3060-0678 Approved by OMB

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATIONEnter a description of this application to identify it on the main menu: REQUEST FOR STA TO OPERATE C-BAND TELEPORT IN SEWARD, AK.

1. Applicant

Phone Number: TelAlaska Cellular, Inc. Name:

Fax Number: **DBA** Name:

E-Mail: 201 E 56th Avenue Street:

administration@telalaska.com

99518 AK

Zipcode:

907-565-5539 907-563-2003

> State: Anchorage City:

Mr Jim R Mathe Attention:

USA

Country:

File# SES-ST#-20191612-01305

Call Sign E1 900 40 Grant Date 10/22/2019 (or other identifier)

Term Dates

Approved:

International Bureau

GRANTED

With conditions attachedon next Page. 144 Applicant: E190040-

File No.: SES-STA-20191012-01305Call

Sign: E190040

Special Temporary Authority

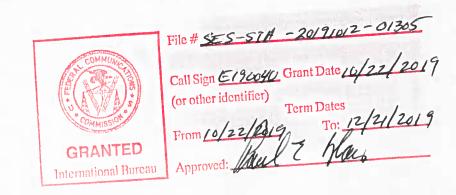
TelAlaska Cellular, Inc is granted special temporary authority for 60 days, beginning October 22, 2019, to operate a 9.3 meter antenna in Seward, AK with Permitted List satellites in the 3700-4200 MHz (spaceto-Earth) and 5925-6425 MHz (Earth-to-space) frequency bands under the following conditions:

1. Operations will not exceed:

Operations Frequency (MHz)	Polarization	Emission	Tx/Rx	Max EIRP /Carrier (dBW)	Max EIRP Density (dBW/4kHz)
3700-4200 5925-6425 5925-6425	н&V H&V H&V	36M0G7W 36M0G7W 2M70G7W	Т	71.64 71.64	32.2 43.32
3323 0423					

- 2. In the event of any harmful interference under this grant of special temporary authority, TelAlaska Cellular, Inc must cease operations immediately upon notification of such interference and must immediately inform the Commission in writing of such an event.
- 3. The TelAlaska Cellular, Inc point of contact to resolve technical issues, Jason Martin, is available at 907-563-2003.
- 4. Transmitters(s) must be turned off during antenna maintenance to ensure compliance with the FCC-specified safety guidelines for human exposure to radiofrequency radiation in the region between the antenna feed and the reflector. Appropriate measure must also be taken to restrict access to other regions in which the earth station's power flux density levels exceed the specified guidelines.
- 5. Any action taken, or expense incurred as a result of operations pursuant to this special temporary authority is solely at TelAlaska Cellular 's risk.
- Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending or future TelAlaska Cellular applications.

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 immediately.



2. Contact				
Name: Company:	ıny:	Richard D. Rubino Blooston, Mordkofsky, Dickens, Duffy & Prendergast, LLP	Phone Number: Fax Number:	202 8 2 8 5519 202 8 2 8 556 8
Street:		2120 L Street, NW Suite 300	E-Mail:	
City: Country: Attention:	ry: ion:	Washington USA	State: Zipcode: Relationship:	DC 20037 – Legal Counsel
		04+ 4+; L = 151	Commission enter either the	
(If your application is related to an application. Please enter only one.)	on is rel	If your application is related to an application filed with the Commission application. Please enter only one.)	Jebmission ID	
3. Reference File	Numo	er sesanivezet zezeses		
4a. Is a fee sub	omitted lete and	4a. Is a fee submitted with this application? An Is a fee submitted with this application? If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).	licate reason for fee exemptio	ı (see 47 C.F.R.Section 1.1114).
O Governmental Entity	al Entit	y O Noncommercial educational licensee	Il licensee	
Other(please explain):	explair	n):		
4b. Fee Classification	1	CGX - Fixed Satellite Transmit/Receive Earth Station	sceive Earth Station	
5. Type Request		-		
Use Prior to Grant	Grant		O Change Station Location	O Other
6. Requested Use Prior Date	e Prior	Date		
10/14/2019	6			

7. CitySeward (4d mm ss.s h) 60 9 10.72
9. State AK (dd mm ss.s h) 149 25 24.67
11. Please supply any need attachments. Attachment 1: STA LETTER Attachment 1: STA LETTER
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.)
REQUEST FOR STA TO OPERATE C-BAND TELEPORT AT SEWARD, ALASKA.
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 President and General Manager
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).

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ARTHUR BLOOSTON 1914 - 1999

> WRITER'S DIRECT DIAL NUMBER (202) 828-5519

Marlene H. Dortch, Secretary Office of the Secretary Federal Communications Commission 445 12th Street, SW Washington, DC 20554

Attention:

Kerry Murray, Deputy Division Chief

International Bureau

Re:

TelAlaska Cellular, Inc.

Application for Satellite Earth Station E190040

File No. SES-LIC-20181031-03653

Dear Ms. Dortch:

On behalf of TelAlaska Cellular, Inc. ("TelAlaska") and pursuant to Section 1.65 of the Commission's Rules, we are responding to an informal inquiry by the Federal Communication Commission's (the "Commission") staff for additional information concerning TelAlaska's above-referenced application (the "Application") for a waiver of the Commission's 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 (the "Earth Station Freeze") to establish a fixed satellite earth station in the 3.7-4.2 GHz Band at Seward, Alaska (the "Teleport").

As demonstrated herein and for good cause shown, a grant of TelAlaska's request for waiver of the Earth Station Freeze would serve the public interest and the underlying purpose of the Earth Station Freeze would not be undermined.² Accordingly, TelAlaska respectfully requests that the FCC promptly grant the Application in the interest of rural Alaskan customers.

² *Id.* at p3.

¹ Earth Station Freeze Public Notice, DA 18-398 (rel. Apr. 19, 2018).

There is Good Cause to Grant this Waiver

The Commission may waive any rule for good cause shown.³ Here, TelAlaska has demonstrated good cause to grant a waiver of the Earth Station Freeze due to: (i) the unique operational challenges in the remote Alaskan communities served by TelAlaska; (ii) the lack of suitable, cost-effective alternatives to reliably meet the telecommunications needs of these remote Alaskan communities; (iii) improvements in reliability and service quality and reduced latency that would be provided by the Teleport; (iv) the importance of crucial communications services that TelAlaska provides to remote Alaskan communities and (v) the impending decommissioning of AT&T's AMC-8 satellite in December, 2019 that will result in a loss of communications service for several isolated Alaskan communities. 4 Without a grant of the instant waiver request, several rural communities will lose communications service later this year upon the decommissioning of the AMC-8 satellite.

A Waiver Serves the Public Interest

Grant of the waiver will permit TelAlaska to provide reliable broadband internet and communications services for critical community services (such as schools, libraries, healthcare institutions and patients, emergency first responders (FirstNet, police, fire and EMS), as well as residential and business customers in some of our nation's most remote, harsh and wilderness like locations. It is well known that Alaska presents unique challenges in providing broadband services to its remote and rural population. The extreme isolation of these many communities requires the use of expensive satellite-based communications systems since it is rarely feasible to construct and operate terrestrial based systems. Enabling the provision of these services through a long-term and reliable solution will allow TelAlaska to serve the public interest by providing these crucial communications services to Alaska's isolated, rural communities.

Operation of this Alaska-based teleport would serve the public interest in many ways, including:

1. The Teleport (a) can be available to serve the needs of Alaska providers prior to the decommissioning of AT&T's AMC-8 satellite later this year in December 20196; (b) will solve the capacity issues for TelAlaska's current customers and (c) in doing so, will offer the opportunity for providers to develop and support critical services.⁷

⁴ See Appendix A, Letter of Support from Arctic Slope Telephone Association Cooperative, Inc. dated August 30,

⁵ See Connect America Fund et al., Report and Order and Further Notice of Proposed Rule Making, 31 FCC Rcd 10139, 10162-63, ¶72 (2016) (quoting Connect America Fund et al., report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17829 (2011)) (noting unique conditions in Alaska, including "its remoteness, lack of roads, challenges and costs associated with transporting fuel, lack of scalability per community, satellite and backhaul availability, extreme weather conditions, challenging topography, and short construction season").

⁶ See Appendix A, Notice of Discontinuance.

⁷ The FCC has an open docket that addresses the growing needs for bandwidth spectrum, in particular, the 3.7GHz

2. The Teleport is crucial for state-wide interoperable broadband public safety communications and will meet FirstNet's requirement that TelAlaska terminate its traffic

in Anchorage.8

3. The Teleport will reduce the network's overall latency by up to 90 ms and increase capacity from 108 MHz/360Mbps to 288MHz/960Mbps. This reduction in latency by terminating traffic in Seward will improve service quality for real time applications for customers such as telehealth, long-distance, learning services, etc. by eliminating (or substantially reducing) delays associated with two-way communications.

4. The availability of a local teleport in Seward, Alaska would (a) allow users to receive services with improved quality due to lower latency and more capacity and (b) reduce the future cost of providing service to the public. Without the Teleport, telecommunications providers throughout Alaska will be required to make infrastructure changes and incur additional costs to transport traffic back to Alaska, which costs would need to be passed onto its subscribers in the form of higher rates.9

5. Removal of TelAlaska's traffic from the Petaluma teleport will make additional C-Band capacity available for use in highly populated areas, such as northern California.

6. Location of the Teleport in Seward, Alaska will not impact the availability of 5G service in Alaska since, unlike the lower 48, Alaska is not spectrum starved. There is an abundance of lower band spectrum available today that could be used for other services and technology in the future (e.g., when Alaska is ready for 5G deployment). 10 The relative abundance of capacity in Alaska mitigates the FCC's concern with availability of spectrum for future uses, and the Teleport promotes the FCC's objective to expand the availability of spectrum for 5G services in highly populated areas.

Unique Operational Conditions in Remote Portions of Alaska

Unlike the lower 48 states which have an abundance of middle-mile fiber capacity, Alaska lacks terrestrial middle-mile infrastructure resources and bandwidth capacity. TelAlaska and other Alaska providers rely on satellite bandwidth for middle-mile backhaul. TelAlaska is proposing to operate the 3.7 GHz Band Teleport as its telecommunications hub for approximately twenty six (26)11 remote communities throughout Alaska ranging from the North Slope Borough to the Aleutian Islands. See Appendix A. These communities are often

8 TelAlaska will transport the traffic from Seward to Anchorage, along with the traffic from other carriers/users

to 4.2GHz C-Band frequency. (FCC WTB 18-122 Expanding Flexible Use of the 3.7 GHz to 4.2GHz Band). Several Alaska service providers have filed comments in this docket. TelAlaska actively participated in comments filed by the Alaska Telecommunications Association. All of these comments unanimously noted the unique circumstances justifying a special carve out for Alaska from this nation-wide proposal and freeze proposals. Nevertheless, the resolution of this docket will not address the imminent needs of existing customers of the ACM-8 satellite prior to December 31, 2019.

such as ASTAC for their customer's needs. An additional "leg" on backhaul from the lower 48 back to Alaska would further increase latency because of the distance that the traffic must travel and, in turn, reduce the quality of service provided to customers - which in some cases could make certain critical services unavailable.

¹⁰ See Comments of Alaska Communications, GN Docket No. 18-122; RM-11791; RM-11778August 7, 2019, p. 7. Unalaska, Cold Bay, King Cove, Sand Point, Port Lions. Dillingham, Saint Paul, Iliamna, Saint Michael, Stebbins, Shaktoolik, Koyuk, Elim, Golovin, White Mountain, Teller, Brevig Mission, Wales, Little Diomede, Shishmaref, Galena, Fort Yukon, Anaktuvuk Pass, Point Lay, Atqasuk, Kaktovik.

separated by hundreds of miles of rugged, undeveloped terrain and, in some cases, are located on islands in the Bering Sea - far from the Alaskan mainland. As a result, terrestrial transport solutions are therefore impracticable and uneconomical.

The Commission can take official notice that certain conditions unique to Alaska make the provision of telecommunications services there particularly difficult. ¹² In particular, challenges such as "[Alaska's] remoteness, lack of roads, challenges and costs associated with transporting fuel, lack of scalability per community, satellite and backhaul availability, extreme weather conditions, challenging topography, and short construction season" all contribute to this difficulty. 13 Only three (3) of the communities served by TelAlaska are accessible by roads. For the remainder of its communities, TelAlaska must first travel by large, commercial aircraft to a regional center (e.g., Nome, AK), and then transfer to a single engine commercial or charter aircraft to reach its village communities. Transporting equipment and supplies is also a logistical challenge. Due to the long winter and extreme cold, rivers freeze so barges cannot deliver needed construction, maintenance and basic goods until the few summer months that river and ocean transportation routes are open. Even "truck rolls" within a community can present challenges. For example, in many locations, a "truck roll" is accomplished with a 4-wheeler in the summer months or a snowmobile in the winter months.

TelAlaska utilizes a variety of technologies to provide dependable telecommunications services to these communities, and often must do so in innovative ways. Currently, there are no options for landing this satellite traffic within the state through TelAlaska's satellite provider. As a result, TelAlaska must contract with out-of-state providers for satellite backhaul services which adds both complexity and higher latency to the service. By constructing and operating its own Teleport within the state, TelAlaska will be able to provide a much higher level of service to its subscribers with greater reliability and reduced latency.

Lack of Reliable Alternatives; Current Network Configuration; Bandwidth Needs

Lack of Reliable Alternatives

Satellite service is the primary (if not exclusive) means for providing effective telecommunications to the people in these remote Alaska native villages. The communities that will be supported by the new Teleport are not connected to any intrastate nor intercommunity road systems and have no access to fiber backhaul. These villages are isolated from (i) population centers within Alaska, (ii) one another, (iii) commercial power grids and (iv) basic infrastructure that is necessary to connect them to telecommunications and broadband networks. For example, the nearest access to fiber for any of these communities that would be served by TelAlaska's Teleport would be Teller/Brevig Mission, which is approximately 70 miles from

¹³ 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)).

Nome.¹⁴ Unalaska's nearest fiber access is Anchorage, a distance of approximately 800 miles that would require subsea fiber and construction of terrestrial fiber across hundreds of miles of rugged, uninhabited (and sometime "protected" 15) terrain. 16

TelAlaska currently owns and operates its own remote earth stations within and outside its service areas and leases C-Band and Ku spectrum from a geo-stationary satellite provider. As noted by other carriers and the Bureau in Orders granting recent waiver applications, 17 the Ku and Ka Bands do not provide reliable alternatives to C-Band in many Alaskan communities due to propagation characteristics and the lack of satellite footprints on Northern Alaska. 18 TelAlaska's independent review of alternative satellite bandwidth operating from a geosynchronous position confirmed that, when compared to other satellite bands, C-Band offers better performance, availability and coverage in Alaska's extreme northerly latitudes and harsh weather conditions – especially near and above the Arctic Circle. 19 Furthermore, access to Ka-Band is not available in in these northern Alaska markets²⁰ and none of the major Ka HTS operators have plans to launch any new satellites that would be able to serve Alaska in the foreseeable future. Both the Ka-Band and Ku-Band lack the atmospheric penetration capability of C-Band and are vulnerable to extended outages due to harsh weather conditions which make use of the Ka- and Ku-Bands unreliable. In this regard, TelAlaska previously deployed facilities operating in the Ku-Band to serve the community of Wales, which is located in Northwest Alaska where the Bering Sea meets the Chukchi Sea. The high amount of precipitation and cloud coverage in Wales throughout the year interrupted the higher frequency wave length of the Ku-Band and created instability. As a result, TelAlaska was forced to deploy C-Band equipment in Wales in order to provide a more reliable and robust network to meet that community's critical communications needs. This case demonstrates why the Ka- and Ku-Bands are not suitable and

15 Izembek National Wildlife Refuge: https://www.aleutianseast.org/?SEC=F01C70F6-028E-4181-83DD-

https://www.rd.usda.gov/files/ReConnect Program Section 106 EQ.pdf. As a result, construction of terrestrial transport facilities to remote Alaska native villages is simply not a viable, cost-effective solution.

18 See GCI Order at ¶6 and ACI Order at ¶5.

GN Docket No. 18-122 (August 28, 2019)

¹⁴ TelAlaska recently analyzed a construction project of fiber backhaul from Nome to Teller and estimated project

¹⁶ Federal and state permitting processes also add time, complexity and expense to terrestrial construction projects. For example, the Alaska State Department of Natural Resources recommends applying for permits two years in advance of commencing construction. In a recent federal Rural Utility Service Reconnect program, the application process required multiple environmental permitting and impact analyses requirements such as floodplain analysis and mitigation, wetlands analysis and mitigation, threatened and endangered species analysis, community social, economic, historic impact study, national historic preservation act study, coastal zone and barriers and EPA review. See https://www.rd.usda.gov/files/ReConnect Program Site Route EQ.pdf;

¹⁷See GCI, Chevak Letter TLP_(00139862), File No. SESLIC2018060801392;(filed July 22, 2019) and Alaska Communications Internet, LLC, Section 1.65 Letter, File No. SES-MOD-20180626-01472 (filed July 22, 2019); GCI Communications Corp., Order FCC Rcd ___ ¶6 (DA 19-725) (IB 2019) (GCI Order); Alaska Communications Internet LLC, Order FCC Rcd ___ ¶5 (DA 19-726) (IB 2019) (ACI Order).

¹⁹ See GCI Communication Corp., Notice of Ex Parte Communication - Expanding Flexible Use of the 3.7 to 4.2 GHz Band

²⁰ Ka-Band is not proven in Northern part of Alaska and not viable near or above the Arctic Circle.

why the C-Band is the superior spectrum meeting our customers' communications needs in rural Alaska.21

The deployment of microwave facilities in Alaska is likewise similarly challenging and cost-prohibitive due to topography, lack of commercial power and transportation of fuel to remote sites. And, as noted in recent applications for waiver of the Earth Station Freeze, microwave towers and radio systems are not reliable due to severe winter conditions, which can cause damage to equipment.22

Moreover, there are limited options for landing C-Band, Ku-Band or Ka-Band traffic within the state. Eliminating the out-of-state transport TelAlaska is currently forced to acquire from third parties will decrease the latency by approximately 90ms. The decreased latency is important to many data services, particularly telehealth, emergency response networks and longdistance learning education.

Current Network Configuration

TelAlaska's current C-Band teleport service provider uses a 6.5-meter dish antenna (earth station) located in Petaluma, CA, which is shared with other teleport customers. The Petaluma teleport is at full utilization and does not have the capacity necessary to meet TelAlaska's needs and commitments. The distance between Seward, Alaska and Petaluma, California is over 2,000 miles, which increases latency and makes the Pctaluma, CA teleport unsuitable for advanced broadband services such as FirstNet, telemedicine, distance learning, etc.

TelAlaska explored various alternatives to meet Alaska's current and future bandwidth needs. For example, in 2018, TelAlaska examined the potential to expand its current service provider's earth station in Petaluma, CA and considered the use of other teleport locations within Alaska and the lower 48 states for interconnection of its communications system.²³ This research revealed that no other teleport locations meeting TelAlaska's technical requirements existed in the United States and that it was not feasible to upgrade the Petaluma, CA teleport. TelAlaska then promptly began the regulatory and engineering process to construct and operate its Teleport to meet the needs of its customers and the needs of other providers impacted by the decommissioning of the AMC-8 satellite.

No. SESLIC2018060801392 (filed June 8, 2018), 2018, and ACI Legal Narrative (1), File No. SES-MOD-20180626-01472 (filed June 26, 2018)

²¹See Alaska Communications Internet, LLC, Section 1.65 Letter, File No. SES-MOD-20180626-01472 (filed July 22, 2019), at p 5. "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 See GCI And ACI Waiver requests, GCI – C-Band New Earth Station Waiver Request June 2018 (00124188), File

²³ Alaska Communications Internet, LLC ("ACI") operates a hub in Anchorage, AK for its network of earth stations. However, ACI uses a different satellite provider for backhaul making is impractical for use by TelAlaska because use of ACI's hub would require the installation of additional earth stations at TelAlaska's remote locations (i.e., installation of a new satellite dish and related equipment) and additional C-Band licenses.

Bandwidth Needs

TelAlaska has received requests for additional bandwidth capacity from First Net, and other Alaska based service providers (e.g., Alaska Communications ("ACS") and Windy City Cellular ("WWC")) and users (schools, libraries, seafood processors). Additionally, Arctic Slope Telephone Association Cooperative ("ASTAC") has ordered services to replace those currently provided by AT&T AMC-8. Most of the requests and orders require termination in Alaska. These new services will require an additional 95 MHz of bandwidth in the near term (October 1, 2019) -- well over the capacity of TelAlaska's existing service provider's system in Petaluma, CA. TelAlaska's Teleport would help bridge this deficiency by providing the necessary middle-mile solution for FirstNet and other critical communications that could otherwise not be provided in Alaska.

TelAlaska's Teleport is critical to the communications requirements of Alaska based customers. And, the need is imminent. Without this service, several remote Alaska communities served by ASTAC will lose services that they currently have on the Aurora III (a/k/a AMC-8) satellite since AT&T Alaska notified its customers using the satellite on August 14, 2018, that their services will end in December 2019.²⁵ AT&T's decision to decommission the AMC-8 satellite prompted its users to seek replacement options. Several of these users have requested service from TelAlaska.²⁶ To meet those needs, additional capacity is required. TelAlaska's Teleport provides an optimal solution through reduced latency and improved quality of service. In addition, TelAlaska's Teleport will mitigate the need for "former" users of AT&T's AMC-8 satellite to seek alternative middle-mile solutions at significantly higher costs.²⁷

TelAlaska Provides Critical Communications Services TelAlaska to Remote Alaskan Communities

TelAlaska provides critical telecommunications services to the communities it serves. Schools, libraries, healthcare institutions and patients, emergency responders, as well as residential and business customers depend on TelAlaska for services such as:

Reliable communication network for First Responders: The First Responder Network Authority (FirstNet) is a means for advancing the nationwide public safety broadband network improving communications to allow for improved public safety response. FirstNet and AT&T are leveraging private sector resources and infrastructure.²⁸ The Teleport will support FirstNet in providing access and transport between the remote

25 See Appendix A, Notice of Discontinuance.

26 See Appendix A, Support of Teleport.

²⁴ See Appendix A, Support of Teleport.

In at least one instance, the cost associated with replacement bandwidth were found to be nearly nine time (9x) the provider's current costs. "Purchasing bandwidth at nearly nine (9) times the current cost is an economically infeasible option for ASTAC and its customers." Arctic Slope Telephone Association Cooperative, Inc., Section 1.65 Letter, dated August 16, 2019, File Nos. SES-LIC-20190321-00432, SES-LIC-20190321-00433, SES-LIC-20190321-00434, SES-LIC-20190321-00441, and SES-LIC-20190418-00527.

²⁸ See The Network at: https://www.firstnet.gov/network

- communities and FirstNet's network switch at its hub location in Anchorage, Alaska.
- Mobile wireless voice and broadband service: C-Band satellite spectrum allows TelAlaska's cellular/rural wireless system to provide wireless services in thirteen (13) remote communities on the Seward Peninsula serving populations ranging from smallest of 115 to largest of 563, 29 five (5) remote communities along the Aleutian Chain with a population of 108 up to 4,376, and two (2) remote communities in Interior Alaska, Galena and Fort Yukon with populations of 470 and 583 respectively. This wireless service supports 911, subscriber authentication, voice, wireless data and similar elements.
- Long-distance learning services: The remote island community of St Paul, approximately 350 miles from the Alaska mainland, with a population of 479, relies heavily on internet, video and other services via satellite. No terrestrial fiber network connects this rugged and remote island in the Bering Sea to the rest of the world. TelAlaska supports other schools via the e-rate program over satellite in many of the remote communities that will be supported via the Teleport. Satellite service is the primary method of communications in these isolated communities.
- Government services: Teleport will also be available to support:
 - o Federal Aviation Administration's provision of critical weather and navigational data to aircraft flying in remote areas;
 - o Bureau of Land Management's, National Forest Service's and National Park Service's communications in remote areas for fire protection and
 - o Federal and University research teams working throughout the State for archeological surveys, animal migration studies and other programs.
- Telehealth services: Rural Alaska Native villages rely on critical telehealth services to support small clinics that are under-staffed with medical professionals. This project will help support the provision of healthcare services to these communities.
- Broadband on Tribal Lands: The isolated and remote communities on Alaska Native Lands throughout the state, where TelAlaska provides broadband via satellite, rely on numerous services, including ecommerce and access to government services, provided over the internet. Most communities are without roads beyond the community, and rural residents are unable to travel to regional hub communities or urban areas for their everyday needs. The Teleport will enable broadband internet to be brought to their
- Business Services: Provide C-Band satellite service to business in community. For example in Unalaska (pop. 4,376) and King Cove (pop 938), seafood processors rely on satellite service in their daily transactions harvesting and selling seafood worldwide.

Grant of this Waiver Will Not Undermine the Purpose of the Earth Station Freeze.

In adopting the Earth Station Freeze, the Commission made clear that its intent was to "preserve the current landscape of authorized operations in the 3.7-4.2GHz Band" pending further consideration of the Commission's ongoing inquiry into expanded flexible use of the Band, 30 and prevent the filing of speculative earth station applications in anticipation of potential

²⁹ See U.S. Census Bureau American Factfinder, available at:

https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml

30 See Earth Station Freeze Public Notice, DA18-398 (rel. Apr. 19, 2018) at 2-3.

future actions by the Commission.³¹ A grant of TelAlaska's waiver request will not undermine these purposes.

First, the proposed Teleport location will serve sparsely populated, remote locations in Alaska, far from any major urbanized areas or population centers. As a result, a grant of this waiver will result in no more than a *de minimis* change to the existing spectrum landscape or authorized operations in the 3.7-4.2GHz Band. Second, TelAlaska already operates a network of C-Band facilities at multiple sites across Alaska. The Application is for a new Hub location in Alaska to aggregate the existing C-Band traffic to improve the quality of service and reduce latency to rural Alaska in a cost effective manner, and not for speculative purposes. Third, the Teleport will fill the bandwidth need left by the soon to be decommissioned AT&T AMC-8 satellite. Approval of this waiver request would permit TelAlaska to continue to offer these essential services to rural and remote areas throughout Alaska.

Conclusion

For the foregoing reasons, it is respectfully submitted that there is good cause to grant the instant waiver request, and that this waiver will serve the public interest by permitting TelAlaska to operate a new Teleport to provide critical telecommunications services in extremely remote areas throughout the State of Alaska, including areas impacted by the imminent decommissioning of the AMC-8 satellite and areas that might otherwise go unserved. In addition, grant of the requested waiver, in light of the unique facts of this case, will not undermine the purpose of the Earth Station Freeze. Accordingly, TelAlaska respectfully requests that the FCC promptly grant its Application

Respectfully submitted,

Richard D. Rubino

Counsel for TelAlaska Cellular, Inc.

Attachment

cc: Kerry Murray (kerry.murray@fcc.gov)

³¹ Id. at 3.

Appendix A

Illustrative Maps

The proposed Teleport will serve 26 communities throughout Alaska. These communities extend from the North Slope above the Arctic Circle to the islands in the Aleutian Chain, a distance of approximately 1,100 miles. There are no fiber backhaul facilities to these communities.

The first map shows the communities that will be supported with the proposed teleport. It also shows the nearest fiber routes and nearest landing stations in proximity to the communities.

The second map is an overview of distances from TelAlaska's headquarters in Anchorage to various communities it services. The areas served and technicians need to travel to for maintenance of facilities stretches north/south from Minnesota to Texas and east/west from the Carolinas to New Mexico.

Notice of Discontinuance

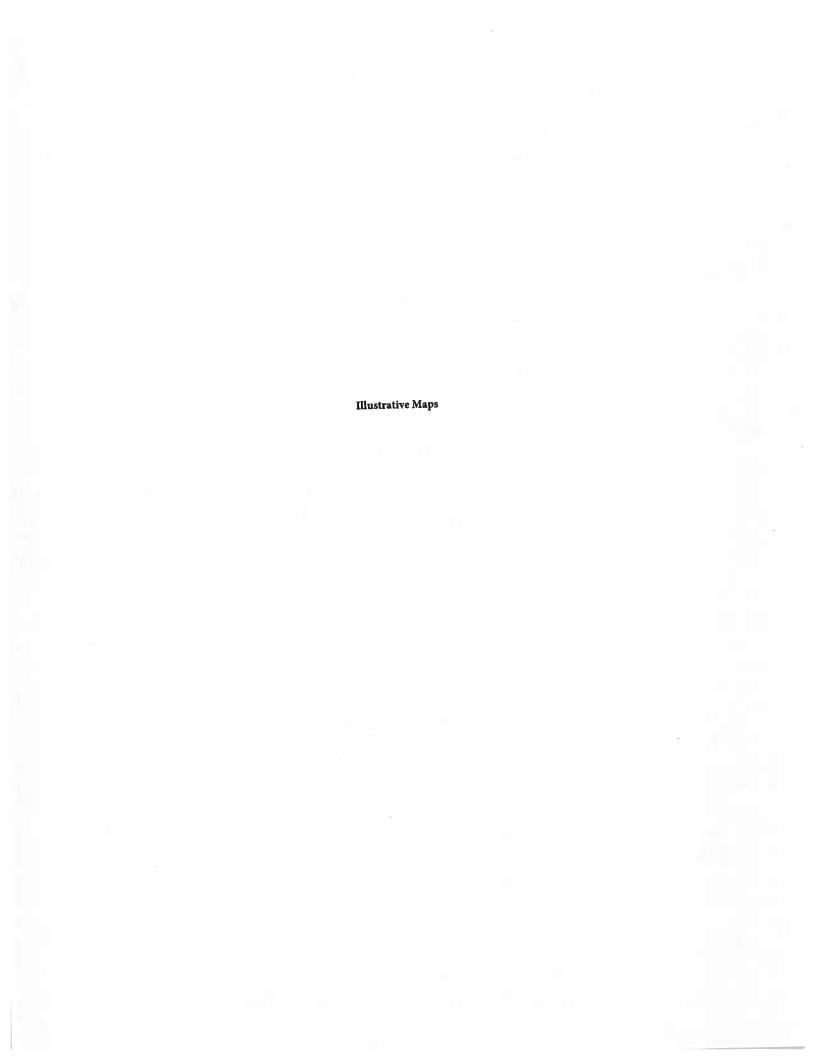
Several remote Alaska communities will lose services that they currently have on the Aurora III (a/k/a AMC-8) satellite since AT&T Alaska notified its customers using the satellite on August 14, 2018, that their services will end in December 2019.

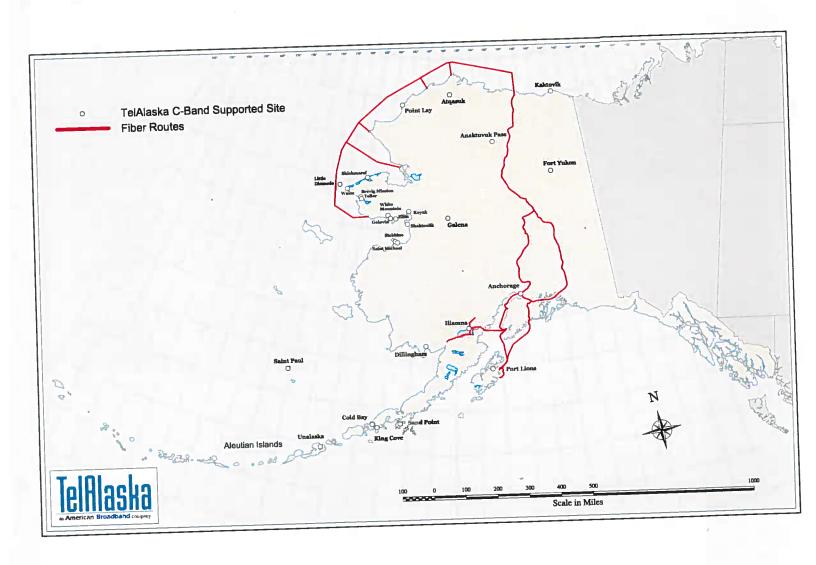
Support of Teleport

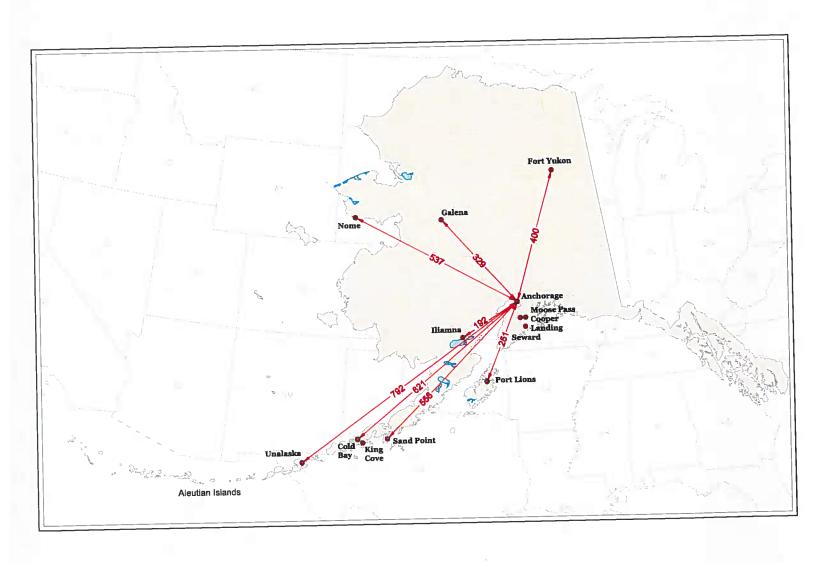
Arctic Slope Telephone Association Cooperative supports a fixed satellite earth station in the 3.7-4.2 GHz band at Seward, Alaska.

Satellite Pricing Notice

AT&T Notice of Price Change for US Domestic Satellite IOCs in Alaska, Effective July 1, 2019







Notice of Discontinuance



August 14, 2018

ASTAC ATTN: Jens Laipenieks CEO / General Manager 4300 B Street, Suite 501 Anchorage, AK 99503

Important Notice Regarding AT&T Ethernet WAN Alaska Service Change in Service Effective 09/30/2018 Service Discontinuance 06/30/2019

Thank you for using AT&T for your business service needs. We want to make you aware of planned changes to your AT&T Ethernet WAN Alaska Service (EWA) transported over Satellite.¹ This change does not affect AT&T Ethernet WAN Alaska transported via fiber optic cable and microwave radio network.

Our records indicate active AT&T Ethernet WAN Alaska Service over Satellite to the following site(s):

Service Sites/Speeds: Point Hope, Wainwright - 1 Mbps

Service Sites/Speeds: Barrow - 3 Mbps

Service Sites/Speeds: Anaktuvuk Pass - 16 Mbps Service Sites/Speeds: Atkasuk, Point Lay - 17 Mbps

Service Sites/Speeds: Kaktovik - 25 Mbps

Effective September 30, 2018, pending regulatory approval where such approval is required, AT&T Ethernet WAN Alaska Service transported over Satellite will no longer be available for purchase by new or existing customers in Alaska.

As a <u>current</u> AT&T customer with AT&T Ethernet WAN Alaska Service you may retain your existing service(s) subject to the following changes in service:

- Effective September 30, 2018, AT&T will no longer renew service agreements for AT&T Ethernet WAN Alaska Service at sites transported over Satellite. Following the expiration of your current AT&T Ethernet WAN Service term agreement, AT&T will provide this service on a month-to-month basis until the Satellite service is discontinued on June 30, 2019. During any month-to-month service period, AT&T may change the rates, terms, and conditions of the service upon notification.
- Effective September 30, 2018, Moves, Additions, and Change orders for AT&T Ethernet WAN Alaska Service over Satellite will no longer be accepted. After September 30, 2018 new requests for physical changes to your service including the upgrade or downgrade of access/port speed, installation of new service, or moves to different service addresses will not be provisioned. AT&T will waive the Early Termination Fees (ETF) should a customer find an alternative solution before their contract expiration date.

¹ AT&T Ethernet WAN Alaska Service (EWA) transported over Satellite is offered by Alascom, Inc., d/b/a AT&T Alaska, and is available in the following Alaska villages: Ambler, Anaktuvuk Pass, Atka, Atkasuk, Barrow, Bethel, Buckland, Deering, Dillingham, Fort Yukon, Kaktovik, Kiana, King Salmon, Kivalina, Kobuk, Kotzebue, Nikolski, Noatak, Nome, Noorvik, Point Hope, Point Lay, Saint George, Selawik, Shageluk, Unalaska, and Wainwright.

To help ensure service continuity, it is recommended that you transition your AT&T Ethernet WAN Alaska Service over Satellite to an alternate provider well before June 30, 2019.

Your AT&T Service Representative will be in contact soon to begin discussions regarding alternate solutions that meet your business communication needs.

We appreciate your understanding and look forward to serving your future business needs.

Sincerely, Elena Walukiewicz AT&T Alaska Senior Product Manager 505 E. Bluff Drive Anchorage, AK 99501

AT&T is required by the FCC to provide the following statement:

The FCC will normally authorize this proposed discontinuance of service (or reduction or impairment) unless it is shown that customers would be unable to receive service or a reasonable substitute from another carrier or that the public convenience and necessity is otherwise adversely affected. If you wish to object, you should file your comments as soon as possible, but no later than 15 days after the Commission releases public notice of the proposed discontinuance. You may file your comments electronically through the FCC's Electronic Comment Filing System using the docket number established in the Commission's public notice for this proceeding, or you may address them to the Federal Communications Commission, Wireline Competition Bureau, Competition Policy Division, Washington, DC 20554, and include in your comments a reference to the section 63.71 Application Alascom, Inc. d/b/a AT&T Alaska. Comments should include specific information about the impact of this proposed discontinuation (or reduction or impairment) upon you or your company, including any inability to acquire reasonable substitute service.

Letter of Support



August 30, 2019

To Whom It May Concern,

I am writing to express my support for TelAlaska's C-Band spectrum license currently being considered for approval for their Seward teleport.

Arctic Slope Telephone Association Cooperative, Inc. (ASTAC) provides landline, long distance, fixed and mobile broadband connectivity, and 4G wireless voice and data services to its owner/members across Alaska's North Slope. ASTAC serves a roadless geographic region of over 91,000 square miles. Of the nine markets we serve, four are dependent on satellite backhaul for the entirety of their connectivity. The vast majority of the traffic originating from these locations is destined for Anchorage where our core network is located. These four remote villages are: Point Lay, Atqasuk, Anaktuvuk Pass, and Kaktovik (shown below).



In August of 2018, ASTAC was notified by AT&T Alascom, our current provider, that their satellite-based Ethernet products would be sunset by June 30, 2019, after deliberations we were able to extend the deadline to 12/31/19. The only alternative provided was to regress our network back to TDM/T1 transport at a cost of over \$10,000/Mbps, or approximately 6 times the current rates. This was quickly found to be cost prohibitive and would push ASTAC back generations, technically speaking.

ASTAC has chosen TelAlaska as our partner and have accelerated a series of projects to install new ground stations and equipment at these four locations before winter arrives. None of these sites are road accessible and the logistics for the builds in the short timeframe is challenging at best. These projects are currently underway

and expected to be completed within the next 30 days. Without a working downlink in Seward we cannot begin testing and integration work to maintain our services.

I encourage you to expedite your approval of TelAlaska's licenses. Without immediate resolution, ASTAC customers are facing near term service outages and long term, ASTAC would be forced to purchase costly circuits back to Alaska, which would lead to added latency to the services we provide and increased consumer pricing.

Respectfully submitted,

Jens Laipenieks

CEO & General Manager
Arctic Slope Telephone Association Cooperative, Inc.

P (907) 564-2652 C (907) 244-2502





March 29, 2019

TEL-ALASKA NETWORKS Dave Goggins 201 E 56th AVE Suite 200 Anchorage, AK 99518

Notice of Price Change for US Domestic Satellite IOCs in Alaska, Effective July 1, 2019

Thank you for using AT&T's US Domestic Satellite Inter-Office Channels (IOCs) in Alaska provided through the AT&T Bandwidth Services (BWS) Service Guide.¹ Our records indicate that either: (i) you currently receive US Domestic Satellite IOCs in Alaska on a month-to-month basis, or (ii) your current term agreement for the service will have expired by July 1, 2019 and you will have moved to a month-to-month arrangement by that date.

This letter provides notice, in accordance with our agreement, that on July 1, 2019, the monthly charges for your US Domestic Satellite IOCs in Alaska will be changed to the following rates, depending on the speed(s) you purchase:²

Speed	New Monthly Charge as of July 1, 2019
VG IOC	\$8,999.00
DS0 (9.6 kbps)	\$7,055.00
DS0 (56/64 kbps)	\$8,999.00
FT1 (128 kbps)	\$13,433.00
FT1 (192 kbps)	\$16,303.00
FT1 (256 kbps)	\$21,731.00
FT1 (320 kbps)	\$26,423.00
FT1 (384 kbps)	\$32,604.00
FT1 (448 kbps)	\$34,199.00
FT1 (512 kbps)	\$35,797.00
FT1 (576 kbps)	\$37,396.00
FT1 (640 kbps)	\$39,001.00
FT1 (704 kbps)	\$39,802.00
FT1 (768 kbps)	\$49,440.00
FT1 (1024 kbps)	\$65,921.00
T1	\$14,656.77

¹ The BWS Service Guide is found at http://serviceguidenew.att.com/sg_flashPlayerPage/BWS.

² These new monthly charges reflect the rates currently listed in the BWS Service Guide.

Your AT&T account representative is available to assist you with any questions regarding this notice. We value your business and want to be sure you are kept aware of developments affecting your service.

Sincerely,

Elena Walukiewicz Sr. Product Marketing Manager AT&T Business Services

DECLARATION OF DAVID J. GOGGINS

I, David J. Goggins, hereby declare, to the best of my knowledge and under penalty of perjury, as follows:

- 1. I am the President and General Manager of TelAlaska, Inc.
- 2. I have reviewed the forgoing letter and except for those facts the truth of which official notice may be taken, I hereby certify that the facts set forth therein are true and correct to the best of my knowledge.

David J. Goggins

President and General Manager

Date: Sept 6, 2019

TELALASKA CELLULAR, INC. 201 E 56th Avenue Anchorage, AK 99518

October 11, 2019

Marlene H. Dortch, Secretary
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: TelAlaska Cellular, Inc.

Request for Special Temporary Authority

Dear Ms. Dortch:

TelAlaska Cellular, Inc. ("TelAlaska") hereby requests, pursuant to Section 25.120 of the Commission's Rules, Special Temporary Authority ("STA") effective Friday, October 4, 2019 for a period of 180 days to construct and operate a new satellite earth station in the 3.7-4.2 GHz band at Seward, Alaska (the "Teleport") pending formal action on its application for regular authority under Call Sign E190040 (File Nos. SES-LIC-20181031-03653, SES-AMD-20190222-00183 and SES-AMD-INTR2019-00452).

In support hereof, the following is shown:

TelAlaska provides telecommunications services throughout the State of Alaska to twenty six $(26)^2$ remote Alaskan communities ranging from the North Slope Borough to the Aleutian Islands including: Unalaska, Cold Bay, King Cove, Sand Point, Port Lions. Dillingham, Saint Paul, Iliamna, Saint Michael, Stebbins, Shaktoolik, Koyuk, Elim, Golovin, White Mountain, Teller, Brevig Mission, Wales, Little Diomede, Shishmaref, Galena, Fort Yukon, Anaktuvuk Pass, Point Lay, Atqasuk, Kaktovik, either as the direct carrier to the end user or as a carrier's carrier which provides transport of traffic for that carrier to its subscribers. The 498 customers of the Tribal Lands of Anaktuvuk Pass, Atqasuk, Kaktovik and Point Lay rely on AT&T's AMC-8 satellite for critical

¹ See Public Notice entitled "Satellite Communications Services – re: Satellite Radio Applications Accepted for Filing, (Report No. SES-02142, p. 5) (March 6, 2019); see also Public Notice entitled "Satellite Communications Services – re: Satellite Radio Applications Accepted for Filing, (Report No. SES-02139, p. 1) (February 27, 2019).

² Unalaska, Cold Bay, King Cove, Sand Point, Port Lions. Dillingham, Saint Paul, Iliamna, Saint Michael, Stebbins, Shaktoolik, Koyuk, Elim, Golovin, White Mountain, Teller, Brevig Mission, Wales, Little Diomede, Shishmaref, Galena, Fort Yukon, Anaktuvuk Pass, Point Lay, Atqasuk, Kaktovik.

telecommunications services which is scheduled to be decommissioned in December, 2019. As a result, these remote Alaskan villages will lose access to cellular, broadband and other advanced telecommunications services — which in some cases will cut residents and businesses off from basic telecommunications that are taken for granted in the lower 48 United States. Therefore, STA to commence operation is critically necessary to ensure continued service to these remote Alaskan villages due to: (i) the unique operational challenges in the remote Alaskan communities; (ii) the lack of suitable, cost-effective alternatives to reliably meet the telecommunications needs of these remote Alaskan communities; (iii) improvements in service reliability and quality and reduced latency that would be provided by the Teleport; (iv) the importance of crucial communications services that TelAlaska provides to remote Alaskan communities and (v) the impending decommissioning of AT&T's AMC-8 satellite in December, 2019 that will result in a loss of critical telecommunications services for these isolated Tribal Lands communities.³

A grant of STA will permit TelAlaska to provide reliable broadband internet and communications services for critical community services (such as schools, libraries, healthcare institutions and patients, emergency first responders (FirstNet,⁴ police, fire and EMS), as well as residential and business customers in some of our nation's most remote, harsh and wilderness like locations. It is well known that Alaska presents unique challenges in providing broadband services to its remote and rural population.⁵ The extreme isolation of these many communities requires the use of expensive satellite-based communications systems since it is rarely feasible, if not virtually impossible, to construct and operate terrestrial based systems over long distances across the state.

Operation of the proposed Alaska-based teleport would serve the public interest by preventing a loss of critical telecommunications services. In this regard:

 The Teleport (a) is necessary to serve the needs of Alaska Tribal Land providers prior to the decommissioning of AT&T's AMC-8 satellite later this year in December 2019⁶; (b) will expand the broadband capacity for TelAlaska's current

³ See Appendix A to September 6, 2019 TelAlaska Letter (copy attached), Letter of Support from Arctic Slope Telephone Association Cooperative, Inc. dated August 30, 2019.

⁴ FirstNet is the First Responder Network Authority of the United States established by the Middle Class Tax Relief and Job Creation Act of 2012 as an independent authority within the US Department of Commerce. It is chartered to ensure the building, deployment and operation of the nationwide broadband network that equips first responders to protect life and property throughout the United States.

⁵ See Connect America Fund et al., Report and Order and Further Notice of Proposed Rule Making, 31 FCC Rcd 10139, 10162-63, ¶72 (2016) (quoting Connect America Fund et al., report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17829 (2011)) (noting unique conditions in Alaska, including "its remoteness, lack of roads, challenges and costs associated with transporting fuel, lack of scalability per community, satellite and backhaul availability, extreme weather conditions, challenging topography, and short construction season").

⁶ See Appendix A to September 6, 2019 TelAlaska Letter (copy attached), Notice of Discontinuance.

customers and (c) in doing so, will offer the opportunity for Alaska Tribal Land providers to develop and support critical services.

2. The Teleport is crucial for state-wide interoperable broadband public safety communications and will meet FirstNet's requirement that TelAlaska terminate its

traffic in Anchorage.

3. The Teleport will reduce the network's overall latency by up to 90 ms and increase capacity from 108 MHz/360Mbps to 288MHz/960Mbps. This reduction in latency by terminating traffic in Seward will improve service quality for real time applications for customers such as telehealth, long-distance, learning services, etc. by eliminating (or substantially reducing) delays associated with two-way communications. The increase in capacity will provide higher speeds to customers.

4. The availability of a local teleport in Seward, Alaska would (a) allow users to receive services that they might otherwise not have access to with improved quality due to lower latency and more capacity and (b) reduce the future cost of

providing service to the public.

5. The Teleport will provide broadband and critical telecommunications services to the 498 customers of the Tribal Lands of Anaktuvuk Pass, Atqasuk, Kaktovik and Point Lay that will otherwise lose these vital telecommunications services by the end of the year due to the decommissioning of AT&T's AMC-8 satellite.

There is no dispute that the circumstances in Alaska are vastly different from the rest of the United States, given its distance from the lower 48, its remoteness in general and its extremely harsh winters. As a result, Alaska lacks terrestrial middle-mile infrastructure resources and bandwidth capacity. TelAlaska and other Alaska providers rely on satellite bandwidth for middle-mile backhaul. TelAlaska is proposing to operate the 3.7 GHz Band Teleport as its telecommunications hub for approximately twenty six (26) remote communities throughout Alaska ranging from the North Slope Borough to the Aleutian Islands. See Appendix A to September 6, 2019 TelAlaska letter (copy attached). The communities are remote, often separated by hundreds of miles of rugged, undeveloped terrain and, in some cases, are located on islands in the Bering Sea – far from the Alaskan mainland. As a result, terrestrial transport solutions are impracticable and uneconomical. The Teleport's operations will extend the services to customers in remote Alaska with only a de minimus change to the existing landscape of authorized operations in the 3.7-4.2 GHz band

The Commission can take official notice that certain conditions unique to Alaska make the provision of telecommunications services there particularly difficult. In particular, challenges such as "[Alaska's] remoteness, lack of roads, challenges and costs associated with transporting fuel, lack of scalability per community, satellite and backhaul availability, extreme weather conditions, challenging topography, and short construction

⁷ See fn 5 supra.

season" all contribute to this difficulty. 8 Only three (3) of the communities served by TelAlaska are accessible by roads. For the remainder of its communities, TelAlaska must first travel by large, commercial aircraft to a regional center (e.g., Nome, AK), and then transfer to a single engine commercial or charter aircraft to reach its village communities. Transporting equipment and supplies is also a logistical challenge. Due to the long winter and extreme cold, rivers freeze so barges cannot deliver needed construction, maintenance and basic goods until the few summer months that river and ocean transportation routes are open. Even "truck rolls" within a community can present challenges. For example, in many locations, a "truck roll" is accomplished with a 4-wheeler in the summer months or a snowmobile in the winter months.

Because of these harsh conditions and wide expanses that must be covered, satellite service is the primary (if not the exclusive) means for providing effective telecommunications services to the remote Alaska native villages. The communities that will be served by the new TelAlaska Teleport have no access to any intrastate or intercommunity road systems or fiber backhaul. These villages are isolated from (i) population centers within Alaska, (ii) one another, (iii) commercial power grids and (iv) basic infrastructure that is necessary to connect them to telecommunications and broadband networks. For example, the nearest access to fiber for any of these communities that would be served by TelAlaska's Teleport would be Teller/Brevig Mission, which is approximately 70 miles from Nome. Unalaska's nearest fiber access is Anchorage, a distance of approximately 800 miles that would require subsea fiber and construction of terrestrial fiber across hundreds of miles of rugged, uninhabited (and sometime "protected" terrain. Terrain.

Use of the C-Band is critical for the provision of telecommunications services in Alaska. This is because, as the FCC has previously recognized, the Ku-and Ka-bands do not provide reliable alternatives in many of these remote Alaskan communities due to

https://www.rd.usda.gov/files/ReConnect Program Section 106 EQ.pdf. As a result, construction of terrestrial transport facilities to remote Alaska native villages is simply not a viable, cost-effective solution.

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 TelAlaska recently analyzed a construction project of fiber backhaul from Nome to Teller and estimated project costs at \$5-6 million.

¹⁰ Izembek National Wildlife Refuge: https://www.aleutianseast.org/?SEC=F01C70F6-028E-4181-83DD-90BC0F27E9FE

Federal and state permitting processes also add time, complexity and expense to terrestrial construction projects. For example, the Alaska State Department of Natural Resources recommends applying for permits two years in advance of commencing construction. In a recent federal Rural Utility Service Reconnect program, the application process required multiple environmental permitting and impact analyses requirements such as floodplain analysis and mitigation, wetlands analysis and mitigation, threatened and endangered species analysis, community social, economic, historic impact study, national historic preservation act study, coastal zone and barriers and EPA review. See https://www.rd.usda.gov/files/ReConnect Program Section 106 FO.ndf. As a result, construction of terrestrial

propagation characteristics and the lack of satellite footprints on Northern Alaska. 12 In this regard, when compared with other satellite bands, the C-Band offers better performance, availability and coverage in Alaska's extreme northerly latitudes and harsh weather conditions – especially near and above the Arctic Circle¹³, where several remote villages that would be served by the TelAlaska Teleport are located. Furthermore, access to Ka-Band is not available in in these northern Alaska markets¹⁴ and none of the major Ka HTS operators have plans to launch any new satellites that would be able to serve Alaska in the foreseeable future.15

As demonstrated in its September 6, 2019 letter (copy attached for convenient reference), TelAlaska provides critical communications services to remote Native Alaskan villages, some of which would be lost or severely degraded, including:

- Reliable communication network for First Responders: The First Responder Network Authority (FirstNet) is a means for advancing the nationwide public safety broadband network improving communications to allow for improved public safety response. FirstNet and AT&T are leveraging private sector resources and infrastructure. 16 The Teleport will support FirstNet in providing access and transport between the remote communities and FirstNet's network switch at its hub location in Anchorage, Alaska.
- Mobile wireless voice and broadband service: C-Band satellite spectrum allows TelAlaska's cellular/rural wireless system to provide wireless services in thirteen (13) remote Tribal Lands communities on the Seward Peninsula serving populations ranging from smallest of 115 to largest of 563,17 five (5) remote Tribal Lands communities along the Aleutian Chain with a population of 108 up to 4,376, and two (2) remote Tribal Lands communities in Interior Alaska, Galena and Fort Yukon with populations of 470 and 583 respectively. This wireless service supports 911, subscriber authentication, voice, wireless data and similar elements.

¹² See GCI Order at ¶6 and ACI Order at ¶5.

¹³ See GCI Communication Corp., Notice of Ex Parte Communication -Expanding Flexible Use of the 3.7 to 4.2 GHz Band

GN Docket No. 18-122 (August 28, 2019)

¹⁴ Ka-Band is not proven in Northern part of Alaska and not viable near or above the Arctic Circle.

¹⁵ In this regard, TelAlaska notes that both the Ka-Band and Ku-Band lack the atmospheric penetration capability of C-Band and are vulnerable to extended outages due to harsh weather conditions which make use of the Ka- and Ku-Bands unreliable. In this regard, TelAlaska previously deployed facilities operating in the Ku-Band to serve the community of Wales, which is located in Northwest Alaska where the Bering Sea meets the Chukchi Sea. The high amount of precipitation and cloud coverage in Wales throughout the year interrupted the higher frequency wave length of the Ku-Band and created instability. As a result, TelAlaska was forced to deploy C-Band equipment in Wales in order to provide a more reliable and robust network to meet that community's critical communications needs - which clearly demonstrates why the Ka- and Ku-Bands are not suitable for use in these remote regions of

¹⁶ See The Network at: https://www.firstnet.gov/network

¹⁷ See U.S. Census Bureau American Factfinder, available at:

https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml

- Long-distance learning services: The remote Tribal Land island community of St Paul, approximately 350 miles from the Alaska mainland, with a population of 479, relies heavily on internet, video and other services via satellite. No terrestrial fiber network connects this rugged and remote island in the Bering Sea to the rest of the world. Satellite transport is the exclusive means to connect the community. TelAlaska supports other schools via the e-rate program over satellite in many of the remote communities that will be supported via the Teleport. Satellite service is the only method of communications in these isolated communities.
- Government services: Teleport will also be available to support:
 - Federal Aviation Administration's provision of critical weather and navigational data to aircraft flying in remote areas;
 - Bureau of Land Management's, National Forest Service's and National Park Service's communications in remote areas for fire protection and
 - Federal and University research teams working throughout the State for archeological surveys, animal migration studies and other programs.
- Telehealth services: Rural Alaska Native villages rely on critical telehealth services to support small clinics that are under-staffed with medical professionals. This project will help support the provision of healthcare services to these communities.
- Broadband on Tribal Lands: The isolated and remote communities on Alaska Native Lands throughout the state, where TelAlaska provides broadband via satellite, rely on numerous services, including ecommerce and access to government services, provided over the internet. Most communities are without roads beyond the community, and rural residents are unable to travel to regional hub communities or urban areas for their everyday needs. The Teleport will enable broadband internet to be brought to their homes.
- Business Services: Provide C-Band satellite service to business in community. For example in Unalaska (pop. 4,376) and King Cove (pop 938), seafood processors rely on satellite service in their daily transactions harvesting and selling seafood worldwide.

Conclusion

For the foregoing reasons, it is respectfully submitted that with the imminent decommissioning of the AMC-8 satellite, "there are extra ordinary circumstances requiring temporary operations in the public interest and that [any] delay in the institution of these temporary operations would seriously prejudice the public interest" since there are remote Alaskan areas that would lose telecommunications services. Accordingly, TelAlaska respectfully requests that the FCC promptly grant this request.

In accordance with Section 1.12 of the Commission's Rules, please direct any questions or correspondence regarding this filing to our counsel:

Richard D. Rubino, Esq. Blooston, Mordkofsky, Dickens, Duffy & Prendergast, LLP 2120 L Street, N.W., Suite 300 Washington, DC 20037 Tel. 202-828-5519

Email: rdr@bloostonlaw.com

Respectfully submitted,

TelAlaska Cellular, Inc.

David J. Goggins

President and General Manager

Attachment

TELALASKA CELLULAR, INC. 201 E 56th Avenue Anchorage, AK 99518

October 11, 2019

Marlene H. Dortch, Secretary
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: TelAlaska Cellular, Inc.

Request for Special Temporary Authority

Dear Ms. Dortch:

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1. The Teleport (a) is necessary to serve the needs of Alaska Tribal Land providers prior to the decommissioning of AT&T's AMC-8 satellite later this year in December 2019⁶; (b) will expand the broadband capacity for TelAlaska's current

³ See Appendix A to September 6, 2019 TelAlaska Letter (copy attached), Letter of Support from Arctic Slope Telephone Association Cooperative, Inc. dated August 30, 2019.

⁴ FirstNet is the First Responder Network Authority of the United States established by the Middle Class Tax Relief and Job Creation Act of 2012 as an independent authority within the US Department of Commerce. It is chartered to ensure the building, deployment and operation of the nationwide broadband network that equips first responders to protect life and property throughout the United States.

⁵ See Connect America Fund et al., Report and Order and Further Notice of Proposed Rule Making, 31 FCC Rcd 10139, 10162-63, ¶72 (2016) (quoting Connect America Fund et al., report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17829 (2011)) (noting unique conditions in Alaska, including "its remoteness, lack of roads, challenges and costs associated with transporting fuel, lack of scalability per community, satellite and backhaul availability, extreme weather conditions, challenging topography, and short construction season").

⁶ See Appendix A to September 6, 2019 TelAlaska Letter (copy attached), Notice of Discontinuance.

customers and (c) in doing so, will offer the opportunity for Alaska Tribal Land providers to develop and support critical services.

2. The Teleport is crucial for state-wide interoperable broadband public safety communications and will meet FirstNet's requirement that TelAlaska terminate its

traffic in Anchorage.

3. The Teleport will reduce the network's overall latency by up to 90 ms and increase capacity from 108 MHz/360Mbps to 288MHz/960Mbps. This reduction in latency by terminating traffic in Seward will improve service quality for real time applications for customers such as telehealth, long-distance, learning services, etc. by eliminating (or substantially reducing) delays associated with two-way communications. The increase in capacity will provide higher speeds to customers.

4. The availability of a local teleport in Seward, Alaska would (a) allow users to receive services that they might otherwise not have access to with improved quality due to lower latency and more capacity and (b) reduce the future cost of

providing service to the public.

5. The Teleport will provide broadband and critical telecommunications services to the 498 customers of the Tribal Lands of Anaktuvuk Pass, Atqasuk, Kaktovik and Point Lay that will otherwise lose these vital telecommunications services by the end of the year due to the decommissioning of AT&T's AMC-8 satellite.

There is no dispute that the circumstances in Alaska are vastly different from the rest of the United States, given its distance from the lower 48, its remoteness in general and its extremely harsh winters. As a result, Alaska lacks terrestrial middle-mile infrastructure resources and bandwidth capacity. TelAlaska and other Alaska providers rely on satellite bandwidth for middle-mile backhaul. TelAlaska is proposing to operate the 3.7 GHz Band Teleport as its telecommunications hub for approximately twenty six (26) remote communities throughout Alaska ranging from the North Slope Borough to the Aleutian Islands. See Appendix A to September 6, 2019 TelAlaska letter (copy attached). The communities are remote, often separated by hundreds of miles of rugged, undeveloped terrain and, in some cases, are located on islands in the Bering Sea – far from the Alaskan mainland. As a result, terrestrial transport solutions are impracticable and uneconomical. The Teleport's operations will extend the services to customers in remote Alaska with only a de minimus change to the existing landscape of authorized operations in the 3.7-4.2 GHz band

The Commission can take official notice that certain conditions unique to Alaska make the provision of telecommunications services there particularly difficult. In particular, challenges such as "[Alaska's] remoteness, lack of roads, challenges and costs associated with transporting fuel, lack of scalability per community, satellite and backhaul availability, extreme weather conditions, challenging topography, and short construction

⁷ See fn 5 supra.

season" all contribute to this difficulty. 8 Only three (3) of the communities served by TelAlaska are accessible by roads. For the remainder of its communities, TelAlaska must first travel by large, commercial aircraft to a regional center (e.g., Nome, AK), and then transfer to a single engine commercial or charter aircraft to reach its village communities. Transporting equipment and supplies is also a logistical challenge. Due to the long winter and extreme cold, rivers freeze so barges cannot deliver needed construction, maintenance and basic goods until the few summer months that river and ocean transportation routes are open. Even "truck rolls" within a community can present challenges. For example, in many locations, a "truck roll" is accomplished with a 4-wheeler in the summer months or a snowmobile in the winter months.

Because of these harsh conditions and wide expanses that must be covered, satellite service is the primary (if not the exclusive) means for providing effective telecommunications services to the remote Alaska native villages. The communities that will be served by the new TelAlaska Teleport have no access to any intrastate or intercommunity road systems or fiber backhaul. These villages are isolated from (i) population centers within Alaska, (ii) one another, (iii) commercial power grids and (iv) basic infrastructure that is necessary to connect them to telecommunications and broadband networks. For example, the nearest access to fiber for any of these communities that would be served by TelAlaska's Teleport would be Teller/Brevig Mission, which is approximately 70 miles from Nome. Unalaska's nearest fiber access is Anchorage, a distance of approximately 800 miles that would require subsea fiber and construction of terrestrial fiber across hundreds of miles of rugged, uninhabited (and sometime "protected" terrain. It

Use of the C-Band is critical for the provision of telecommunications services in Alaska. This is because, as the FCC has previously recognized, the Ku-and Ka-bands do not provide reliable alternatives in many of these remote Alaskan communities due to

https://www.rd.usda.gov/files/ReConnect Program Section 106 EQ.pdf. As a result, construction of terrestrial transport facilities to remote Alaska native villages is simply not a viable, cost-effective solution.

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 TelAlaska recently analyzed a construction project of fiber backhaul from Nome to Teller and estimated project costs at \$5-6 million.

¹⁰ Izembek National Wildlife Refuge: https://www.aleutianseast.org/?SEC=F01C70F6-028E-4181-83DD-90BC0F27E9FE

For example, the Alaska State Department of Natural Resources recommends applying for permits two years in advance of commencing construction. In a recent federal Rural Utility Service Reconnect program, the application process required multiple environmental permitting and impact analyses requirements such as floodplain analysis and mitigation, wetlands analysis and mitigation, threatened and endangered species analysis, community social, economic, historic impact study, national historic preservation act study, coastal zone and barriers and EPA review. See https://www.rd.usda.gov/files/ReConnect Program Section 106 FO ndf. As a result, construction of terrestrial

propagation characteristics and the lack of satellite footprints on Northern Alaska. 12 In this regard, when compared with other satellite bands, the C-Band offers better performance, availability and coverage in Alaska's extreme northerly latitudes and harsh weather conditions – especially near and above the Arctic Circle¹³, where several remote villages that would be served by the TelAlaska Teleport are located. Furthermore, access to Ka-Band is not available in in these northern Alaska markets14 and none of the major Ka HTS operators have plans to launch any new satellites that would be able to serve Alaska in the foreseeable future.15

As demonstrated in its September 6, 2019 letter (copy attached for convenient reference), TelAlaska provides critical communications services to remote Native Alaskan villages, some of which would be lost or severely degraded, including:

- Reliable communication network for First Responders: The First Responder Network Authority (FirstNet) is a means for advancing the nationwide public safety broadband network improving communications to allow for improved public safety response. FirstNet and AT&T are leveraging private sector resources and infrastructure. 16 The Teleport will support FirstNet in providing access and transport between the remote communities and FirstNet's network switch at its hub location in Anchorage, Alaska.
- Mobile wireless voice and broadband service: C-Band satellite spectrum allows TelAlaska's cellular/rural wireless system to provide wireless services in thirteen (13) remote Tribal Lands communities on the Seward Peninsula serving populations ranging from smallest of 115 to largest of 563,17 five (5) remote Tribal Lands communities along the Aleutian Chain with a population of 108 up to 4,376, and two (2) remote Tribal Lands communities in Interior Alaska, Galena and Fort Yukon with populations of 470 and 583 respectively. This wireless service supports 911, subscriber authentication, voice, wireless data and similar elements.

¹² See GCI Order at ¶6 and ACI Order at ¶5.

¹³ See GCI Communication Corp., Notice of Ex Parte Communication -Expanding Flexible Use of the 3.7 to 4.2 GHz Band

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¹⁴ Ka-Band is not proven in Northern part of Alaska and not viable near or above the Arctic Circle.

¹⁵ In this regard, TelAlaska notes that both the Ka-Band and Ku-Band lack the atmospheric penetration capability of C-Band and are vulnerable to extended outages due to harsh weather conditions which make use of the Ka- and Ku-Bands unreliable. In this regard, TelAlaska previously deployed facilities operating in the Ku-Band to serve the community of Wales, which is located in Northwest Alaska where the Bering Sea meets the Chukchi Sea. The high amount of precipitation and cloud coverage in Wales throughout the year interrupted the higher frequency wave length of the Ku-Band and created instability. As a result, TelAlaska was forced to deploy C-Band equipment in Wales in order to provide a more reliable and robust network to meet that community's critical communications needs - which clearly demonstrates why the Ka- and Ku-Bands are not suitable for use in these remote regions of

¹⁶ See The Network at: https://www.firstnet.gov/network

¹⁷ See U.S. Census Bureau American Factfinder, available at: https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml

- Long-distance learning services: The remote Tribal Land island community of St Paul, approximately 350 miles from the Alaska mainland, with a population of 479, relies heavily on internet, video and other services via satellite. No terrestrial fiber network connects this rugged and remote island in the Bering Sea to the rest of the world. Satellite transport is the exclusive means to connect the community. TelAlaska supports other schools via the e-rate program over satellite in many of the remote communities that will be supported via the Teleport. Satellite service is the only method of communications in these isolated communities.
- Government services: Teleport will also be available to support:
 - Federal Aviation Administration's provision of critical weather and navigational data to aircraft flying in remote areas;
 - Bureau of Land Management's, National Forest Service's and National Park Service's communications in remote areas for fire protection and
 - Federal and University research teams working throughout the State for archeological surveys, animal migration studies and other programs.
- Telehealth services: Rural Alaska Native villages rely on critical telehealth services to support small clinics that are under-staffed with medical professionals. This project will help support the provision of healthcare services to these communities.
- Broadband on Tribal Lands: The isolated and remote communities on Alaska
 Native Lands throughout the state, where TelAlaska provides broadband via
 satellite, rely on numerous services, including ecommerce and access to
 government services, provided over the internet. Most communities are without
 roads beyond the community, and rural residents are unable to travel to regional
 hub communities or urban areas for their everyday needs. The Teleport will enable
 broadband internet to be brought to their homes.
- Business Services: Provide C-Band satellite service to business in community. For example in Unalaska (pop. 4,376) and King Cove (pop 938), seafood processors rely on satellite service in their daily transactions harvesting and selling seafood worldwide.

Conclusion

For the foregoing reasons, it is respectfully submitted that with the imminent decommissioning of the AMC-8 satellite, "there are extra ordinary circumstances requiring temporary operations in the public interest and that [any] delay in the institution of these temporary operations would seriously prejudice the public interest" since there are remote Alaskan areas that would lose telecommunications services. Accordingly, TelAlaska respectfully requests that the FCC promptly grant this request.

In accordance with Section 1.12 of the Commission's Rules, please direct any questions or correspondence regarding this filing to our counsel:

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Respectfully submitted,

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David J. Goggins

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Attachment