

Prepared By

COMSEARCH

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

Prepared For

Denali 20020 LLC
Brewster, Washington

Temporary Transmit-Only Earth Station
Operation Dates: 12/01/2017 - 03/01/2018

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. Verbal and written coordination was conducted with the below listed carriers on October 10, 2017.

Company

3G Wireless, LLC
AERIAL VIDEO SYSTEMS
Alascom Inc
Ascent Media Network Services, LLC
AT&T Mobility Wireless Ops Hldgs - WA
AT&T Mobility Wireless Ops Hldgs Inc -OR
Avista Corporation
Bates Technical College
Bearclaw, LLC
Bellsouth Telecommunications, Inc.
Benton County Emergency Services
Benton, County of
BNSF Railway Company
Boeing Company
Boingo Wireless, Inc.
Bookbinder, LLC
Borgeson, Tom R.
Brigadier, LLC
Broadcast Sports Inc.
Carolina Telephone and Telegraph Co
Casper, John
Cellco Partnership - Washington
CenturyTel of the Southwest, Inc.
Chelan County PUD #1
Chicago Comnet Corp
Cincinnati Bell Wireless LLC
Citicasters Licenses, Inc.
City of Portland
City of Tacoma / Tacoma Public Utilities
Citywide News Network, Inc.
Clackamas C800 Radio Group
Clark Communications, Inc
Clark, County of WA (Emergency Services)

Cohen, Elena
Columbia 911 Communications Dist
Community Transit Snohomish County PTBA
Cowboys Stadium LP
Cowlitz, County of
Crista Ministries
DCI II, INC.
Direct Broadcast Services, Inc.
Eastside Public Safety Com Agency
Federal Communication Commission
Franklin County Sheriff
Friends of KSPS
Frontier California Inc.
Frontier Communications Northwest Inc.
Global Telecom & Technology Americas, In
Goodyear Tire & Rubber Company
GW Networks
Hallco Unlimited, Inc.
Hawaiian Telcom, Inc.
Heiden, William
HF Enterprises, Inc
Idaho Power Company
Illinois Bell Telephone Company
Indiana Bell Telephone Company
Information & Display Systems, Inc.
Information Super Station, LLC
Inland Cellular LLC
International Communications Group, Inc.
Ion Media License Company, LLC
Ion Media Spokane License, Inc.
Island County Emergency Svcs Comm Cntr
Jefferson, County Of
Kentucky RSA #3 Cellular General Partner
Kentucky RSA #4 Cellular General Partner
KHQ, Incorporated
KIMA-TV/Fisher Broadcasting
King Broadcasting Company
King Broadcasting Company - KREM TV
King County DOT Metro Transit Division
King, County of
KIRO-TV, Inc
Kittcom
Klickitat, County of
KPTV-KPDX Broadcasting Corporation
Lewis County of
Life of Victory TV, Inc (KVBI-CD)
McDaniel Cellular Telephone Company
MERCURY COMMUNICATIONS
Michigan Bell Telephone Company
Moreen, Steven K
Mount Baker Ski Area, Inc
Mountain Licenses, L.P.
Multi Agency Communications Center
Navajo Communications Company
New Cingular Wireless PCS - ID, WY
New Cingular Wireless PCS LLC -OR Region

New Cingular Wireless PCS LLC-Washington
NEW ENGLAND DIGITAL DISTRIBUTION, INC.
NEW ENGLAND SATELLITE SYSTEMS INC
NEXSTAR BROADCASTING, INC.
Nextel License Holdings 4 Inc.
Nextel of California Inc.
Nextel West Corporation
Noel Communications, Inc
Northwest Pipeline GP
NorthWest Suburbs Community Access Corp
NSM Surveillance
NW Natural Gas Company
Ohio Bell GTelephone Company
Olympic Wireless, LLC
Onboard Images
Oregon Public Broadcasting (KOPB)
Oregon Public Broadcasting (KRBM)
Oregon RSA #2, Inc.
Oregon State
Oregon State (Osp)
Oregon, State of (ODOT)
Ota Broadcasting (Sea), LLC
Pacific Bell Tel Com dba AT&T California
Pacific Wireless Systems LLC
PacifiCorp
Penn Service Microwave Co., Inc.
Pierce County
Pierce Transit
Plateau Telecommunications, Inc.
Plum TV, LLC
Port of Seattle
Portland General Electric
Production & Satellite Services, Inc.
Public Util Dist. #1 of Snohomish County
Public Utility Dist #1 of Douglas County
Public Utility Dist #1 of Lewis County
Public Utility Dist #2 of Grant County
Puget Sound Energy, Inc
Quick Link Connections Inc.
Qwest Corporation
Radiofone, Inc.
Randy Hermes Production
RCC Minnesota Inc. - MN NE ND SD
RCC Minnesota, Inc - Washington/Oregon
Remote Broadcasts, Inc.
REMOTE FACILITIES CONSULTING SERVICES
RF Central, LLC
RF Film, Inc
Rivercom 911
Rsn Wireless, LLC
Sander Operating Co. III LLC
Seattle City Light
Seattle Public Schools
Seattle SMSA Limited Partnership
Seattle, City of
Selahv Farms, LLC

Silke Communications, Inc.
Sinclair Lewiston Licensee, LLC - WA
Sinclair Portland Licensee, LLC
Sinclair Seattle Licensee, LLC
Sinclair Yakima Licensee, LLC (WA)
Skagit 911
Skyline Tower LLC
Southwestern Bell Telephone L.P.
Speedshotz, Inc
Spokane Regional Emergency Communication
Spokane Television Inc.
St. John Cooperative Telephone & Tel Co
Startouch, Inc.
State Board of Education State of Idaho
State of Idaho
Thurston 9-1-1 Communications
T-Mobile License LLC
Trans Canada GTN System
Tri County Metro Transit Dist of Oregon
Tribune Broadcasting Seattle, LLC
Trinity Broadcasting of Washington
Trinity Christian Center of Santa Ana
TTWN Networks, LLC
Umatilla Morrow Radio & Data District
Umatilla, County of
Union Pacific Railroad Company
Unisat, Inc.
United Telephone - Southeast
United Telephone Co. of the Northwest
USCOC of Richland, Inc.
Valley Communications Center
Verizon Maryland, Inc.
Verizon New England Inc.
Verizon New Jersey, Inc.
Verizon New York, Inc.
Verizon North Inc.
Verizon Northwest Inc.
Verizon Pennsylvania, Inc.
VERIZON SOUTH INC.
Verizon Virginia, Inc.
Verizon Washington DC, Inc.
Verizon Wireless (VAW) LLC - (WA)
Verizon Wireless (VAW) LLC - Idaho
Verizon Wireless (VAW) LLC-Portland, OR
Village Video Productions Inc
Vyvx, LLC
Walla Walla, City of
Washington Oregon Wireless, LLC
Washington State of Dept of Transportat
Washington State Patrol
Washington State University
Westar Satellite Services LP
Western Sub-RSA LTD Partnership
Western Technical Services
Wexler Video, Inc.
Whitman County Emergency Management

Whitman County Fire Protection Dist #7
Winged Vision Inc
Wisconsin Bell Telephone Company
Wolfe Air Aviation
World Television of Washington LLC
Yakima MSA Limited Partnership

There are no unresolved interference objections with the station contained in these applications.

The following section presents the data pertinent to frequency coordination of the 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: 10/10/2017
Job Number: 171010COMSGE04

Administrative Information

Status: TEMPORARY (Operation from 12/01/2017 to 03/01/2018)
Call Sign: TEMP03
Licensee Code: DENALI
Licensee Name: Denali 20020, LLC

Site Information

BREWSTER, WA

Venue Name:
Latitude (NAD 83): 48° 8' 46.7" N
Longitude (NAD 83): 119° 42' 12.1" W
Climate Zone: A
Rain Zone: 5
Ground Elevation (AMSL): 382.83 m / 1256.0 ft

Link Information

Satellite Type: Low Earth Orbit
Mode: TO - Transmit-Only
Modulation: Digital
Minimum Elevation Angle: 5.0°
Azimuth Range: 0.0° to 360°
Antenna Centerline (AGL): 4.88 m / 16.0 ft

Antenna Information

Transmit - FCC32

Manufacturer: NEC
Model: 7.6 meter
Gain / Diameter: 52.7 dBi / 7.6 m
3-dB / 15-dB Beamwidth: 0.52° / 0.98°

Max Available RF Power (dBW/4 kHz): 7.3
(dBW/MHz): 31.3

Maximum EIRP (dBW/4 kHz): 60.0
(dBW/MHz): 84.0

Interference Objectives: Long Term: -154.0 dBW/4 kHz 20%
Short Term: -131.0 dBW/4 kHz 0.0025%

Frequency Information

Transmit 7.0 GHz

Emission / Frequency Range (MHz): 400KG7W / 6723.75 and 7026.25

Max Great Circle Coordination Distance: 370.0 km / 229.9 mi
Precipitation Scatter Contour Radius: 156.7 km / 97.3 mi

Coordination Values	BREWSTER, WA	
Licensee Name	Denali 20020, LLC	
Latitude (NAD 83)	48° 8' 46.7" N	
Longitude (NAD 83)	119° 42' 12.1" W	
Ground Elevation (AMSL)	382.83 m / 1256.0 ft	
Antenna Centerline (AGL)	4.88 m / 16.0 ft	
Antenna Model	NEC 7.6 meter	
Antenna Mode	Transmit 7.0 GHz	
Interference Objectives: Long Term	-154.0 dBW/4 kHz	20%
Short Term	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power	7.3 (dBW/4 kHz)	

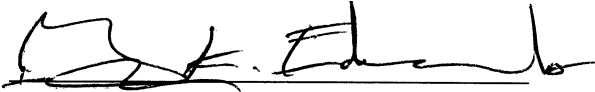
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 7.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	1.88	69.99	4.50	370.00
5	2.03	65.76	4.50	370.00
10	2.62	61.74	4.50	370.00
15	1.73	57.33	4.50	370.00
20	0.93	52.95	4.50	370.00
25	1.77	49.36	4.50	370.00
30	0.58	44.95	4.50	370.00
35	0.36	41.15	4.50	370.00
40	0.63	37.89	4.50	370.00
45	1.03	35.10	4.50	370.00
50	0.87	32.32	4.50	370.00
55	1.02	30.32	4.50	370.00
60	1.08	28.91	4.50	370.00
65	1.60	28.71	4.50	370.00
70	1.82	29.01	4.50	370.00
75	1.51	29.57	4.50	370.00
80	2.06	31.65	4.50	370.00
85	2.17	33.91	4.50	370.00
90	2.44	36.76	4.50	370.00
95	2.40	39.76	4.50	370.00
100	2.24	43.00	4.50	370.00
105	1.90	46.42	4.50	370.00
110	1.68	50.13	4.50	370.00
115	1.44	53.99	4.50	370.00
120	1.38	58.06	4.50	370.00
125	1.07	62.15	4.50	370.00
130	0.48	66.28	4.50	370.00
135	0.37	70.59	4.50	370.00
140	0.00	74.92	4.50	370.00
145	0.00	79.35	4.50	370.00
150	0.00	83.79	4.50	370.00
155	0.00	88.24	4.50	370.00
160	0.00	92.69	4.50	370.00
165	0.00	97.14	4.50	370.00
170	0.00	101.57	4.50	370.00
175	0.00	105.99	4.50	370.00
180	0.00	110.38	4.50	370.00
185	0.00	114.73	4.50	370.00

Coordination Values		BREWSTER, WA	
Licensee Name		Denali 20020, LLC	
Latitude (NAD 83)		48° 8' 46.7" N	
Longitude (NAD 83)		119° 42' 12.1" W	
Ground Elevation (AMSL)		382.83 m / 1256.0 ft	
Antenna Centerline (AGL)		4.88 m / 16.0 ft	
Antenna Model		NEC 7.6 meter	
Antenna Mode		Transmit 7.0 GHz	
Interference Objectives: Long Term		-154.0 dBW/4 kHz	20%
Short Term		-131.0 dBW/4 kHz	0.0025%
Max Available RF Power	7.3 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 7.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	119.03	4.50	370.00
195	0.00	123.27	4.50	370.00
200	0.00	127.42	4.50	370.00
205	0.00	131.46	4.50	370.00
210	0.00	135.35	4.50	370.00
215	0.00	139.06	4.50	370.00
220	0.00	142.53	4.50	370.00
225	0.00	145.68	4.50	370.00
230	0.00	148.41	4.50	370.00
235	0.00	150.60	4.50	370.00
240	0.40	151.75	4.50	370.00
245	2.21	150.68	4.50	370.00
250	3.21	149.61	4.50	370.00
255	3.42	148.59	4.50	370.00
260	3.29	147.23	4.50	370.00
265	3.75	144.77	4.50	370.00
270	4.21	141.88	4.50	370.00
275	4.64	138.69	4.50	370.00
280	5.01	135.29	4.50	370.00
285	4.80	132.01	4.50	370.00
290	4.72	128.43	4.50	370.00
295	4.23	124.87	4.50	370.00
300	3.66	121.15	4.50	370.00
305	2.08	117.56	4.50	370.00
310	2.48	113.25	4.50	370.00
315	2.12	109.08	4.50	370.00
320	2.06	104.78	4.50	370.00
325	1.65	100.49	4.50	370.00
330	1.88	96.11	4.50	370.00
335	2.23	91.73	4.50	370.00
340	0.61	87.33	4.50	370.00
345	0.00	82.86	4.50	370.00
350	0.00	78.43	4.50	370.00
355	0.67	74.11	4.50	370.00

Certification

I hereby certify that I am the technically qualified person responsible for the preparation of the frequency coordination data contained in this report. I am familiar with Parts 101 and 25 of the FCC Rules and Regulations and I have either prepared or reviewed the frequency coordination data submitted with this report, and that it is complete and correct to the best of my knowledge and belief.

BY: 

Gary K. Edwards
Senior Manager
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Ashburn, VA 20147

DATED: October 18, 2017