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

December 16, 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 Extension of Special Temporary Authority
Domestic Satellite Earth Station E190040

Dear Ms. Dortch:

TelAlaska Cellular, Inc. ("TelAlaska") hereby requests, pursuant to Section 25.120(a) of the Commission's Rules, an extension of Special Temporary Authority ("STA") effective Sunday, December 22, 2019 for a period of 60 days in order to continue operation of Domestic Satellite Earth Station E190040 in the 3.7-4.2 GHz band at Seward, Alaska (the "Teleport") pending formal action on its application for regular authority under (File Nos. SES-LIC-20181031-03653, SES-AMD-20190222-00183 and SES-AMD-INTR2019-00452) and which is also assigned Call Sign E190040 in the Commission's International Bureau Filing System ("IBFS").[1]

This STA would be an extension of previously granted SES-STA-20191012-01305 issued by the International Bureau (IB) on October 22, 2019.

In support hereof, the following is shown:

On October 12, 2019, TelAlaska requested special temporary authority to operate a Teleport at Seward, Alaska, which was granted on October 22, 2019 under File No. SES-STA-20191012-01305.[2] Through use of the Seward Teleport, TelAlaska is providing

[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] *See* Public Notice entitled "Satellite Communications Services Information – re: Actions Taken (Report No. SES-02211, p.10) (October 23, 2019).

telecommunications services throughout the State of Alaska to twenty-six (26)[3] 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 had previously relied on AT&T's AMC-8 satellite for critical telecommunications services which is being decommissioned during the month of December, 2019. As a result, without continued access to the Seward Teleport, these remote Alaskan villages would lose access to cellular, broadband and other advanced telecommunications services – which in some cases would cut residents and businesses off from basic telecommunications that are taken for granted in the lower 48 United States. Therefore, an extension of STA to operate 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; and (iv) the importance of crucial communications services that TelAlaska provides to remote Alaskan communities. Because of the decommissioning of AT&T's AMC-8 satellite, a loss of the Seward Teleport would result in a loss of critical telecommunications services for these isolated Tribal Lands communities.[4]

A grant of STA extension will permit TelAlaska to continue providing reliable broadband internet and communications services for critical community services (such as schools, libraries, healthcare institutions and patients, emergency first responders (FirstNet,[5] 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.[6] The extreme isolation of these many communities requires the use of

[3] 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.

[4] *See* Appendix A to September 6, 2019 TelAlaska Letter, a copy of which was also submitted with the underlying request for STA. (copy attached), Letter of Support from Arctic Slope Telephone Association Cooperative, Inc. dated August 30, 2019.

[5] 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.

[6] *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

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.

Continued operation of TelAlaska's Seward Teleport will serve the public interest by preventing a loss of critical telecommunications services. In this regard:

1. The Teleport (a) is necessary to serve the needs of Alaska Tribal Land providers as a result of the decommissioning of AT&T's AMC-8 satellite [7]; (b) has expanded the broadband capacity for TelAlaska's current customers and (c) in doing so, provides 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 reduces 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 has improved 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 is providing higher speeds to customers.
4. The availability of a local teleport in Seward, Alaska has (a) allowed users to receive services that they might otherwise not have access to with improved quality due to lower latency and more capacity and (b) reduced the future cost of providing service to the public.
5. The Teleport is providing broadband and critical telecommunications services to the 498 customers of the Tribal Lands of Anaktuvuk Pass, Atqasuk, Kaktovik and Point Lay that would 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

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").

[7] *See* Appendix A to September 6, 2019 TelAlaska Letter, a copy of which was also submitted with the underlying request for STA.

Islands. *See* Appendix A to September 6, 2019 TelAlaska letter, a copy of which was also submitted with the underlying request for STA. 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 have extended 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.[8] 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.[9] 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 being 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.[10] Unalaska's nearest fiber access

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[8] *See* fn 5 *supra*.

[9] *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)).

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

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" [11]) terrain.[12]

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 propagation characteristics and the lack of satellite footprints on Northern Alaska.[13] 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 Circle,[14] 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 markets[15] 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.[16]

As demonstrated in its September 6, 2019 letter, a copy of which was submitted with the underlying request for STA, TelAlaska is providing 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

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

[12] 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; 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.

[13] *See GCI* Order at ¶6 and *ACI* Order at ¶5.

[14] 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)

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

[16] 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 Alaska.

safety broadband network improving communications to allow for improved public safety response. FirstNet and AT&T are leveraging private sector resources and infrastructure.[17] The Teleport supports 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,[18] 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.
- 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 are being supported via the Teleport. Satellite service is the only method of communications in these isolated communities.
- Government services: Teleport is also supporting:
    - 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 supports 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 enables broadband internet to be brought to their homes.

[17] *See* The Network at: https://www.firstnet.gov/network
[18] *See* U.S. Census Bureau American Factfinder, available at: https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml

- 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 decommissioning of the AMC-8 satellite, the public interest would be served by permitting TelAlaska to continue operation of its Teleport at Seward, Alaska since remote Alaskan areas would lose vital telecommunications services without this critical communications link. 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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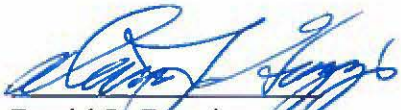
Respectfully submitted,

TelAlaska Cellular, Inc.



David J. Goggins
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