provide enhanced economic growth and development opportunities for residents of the Alaska Bush.<sup>20</sup> In general, the earth stations proposed in this Application represent another step toward fulfilling the Commission’s vision of universal availability of broadband. As the Commission reiterated in late 2019:

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<sup>17</sup> *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, 35 FCC Rcd 2343 (2020), at ¶ 149 (“*C-band Order*”), *appeals pending* (“*C-Band Report and Order*”).

<sup>18</sup> See *C-Band Report and Order* ¶ 132 (finding that, “authorizations for FSS operations outside of the contiguous United States may continue to operate in the entire 3.7-4.2 GHz band”).

<sup>19</sup> *Id.*

<sup>20</sup> See *generally Connect America Fund*, WC Docket No. 10-90, Report and Order and Further Notice of Proposed Rulemaking, FCC 11-161, 26 FCC Rcd 17663 (2011) (“*Transformation Order*”).

Broadband access is critical to economic opportunity, job creation, education and civic engagement. That is why closing the digital divide is the Commission's top priority. For communities throughout our nation to thrive and prosper, their residents must have the option to obtain high-speed Internet access.<sup>21</sup>

By improving educational and economic opportunities and healthcare services, supporting civic involvement, and strengthening the cultural and social fabric of the nation, these earth stations will help close the digital divide and enhance the wellbeing of the communities they serve.

Specifically, in the case of the KANA Sites, the requested earth stations will enable broadband connectivity to support critical telehealth and telemedicine needs for the local KANA village clinics. Without these services, the community would lack local access to the panoply of quality healthcare services available in Anchorage and beyond, and residents may be forced to travel to Anchorage, Seattle, or other cities in the lower 48 states for specialized (and even many relatively basic) medical services. In addition to the considerable cost, the impact of such a journey can compound the health concerns, or even imperil the lives, of patients that are already unwell.

In the case of the OTZ Site, a grant of this Application will strongly serve the public interest by allowing Alaska Communications Internet to further support OTZ's transition from its legacy middle mile connectivity, which currently relies on an aging satellite space station that is already beyond the end of its useful life, to Alaska Communications Internet's more modern backhaul infrastructure. This, in turn, will ensure no lapse in critical broadband and other communications services to residents, local businesses, schools, libraries, health care providers, and others in the Kobuk area that rely on OTZ for their basic connectivity needs. This is also the case for the Yakutat site, where Alaska Communications Internet's backhaul infrastructure will

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<sup>21</sup> *Rural Digital Opportunity Fund*, WC Docket No. 19-126, Notice of Proposed Rulemaking, FCC 19-77 (rel. Aug. 2, 2019), at ¶ 1.

improve the community's middle mile connectivity to ensure no lapse in critical broadband and other communications services to residents and local businesses. A grant of this application will contribute greatly to the regional well-being of the Northwest Arctic Borough of Alaska by helping to improve access to the information resources, knowledge materials, and opportunities made available by broadband connectivity.

In the case of the BBTC 8 Mile Site, Alaska Communications Internet will directly help maintain and improve voice and broadband services for local residents, including low-income consumers. Given that BBTC is a provider of diverse telephone, mobile wireless, cable and interest access services, including services supported by the FCC's Lifeline program for low-income customers, the telephone transport and signaling support provided by Alaska Communications Internet will contribute to the improvement of basic connectivity for the residents and businesses in the Bristol Bay Borough of Alaska..

In the case of the Silver Bay site, a grant of this Application will enhance economic opportunities and foster connectedness for the workforce living at or near these sites. The proposed satellite earth stations will not only provide critical connectivity to support the business needs of the customer, but it will also support the needs of the workers themselves. At many of these sites, the community of year-round residents is too small to provide the necessary workforce, and seasonal workers live for months in company-provided quarters, relying on satellite broadband to remain connected to distant family and friends.

In the case of Red Dog Mine, grant of this application will allow Alaska Communications Internet to provide broadband services to support the largest remote zinc mining operation in the world and its employees, which include generations of Red Dog Mine residents. Moreover, Red Dog Mine is a small community in Northwest Alaska that is unable to be effectively served by

terrestrial connectivity. The nearest fiber connectivity is at the Quintillion's submarine cable landing station in Kotzebue, Alaska (over 60 miles away in a straight line). To reach that point, in addition to terrestrial fiber construction, it would likely require deployment of lengths of undersea cable and the associated cable landing stations needed to cross open stretches of the Chukchi Sea.

Finally, in the case of the Hooper Bay Site, grant of this application will allow Alaska Communications Internet to support the Native Village of Hooper Bay and bring upgraded telecommunications services to the community. As part of a CARES Act funded initiative, Alaska Communications Internet will help improve critical broadband services to residents, local businesses, schools, health care providers, and others that rely on the Hooper Bay's telecommunications infrastructure for their basic connectivity needs.

For all Sites proposed hereunder, because remote areas of Alaska are unique in their need for C-band satellite broadband connectivity and will occur exclusively outside of the contiguous United State, it will best serve the public interest to authorize additional earth stations in the Alaska Bush forthwith.

### **III. Conclusion**

For the foregoing reasons, Alaska Communications Internet requests that the Commission grant this Application to modify the License, E170205, to add the eleven (11) Sites described herein to its existing VSAT network serving rural and remote Bush communities in Alaska.