

**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-_____

**VSAT Network License Modification Application**

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 license, Call Sign E170205 (the “License”),<sup>1</sup> by adding fifteen (15) additional earth station sites (the “Sites”) that will support delivery of critically needed voice and broadband services to customers in remote and inaccessible areas of Alaska that are unserved or underserved by terrestrial telecommunications transport networks. These customers include rural incumbent local exchange carriers (“RLECs”) serving some of Alaska’s smallest communities, rural health care providers delivering critical telemedicine services, and commercial companies providing critical employment and economic opportunities in and around Native Alaskan villages.

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 communicating with the EUTELSAT 115WB satellite located at the 114.9° W.L. orbital position. Alaska Communications Internet has previously obtained or requested Special Temporary Authority to provide service at these additional Sites.

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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.

## **Background**

Alaska Communications Internet is an affiliate of Alaska Communications Systems Group, Inc. (“Alaska Communications”), a publicly-traded company that, through its subsidiaries, provides essential broadband and voice-over-Internet Protocol (“VoIP”) services to enterprise, business, educational, health care, and residential customers throughout the state of Alaska. Taken together, its four incumbent local exchange carrier affiliates<sup>2</sup> provide wireline voice telecommunications and broadband-enabled services to customers in Anchorage, Fairbanks, and Juneau, as well as approximately 50 rural and remote Native Alaskan villages and other Bush communities.<sup>3</sup>

The License authorizes Alaska Communications Internet to operate a network of C-band satellite earth stations used to serve diverse users in remote locations in Alaska. Specifically, from the gateway hub in Anchorage, Alaska, the network currently serves the Alaska Native population of St. Paul Island and the Tanadgusix Corporation (“TDX”), an Alaska Native corporation created pursuant to the Alaska Native Claims Settlement Act (“ANCSA”). In addition, the C-band VSAT network provides broadband connectivity to each of the individual schools and the District Office of the Kuspuk School District with support from the Commission’s Schools and Libraries Universal Service Support Mechanism (“E-rate”);<sup>4</sup> local fishing and seafood processing businesses

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<sup>2</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).

<sup>3</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 and are not 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.

<sup>4</sup> *See* Alaska Communications Internet LLC, File No. SES-MOD-20180626-0142, Call Sign E170205 (granted Aug. 5, 2019) (“*Kuspuk Modification Application*”).

co-owned by the Bristol Bay Economic Development Corporation (“BBEDC”),<sup>5</sup> and a test site located at the Alaska Communications headquarters in Anchorage, Alaska.<sup>6</sup>

The Sites covered by this Application are those for which Alaska Communications Internet has previously requested or obtained special temporary authority to serve under the License. Specifically, this Application seeks regular licensed authority to serve a seafood processing plant operated by Silver Bay Seafood, LLC at False Pass, Alaska;<sup>7</sup> additional coastal seafood processing plants operated by Trident Seafoods Corporation; a remote mining operation in Iliamna, Alaska operated by Pebble Limited Partnership;<sup>8</sup> and the insular Arch Priest Nicholas Kompkoff Health Clinic supported by the Commission’s Rural Health Care (“RHC”) Universal Service Support Mechanism and operated by Chugachmiut, Inc., an Alaska Native non-profit agency that serves the seven Alaska Native tribes in the state’s Chugach Region;<sup>9</sup> as well as to provide critically-needed middle mile backhaul service needed to maintain voice and broadband communications services for customers of OTZ Telephone Cooperative, a small Alaskan RLEC serving small, primarily Alaska Native communities in northwest Alaska.<sup>10</sup>

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<sup>5</sup> The BBEDC (<http://www.bbedc.com>) is a not-for-profit company whose mission is to promote economic growth and opportunities for residents of BBEDC’s member communities through sustainable use of the Bering Sea resources. *See* Alaska Communications Internet LLC, File Nos. SES-MOD-2018-0413-00352 and SES-AMD-2018-0427-00401 (granted June 25, 2018 (Excursion Inlet, Alitak, Naknek sites).

<sup>6</sup> *See Kuspuk Modification Application.*

<sup>7</sup> *See* Alaska Communications Internet LLC, File Nos. SES-STA-20190211-00110 and SES-STA-20190418-00526, Call Sign E170205 (“*Silver Bay STA*”).

<sup>8</sup> *See* Alaska Communications Internet LLC, File Nos. SES-STA-20190515-00602 and SES-STA-20190724-00973, Call Sign E170205 (“*Trident/Pebble STA*”).

<sup>9</sup> *See* Alaska Communications Internet LLC, File No. SES-STA-20190712-00914, Call Sign E170205 (“*Chenega STA*”).

<sup>10</sup> *See* Alaska Communications Internet LLC, File No. SES-STA-20190809-01040, Call Sign E170205 (filed Aug. 9, 2019) (“*OTZ STA*”) (pending). 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/>.

## **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 fifteen 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 Chugachmiut Site:**

- Chugachmiut Chenega Bay Health Clinic  
General Dynamics Prodelin Model 1241 (2.4-meter)<sup>11</sup>  
(geographic coordinates: 60° 3' 56.27" N, 148° 1' 1.61" W)

#### **The OTZ Sites:**

- OTZ Kotzebue Headquarters  
General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 66° 51' 29.59" N, 162° 36' 50.44" W)
- OTZ Noatak Village Office  
General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 67° 34' 17.03" N, 162° 58' 14.52" W)
- OTZ Ambler Village Office  
General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 67° 05' 11.48" N, 157° 51' 40.65" W)
- OTZ Noorvik Village Office  
General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 66°49' 59.35" N, 161° 02' 44.78" W)
- OTZ Kiana Village Office  
General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 66° 58' 24.33" N, 160° 25' 49.27" W)

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<sup>11</sup> The General Dynamics Prodelin Model 1241 is a previously approved and technically identical variant of the Model 1244. Alaska Communications Internet will operate these earth stations at maximum EIRP spectral density ("ESD") levels 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>.

- OTZ Deering Village Office  
General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 66° 04' 32.74" N, 162° 43' 21.99" W)
- OTZ Buckland Village Office  
General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 65° 58' 41.98" N, 161° 07' 29.50" W)
- OTZ Selawik Village Office  
General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 66° 36' 24.35" N, 160° 00' 52.65" W)
- OTZ Kivalina Village Office  
General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 67° 43' 34.87" N, 164° 32' 15.84" W)

**The Trident Seafoods Sites:**

- Trident Seafoods North Naknek  
General Dynamics Prodelin Model 1251 (2.4-meter)<sup>12</sup>  
(geographic coordinates: 58° 43' 41.4" N, 157° 0' 26.2" W)
- Trident Seafoods Akutan  
General Dynamics Prodelin Model 1251 (2.4-meter)  
(geographic coordinates: 54° 7' 59.3" N, 165° 47' 22.1" W)
- Trident Seafoods Sand Point  
General Dynamics Prodelin Model 1251 (2.4-meter)  
(geographic coordinates: 55° 20' 10.9" N, 160° 30' 8.3" W)

**The Silver Bay Seafood Site:**

- Silver Bay Seafood False Pass  
General Dynamics Prodelin Model 2385 (3.8-meter)<sup>13</sup>  
(geographic coordinates: 54° 51' 54.00" N, 163° 24' 42.20" W)

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<sup>12</sup> The General Dynamics Prodelin Antenna Model 1251 is also a technically identical variant of the Model 1244 and Model 1241. Alaska Communications Internet will operate these earth stations at maximum EIRP spectral density ("ESD") levels 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>13</sup> The General Dynamics Prodelin 2385 is, in all material respects, electrically identical to the Prodelin 1383, a model that the Commission has licensed for two other sites in the License, and which appears on the Commission's Approved Non-Routine Earth Station Antennas List ("Non-Routine Antenna List"). See Approved Non-Routine Earth Station Antennas, <https://www.fcc.gov/approved-non-routine-earth-station-antennas>. The Prodelin 2385 includes a stronger, reinforced support structure than that supplied with the Prodelin 1383, which is necessary to withstand the high winds and inclement weather that the Silver Bay Seafood site on Unimak Island frequently experiences.

**The Pebble Site:**

- Pebble Partnership Iliamna
- General Dynamics Prodelin Model 1241 (2.4-meter)  
(geographic coordinates: 59° 45' 26.0" N, 154° 54' 22.8" W)

Except for the Silver Bay Seafood Site, 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, including for other sites appearing in this License.<sup>14</sup> 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 authorized by the Commission and in compliance with the ESD mask set forth in Section 25.218(d) of the Commission's rules.<sup>15</sup>

At the Silver Bay Seafood Site, Alaska Communications Internet will utilize a 3.8-meter General Dynamics Prodelin Model 2385 earth station that is electrically identical in all material respects to the Prodelin Model 1383. As with the other sites, although the Prodelin 2385 earth station (like the Prodelin 1383) does 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 this earth station in compliance with the ESD mask set forth in Section

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<sup>14</sup> See, e.g., Harris Corporation, File No. SES-LIC-20060302-00342, Call Sign E060075.

<sup>15</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.

25.218(d) of the Commission's rules,<sup>16</sup> and below the maximum ESD levels previously approved by the Commission.<sup>17</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>18</sup> and thus falls within the exemptions of Section 1.1306(a)-(b) and Note 1 to that rule.<sup>19</sup> 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 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

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<sup>16</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>17</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>18</sup> 47 C.F.R. § 1.1307(a)(4).

<sup>19</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.").

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>20</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. Waiver of the Temporary Filing Freeze**

Alaska Communications Internet acknowledges the current freeze on applications to license new earth stations in the 3.7-4.2 GHz band. In an attachment to this Application, Alaska Communications Internet requests a waiver of that freeze.

**D. Public Interest**

Grant of this application will strongly serve the public interest by allowing Alaska Communications Internet to provide reliable broadband services to multiple rural and remote Alaskan Bush communities that are unserved or underserved by terrestrial telecommunications networks. The Sites encompass a rural healthcare clinic; local exchange central offices and headquarters of the OTZ Telephone Cooperative, which provides vital voice, mobile, and broadband services in numerous Native Alaskan villages in northwestern Alaska; seafood

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<sup>20</sup> To prevent interference to nearby terrestrial microwave operations, Alaska Communications Internet has limited its transmit operations to the 5925-6108.10 MHz and 6301.19-6360.14 MHz bands at the OTZ Kotzebue Headquarters Site.



processing facilities that provide much-needed economic opportunity in isolated Aleutian and other coastal communities; and a mining concern in the remote interior of the state that will, in addition to creating direct and indirect employment and other economic opportunities, contribute to the nation's resource security.

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 earlier this month:

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.

In the case of the Chugachmiut site, the requested earth station will enable broadband connectivity to support critically needed telehealth and telemedicine services for patients in the insular community of Chenega Bay. Without these services, the community would lack local access to the panoply of quality healthcare services available in Anchorage and beyond, and patients would 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.

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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.

In the case of the OTZ Sites, a grant of this Application will strongly serve the public interest by allowing Alaska Communications Internet to 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 nine Alaska Bush villages that rely on OTZ for their basic connectivity needs. A grant of this Application will contribute greatly to the regional well-being of the Northwest Arctic Borough of Alaska by bridging the digital divide and helping to improve access to the information resources, knowledge materials, and opportunities made available by broadband connectivity.

In the case of the Silver Bay Seafood, Trident Seafoods, and Pebble Sites, 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.

Moreover, because remote areas of Alaska are unique in their need for C-band satellite broadband connectivity and unlikely to need new allocations of spectrum to support 5G deployment contemplated by the Commission, it will best serve the public interest to authorize additional earth stations in the Alaska Bush forthwith.

**Conclusion**

For the foregoing reasons, Alaska Communications Internet requests that the Commission grant this Application to modify the License, E170205, to add the fifteen (15) Sites described herein to its existing VSAT network serving rural and remote Bush communities in Alaska.