

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
STA for operation prior to pending license modification grant E891020

1. Applicant

Name: Denali 20020, LLC Phone Number: 509-689-1000
DBA Name: Fax Number: 509-689-3798
Street: 66 C Teleport Drive E-Mail: TOCC@usei-teleport.com
City: Brewster State: WA
Country: USA Zipcode: 98812
Attention: Mr Darryl White

60 days "With conditions"
File # SES-STA-20190502-00561
Call Sign E891020 Grant Date 05/16/2019
(or other identifier)
Term Dates: From: 05/15/2019 To: 07/14/2019
Approved: [Signature]



2. Contact	
Name: Mr Darryl White	Phone Number: 509-689-1000
Company: Denali 20020, LLC	Fax Number:
Street: 66 C Teleport Drive	E-Mail: TOCCC@usei-teleport.com
City: Brewster	State: WA
Country: USA	Zipcode: 98812 -
Attention:	Relationship:
(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)	
3. Reference File Number SESMODINTR201901183 or Submission ID	
4a. Is a fee submitted with this application?	
<input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114). <input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee <input type="radio"/> Other (please explain):	
4b. Fee Classification CGX - Fixed Satellite Transmit/Receive Earth Station	
5. Type Request	
<input checked="" type="radio"/> Use Prior to Grant <input type="radio"/> Change Station Location <input type="radio"/> Other	
6. Requested Use Prior Date 05/15/2019	
7. City Brewster	8. Latitude (dd mm ss.s h) 48 8 47.5 N

9. State WA	10. Longitude (dd mm ss.s h) 119 41 31.2 W
11. Please supply any need attachments. Attachment 1: Coordination report Attachment 2: Attachment 3:	
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.) <div style="border: 1px solid black; padding: 5px;"> <p>STA to operate modification of E891020 filed under SES-MOD-INTR2019-01183. The modification requests authority to operate the existing 9 meter in the Ku-band. The STA is needed to meet critical launch support timelines.</p> </div>	
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. <p style="text-align: right;">Yes <input checked="" type="radio"/> No <input type="radio"/></p>	
14. Name of Person Signing Darryl White	15. Title of Person Signing 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).	

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

Applicant: Denali 20020, LLC
Call Sign: E891020
File No.: SES-STA-20190502-00561
Special Temporary Authority (STA)



File # SES-STA-20190502-00561
Call Sign E891020 Grant Date 05/16/2019
(or other identifier)
Term Dates:
From: 05/15/2019 To: 07/14/2019
Approved: _____

Denali 20020, LLC is granted to operate under Special Temporary Authority for 60 days, beginning May 15, 2019, its existing 9-m antenna fixed earth station at geographic coordinates 48° 8' 47.5"N, 119° 41' 31.2"W in Brewster, WA to communicate with the Brazil licensed Amazonas 2 satellite (Call Sign S2793) at 61° W orbital location on the following on frequencies: 14000-14500 MHz (Earth-to-space), 10950-11200 MHz (space-to-Earth) and 11450-12200 MHz (space-to-Earth). Operations shall be under the following conditions:

1. Operations shall comply with Section 25.212(c)(2) of the Commission's rules, 47 C.F.R. § 25.212(c)(2).
2. Operations shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference.
3. The use of the band 10.7-11.7 GHz (space-to-Earth) and 12.75-13.25 GHz (Earth-to-space) by the Fixed-Satellite Service in the geostationary satellite orbit shall be limited to international systems, i.e. other than domestic systems. 47 CFR § 2.106, US Table of Frequency Allocations, International Footnote NG52.
4. In the event of any harmful interference under this grant of STA, Denali 20020, LLC must cease operations immediately upon notification of such interference, and must inform the Commission, in writing, immediately of such an event.
5. The licensee shall take all necessary measures to ensure that antennas in operation do not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 CFR 1.1307(b) and 1.1310 wherever such exposures might occur. Measures must be taken to ensure compliance with limits for both occupational/controlled exposure and for general population/ uncontrolled exposure, as defined in these rule sections. Compliance can be accomplished in most cases by appropriate restrictions such as fencing. Requirements for restrictions can be determined by predictions based on calculations, modeling or by field measurements. The FCC's OET Bulletin 65 (available on-line at www.fcc.gov/oet/rfsafety) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alert signs and protective equipment for workers.
6. Grant of this authorization is without prejudice to any determination that the Commission may make regarding Denali 20020, LLC's pending application FCC IBFS File number SES-MOD-20190425-00569 or future applications.
7. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Denali 20020, LLC's risk.

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.

60 days

"with conditions"



File # SES-STA-20190502-00561

Call Sign E891020 Grant Date 05/16/2019
(or other identifier)

Term Dates:

From: 05/15/2019 To: 07/14/2019

Approved: Paul E. [Signature]

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
Denali 20020, LLC
BREWSTER, WA
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
April 22, 2019

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1. CONCLUSIONS

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment. Further, there will be no restrictions of its operation due to interference considerations.

2. SUMMARY OF RESULTS

A number of great circle interference cases were identified during the interference study of the proposed earth station. Each of the cases, which exceeded the interference objective on a line-of-sight basis, was profiled and the propagation losses estimated using NBS TN101 (Revised) techniques. The losses were found to be sufficient to reduce the signal levels to acceptable magnitudes in every case.

3. SUPPLEMENTAL SHOWING

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations.

Coordination data for this earth station was sent to the below listed carriers with a letter dated 04/02/2019.

Company

AT&T Mobility Spectrum LLC - ID, MT, WY
AT&T Mobility Spectrum LLC - Washington
AT&T Mobility Wireless Ops Hldgs - WA
Accel Net, Inc.
Advanced Internet
Advantagecom Networks, Inc.
Avista Corporation
BNSF Railway Company
Bain, Robert B
Bearclaw, LLC
Benton County Emergency Services
Benton Rural Electric Association
Boeing Company
Bookbinder, LLC
Brigadier, LLC
Business Only Broadband, LLC
Cascade Natural Gas Corporation
Cellco Partnership - Oregon
Cellco Partnership - Washington
Cencor - Kitsap 911
CenturyTel of Washington, Inc.
Chelan County PUD #1
City of Post Falls Police Department
City of Tacoma / Tacoma Public Utilities
Clearwire Spectrum Holdings II, LLC
Clearwire Spectrum Holdings III, LLC
Clearwire Spectrum Holdings LLC
Columbia Rural Electric Association, Inc
Community Transit Snohomish County PTBA
Computer 5, Inc.
Cyberdyne Networks, Inc.
Darrington Internet Users Association
Day Management Corporation
Desert Winds Wireless
Eastside Public Safety Com Agency
EcliptixNet Broadband, Inc.
Electron Hydro LLC
Ellensburg Telephone Company
Energy Northwest
Everett Clinic
Everett MSO, Inc.

First Step Internet, LLC
Fisher Broadcasting, Inc. KOMO TV
Franklin County Sheriff
Frontier Communications Northwest Inc.
Hermiston, City of
Inland Cellular LLC
J & R Electronics Inc
J&R Electronics, Inc.
Jefferson Microwave, LLC
KGY, Inc.
King Broadcasting Company - KTVB TV
King County DOT Metro Transit Division
King, County of
Kootenai, County of
Leader Communications LLC
McDaniel Cellular Telephone Company
Medicine Wheel Website Design, Inc.
Microsoft
NCI Datacom, Inc.
New Cingular Wireless PCS - ID, WY
New Cingular Wireless PCS LLC-Washington
Newmax, LLC
Noel Communications, Inc.
Northwest Open Access Network
Northwest Pipeline GP
Olympic Wireless, LLC
PacifiCorp
Pacific Public Media
Pass Word, Inc.
Pick Two LLC
Pierce County
Pierce Transit
PocketiNet Communications Inc.
Port of Seattle
Ptera Wireless, Inc.
Public Util Dist. #1 of Snohomish County
Public Utility District No 1 of Okanogan
Puget Sound Energy, Inc
Quicketel Internet
Qwest Corporation
RSN Wireless, LLC
Rivercom 911
Seattle City Light
Seattle FCC License Sub, LLC
Seattle SMSA Limited Partnership
Seattle's Best Internet, LLC
Seattle, City of
Sinclair Radio of Seattle Licensee, LLC
Skotdal Brothers LLC (c/o CSI)
Snohomish County Emergency Radio System
Spectrum Communications Inc
Spectrum Networks Inc. - T
Spokane Regional Emergency Communication
Spokane Tribe Telecommunications Exchang
Sprint Spectrum L.P.
Sprintcom, Inc

St. Anthony Hospital
Startouch, Inc.
Stevens County Sheriff's Office
Summit Towers LLC
Sunheaven Farms, LLC
Symplified Technologies, LLC
T-Mobile Lic LLC - Voicestream PCS BTA I
T-Mobile License LLC
THE Corporation
Thurston 9-1-1 Communications
Towerstream Corp.
USCOC of Richland, Inc.
Union Pacific Railroad Company
United Telephone Co. of the Northwest
VelociMAX Wireless
Verizon Wireless (VAW) LLC - (WA)
Verizon Wireless (VAW) LLC - Idaho
Verizon Wireless (VAW) LLC -CO/ID/MT/WY
Verizon Wireless (VAW) LLC-Portland, OR
Warden Hutterian Brethren Inc
Washington Broadband, Inc.
Washington State Dept of Natural Resourc
Washington State of Dept of Transportat
Washington, State of
Western Sub-RSA LTD Partnership
Whitman County Fire District #11
Wind Wireless, Inc.
Wired or Wireless, Inc.
Yakima City Washington
Yakima MSA Limited Partnership

4. EARTH STATION COORDINATION DATA

This section presents the data pertinent to frequency coordination of the proposed earth station that was circulated to all carriers within its coordination contours.

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

Date: 04/22/2019
Job Number: 190402COMSGE02

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign: E891020
Licensee Code: DENALI
Licensee Name: Denali 20020, LLC

Site Information BREWSTER, WA

Venue Name:
Latitude (NAD 83): 48° 8' 47.5" N
Longitude (NAD 83): 119° 41' 31.2" W
Climate Zone: A
Rain Zone: 5
Ground Elevation (AMSL): 377.04 m / 1237.0 ft

Link Information

Satellite Type: Geostationary
Mode: TR - Transmit-Receive
Modulation: Digital
Satellite Arc: 53° W to 186° West Longitude
Azimuth Range: 107.8° to 251.9°
Corresponding Elevation Angles: 6.7° / 6.9°
Antenna Centerline (AGL): 6.1 m / 20.0 ft

Antenna Information

Manufacturer: Vertex
Model: 9 meter
Gain / Diameter: 59.2 dBi / 9.0 m
3-dB / 15-dB Beamwidth: 0.20° / 0.38°

Receive - FCC32

Transmit - FCC32

Manufacturer	Vertex	Vertex	
Model	9 meter	9 meter	
Gain / Diameter	59.2 dBi / 9.0 m	60.4 dBi / 9.0 m	
3-dB / 15-dB Beamwidth	0.20° / 0.38°	0.16° / 0.32°	
Max Available RF Power (dBW/4 kHz)		-14.0	
(dBW/MHz)		10.0	
Maximum EIRP (dBW/4 kHz)		46.4	
(dBW/MHz)		70.4	
Interference Objectives:	Long Term	-156.0 dBW/MHz 20%	-154.0 dBW/4 kHz 20%
	Short Term	-146.0 dBW/MHz 0.01%	-131.0 dBW/4 kHz 0.0025%

Frequency Information

Emission / Frequency Range (MHz)	Receive 11.0 GHz	Transmit 14.0 GHz
	1M00G7D - 72M0G7W / 10950.0 - 11200.0	1M00G7D - 72M0G7W / 14000.0 - 14500.0
	1M00G7D - 72M0G7W / 11450.0 - 12200.0	

Max Great Circle Coordination Distance	468.7 km / 291.2 mi	224.2 km / 139.3 mi
Precipitation Scatter Contour Radius	403.4 km / 250.6 mi	100.0 km / 62.1 mi

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

Coordination Values

BREWSTER, WA

Licensee Name	Denali 20020, LLC		
Latitude (NAD 83)	48° 8' 47.5" N		
Longitude (NAD 83)	119° 41' 31.2" W		
Ground Elevation (AMSL)	377.04 m / 1237.0 ft		
Antenna Centerline (AGL)	6.1 m / 20.0 ft		
Antenna Model	Vertex 9 meter		
Antenna Mode	Receive 11.0 GHz		Transmit 14.0 GHz
Interference Objectives:	Long Term	-156.0 dBW/MHz 20%	-154.0 dBW/4 kHz 20%
	Short Term	-146.0 dBW/MHz 0.01%	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power			-14.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 11.0 GHz		Transmit 14.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.81	107.70	-10.00	191.65	-10.00	100.00
5	0.89	102.73	-10.00	187.66	-10.00	100.00
10	0.71	97.75	-10.00	196.39	-10.00	100.00
15	1.23	92.78	-10.00	174.05	-10.00	100.00
20	1.81	87.80	-10.00	152.29	-10.00	100.00
25	0.54	82.84	-10.00	204.81	-10.00	100.00
30	0.54	77.87	-10.00	204.87	-10.00	100.00
35	0.72	72.89	-10.00	195.96	-10.00	100.00
40	1.21	67.90	-10.00	174.78	-10.00	100.00
45	1.57	62.91	-10.00	159.93	-10.00	100.00
50	1.49	57.94	-10.00	162.40	-10.00	100.00
55	1.85	52.95	-10.00	150.85	-10.00	100.00
60	1.73	47.99	-10.00	154.54	-10.00	100.00
65	2.12	42.99	-8.83	148.95	-8.83	100.00
70	2.17	38.02	-7.50	154.34	-7.50	100.00
75	2.43	33.04	-5.97	155.44	-5.97	100.00
80	2.63	28.06	-4.20	159.75	-4.20	100.00
85	2.56	23.14	-2.11	175.83	-2.11	100.00
90	2.77	18.20	0.50	184.39	0.50	100.00
95	2.88	13.33	3.88	198.41	3.88	100.00
100	2.69	8.75	8.46	222.28	8.46	100.00
105	2.37	5.12	14.26	264.92	14.26	117.58
110	2.24	4.95	14.64	424.56	14.64	192.00
115	2.24	7.95	9.49	238.26	9.49	103.48
120	2.44	10.83	6.13	215.68	6.13	100.00
125	2.66	13.59	3.67	202.05	3.67	100.00
130	1.71	17.18	1.13	208.88	1.13	100.00
135	0.95	20.50	-0.79	222.31	-0.79	104.53
140	0.44	23.46	-2.26	244.43	-2.26	124.68
145	0.29	25.93	-3.34	254.00	-3.34	132.49
150	0.00	28.31	-4.30	258.30	-4.30	137.31
155	0.00	30.17	-4.99	254.84	-4.99	135.30
160	0.00	31.76	-5.55	252.11	-5.55	133.73
165	0.00	33.03	-5.97	250.04	-5.97	132.56
170	0.00	33.96	-6.27	248.59	-6.27	131.74
175	0.00	34.52	-6.45	247.73	-6.45	131.26
180	0.00	34.71	-6.51	247.45	-6.51	131.10
185	0.00	34.52	-6.45	247.73	-6.45	131.26

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

Coordination Values

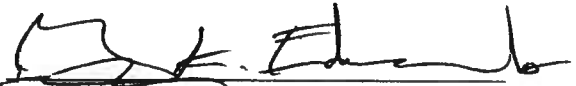
BREWSTER, WA

Licensee Name	Denali 20020, LLC		
Latitude (NAD 83)	48° 8' 47.5" N		
Longitude (NAD 83)	119° 41' 31.2" W		
Ground Elevation (AMSL)	377.04 m / 1237.0 ft		
Antenna Centerline (AGL)	6.1 m / 20.0 ft		
Antenna Model	Vertex 9 meter		
Antenna Mode	Receive 11.0 GHz	Transmit 14.0 GHz	
Interference Objectives:	Long Term	-156.0 dBW/MHz 20%	-154.0 dBW/4 kHz 20%
	Short Term	-146.0 dBW/MHz 0.01%	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power			-14.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 11.0 GHz		Transmit 14.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	33.96	-6.27	248.59	-6.27	131.74
195	0.00	33.03	-5.97	250.04	-5.97	132.56
200	0.00	31.76	-5.55	252.11	-5.55	133.74
205	0.00	30.18	-4.99	254.84	-4.99	135.30
210	0.00	28.31	-4.30	258.30	-4.30	137.31
215	0.00	26.18	-3.45	262.59	-3.45	139.85
220	0.00	23.84	-2.43	267.86	-2.43	143.01
225	0.00	21.29	-1.20	274.35	-1.20	146.98
230	0.00	18.59	0.27	282.38	0.27	151.99
235	0.00	15.73	2.08	292.55	2.08	158.49
240	0.21	12.60	4.49	302.93	4.49	168.14
245	0.38	9.41	7.66	304.18	7.66	161.35
250	0.47	6.72	11.32	468.66	11.32	224.23
255	2.06	5.76	12.98	264.47	12.98	118.99
260	1.81	9.57	7.48	238.14	7.48	106.10
265	2.41	13.84	3.47	203.69	3.47	100.00
270	3.15	18.48	0.33	174.55	0.33	100.00
275	3.57	23.33	-2.20	148.33	-2.20	100.00
280	3.36	28.31	-4.30	142.51	-4.30	100.00
285	3.16	33.29	-6.06	138.63	-6.06	100.00
290	3.16	38.26	-7.57	132.18	-7.57	100.00
295	1.94	43.33	-8.92	153.38	-8.92	100.00
300	1.72	48.31	-10.00	155.06	-10.00	100.00
305	2.17	53.25	-10.00	142.68	-10.00	100.00
310	1.91	58.24	-10.00	149.14	-10.00	100.00
315	1.89	63.21	-10.00	149.73	-10.00	100.00
320	2.11	68.18	-10.00	143.88	-10.00	100.00
325	2.11	73.16	-10.00	144.04	-10.00	100.00
330	2.40	78.14	-10.00	137.58	-10.00	100.00
335	1.91	83.13	-10.00	149.16	-10.00	100.00
340	1.26	88.11	-10.00	172.95	-10.00	100.00
345	0.69	93.08	-10.00	197.41	-10.00	100.00
350	0.35	98.05	-10.00	216.98	-10.00	111.42
355	0.00	103.01	-10.00	231.37	-10.00	123.34

5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, AND THAT IT IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: 

Gary K. Edwards
Senior Manager
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147

DATED: April 22, 2019