



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION

Denali 20020, LLC

Call Sign: E140070

Authorization Type: License

File Number: SES-LIC-20140721-00607

Non Common Carrier

Grant date: 11/13/2014

Expiration Date: 11/13/2029

Nature of Service: Fixed Satellite Service

Class of Station: Fixed Earth Stations

A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
1)	1	P.O. Box 430 66-C USEI Drive Brewster, Okanogan, WA 98812	48°8'55.2"N	119°42'1.9"W	385.23	83
Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209						

Subject to the provisions of the Communications Act of 1934, The Communications Satellite Act of 1962, subsequent acts and treaties, and all present and future regulations made by this Commission, and further subject to the conditions and requirements set forth in this license, the grantee is authorized to construct, use and operate the radio facilities described below for radio communications for the term beginning November 13, 2014 (3 AM Eastern Standard Time) and ending November 13, 2029 (3 AM Eastern Standard Time) . The required date of completion of construction and commencement of operation is November 13, 2015 (3 AM Eastern Standard Time) . Grantee must file with the Commission a certification upon completion of construction and commencement of operation.

B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.

The General Provision 1900 applies to all transmitting frequency bands.

For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
1)	6425.5000-6875.0000	H, V, L, R	20M0G7W	Tx	86.68	49.70	1		Digital Data Carrier
2)	5850.0000-6425.0000	H, V, L, R	36M0G7W	Tx	85.00	45.46	1		Digital Data Carrier
3)	5850.0000-6425.0000	H, V, L, R	72M0G7W	Tx	85.00	42.45	1		Digital Data Carrier
4)	3625.0000-4200.0000	H, V, L, R	36M0G7W	Rx			1		Digital Data Carrier
5)	3625.0000-4200.0000	H, V, L, R	72M0G7W	Rx			1		Digital Data Carrier



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C) Frequency Coordination Limits

#	Frequency Limits (MHz)	Satellite Arc (Deg. Long.)		Elevation (Degrees)		Azimuth (Degrees)		Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
		East Limit	West Limit	East Limit	West Limit	East Limit	West Limit		
1)	3625.0000-4200.0000	53.0W	188.0W	06.7	05.6	107.8	253.5		1
2)	5850.0000-6425.0000	53.0W	188.0W	06.7	05.6	107.8	253.5	10.87	1

D) Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

- 1) 1 to ANIK F1R (S2674) @ 107.3 degrees W.L. (Canada-licensed)
- 2) 1 to INTELSAT 805 (S2404) @ 304.5 E.L. (U.S.-licensed) [De-orbited (January 16, 2020)]

E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
1	1	2	11.1	General Dynamics	Satcom	385.23	11.1 AGL/ 396.33 AMSL	
Max Gains(s): 55.7 dBi @ 6.1750 GHz 51.9 dBi @ 3.9500 GHz Maximum total input power at antenna flange (Watts) = 1,253.00 Maximum aggregate output EIRP for all carriers (dBW) = 86.68								

G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions

H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

- 1010 --- Applicable to all receiving frequency bands. Emission designator indicates the maximum bandwidth of received signal at associated station(s). Maximum EIRP and maximum EIRP density are not applicable to receive operations.
- 1900 --- Applicable to all transmitting frequency bands. Authority is granted to transmit any number of RF carriers with the specified parameters on any discrete frequencies within associated band in accordance with the other terms and conditions of this authorization, subject to any additional limitations that may be required to avoid unacceptable levels of inter-satellite interference.



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H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

2010 --- This authorization is issued pursuant to the Commission's Second Report and Order adopted June 16, 1972 (35 FCC 2d 844) and Memorandum, Opinion and Order adopted December 21, 1972 (38 FCC 2d 665) in Docket No. 16495 and is subject to the policies adopted in that proceeding.

2916 --- Transmitter(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 measures must also be taken to restrict access to other regions in which the earth station's power flux density levels exceed the specified guidelines.

2938 --- Upon completion of construction, each licensee must file with the Commission a certification including the following information: (1) name of the licensee, (2) file number of the application, (3) call sign of the antenna, (4) date of the license, (5) certification that the facility as authorized has been completed, (6) certification that each antenna facility has been tested and is within 2 dB of the pattern specified in Section 25.209, and (7) certification that the station is operational (including the date of commencement of service) and will remain operational during the license period unless the license is submitted for cancellation.

3219 --- All existing transmitting facilities, operations and devices regulated by the Commission must be in compliance with the Commission's radiofrequency (RF) exposure guidelines, pursuant to Section 1.1307(b)(1) through (b)(3) of the Commission's rules, or if not in compliance, file an Environmental Assessment (EA) as specified in Section 1.1311. See 47 CFR § 1.1307 (b) (5).

5208 --- The licensee shall take all necessary measures to ensure that the antenna does 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 alerting signs and protective equipment for workers.

5216 --- All operations shall be on a non-common carrier basis.

6621 --- This license, which was filed after December 12, 2012, is granted, authorization to operate in the 3625-3650 MHz frequency band pursuant to FCC Order 12-148, para 168, in that this earth station is within 10 miles of Grandfather earth stations, Call Signs KA294 and KA20. Protection of this station from interference is limited to the frequency coordination agreements established for call sign KA294. Subsequent modification of this earth station that results in a change of location beyond a distance of 10 miles from the grandfather earth station will result in loss of primary status for the 3625-3650 MHz portion of this authorization. Operation in the 3650 - 3700 MHz frequency band is on a secondary unprotected basis with respect to terrestrial stations pursuant to FCC Order 00-363, Paragraph 29 and Footnote NG169 in the table of allocations.

6622 --- Operations in the 5850-5925 MHz band are authorized only with Intelsat 805 at 55.5 degrees W.L.



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H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

- 6623 --- Freeze on New Earth Stations. To preserve the stability of the spectral environment in the 3.5 GHz Band and ensure that opportunities continue to exist for wireless broadband services as proposed in the foregoing Notice, we direct the International Bureau to stop accepting applications in the 3600-3650 MHz band for new earth stations in the fixed-satellite service that are more than 10 statute miles from a licensed earth station's coordinates for the duration of this proceeding. This application freeze is narrowly tailored to ensure a stable spectral ecosystem for the proposed Citizens Broadband Service, while providing reasonable opportunities to obtain suitable real estate for the placement of new FSS earth station facilities near the 37 grandfathered stations identified in Appendix A. In light of the limited number of such grandfathered stations, such a freeze is expected to meet the immediate needs of earth station operators without significantly reducing the availability of spectrum for wireless broadband services by prohibiting expansion of new FSS earth stations in the 3600-3650 MHz band segment.
- 6624 --- The decision to impose this freeze is procedural in nature, and therefore the freeze is not subject to the notice and comment requirements of the Administrative Procedure Act. Moreover, for the reasons set forth above, in these circumstances there is good cause to find that notice and comment are impractical, unnecessary, and contrary to the public interest because it would undercut the purposes of the freeze. For the same reasons, and in order to avoid undercutting the purposes of the freeze, we find that there is good cause for making the freeze effective as of the release date of this Notice.
- 6625 --- IT IS FURTHER ORDERED that license applications for new earth stations in the fixed-satellite service, which would receive on frequencies in the 3600-3650 MHz band on a primary basis(emphasis added), filed on or after December 12, 2012, shall not be accepted unless frequencies in this same band are currently licensed to an earth station within 10 miles of the requested coordinates.



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B) This RADIO STATION AUTHORIZATION is granted subject to the additional conditions specified below:

This authorization is issued on the grantee's representation that the statements contained in the application are true and that the undertakings described will be carried out in good faith.

This authorization shall not be construed in any manner as a finding by the Commission on the question of marking or lighting of the antenna system should future conditions require. The grantee expressly agrees to install such marking or lighting as the Commission may require under the provisions of Section 303(q) of the Communications Act. 47 U.S.C. § 303(q).

Neither this authorization nor the right granted by this authorization shall be assigned or otherwise transferred to any person, firm, company or corporation without the written consent of the Commission. This authorization is subject to the right of use or control by the government of the United States conferred by Section 706 of the Communications Act. 47 U.S.C. § 706. Operation of this station is governed by Part 25 of the Commission's Rules. 47 C.F.R. Part 25.

This authorization shall not vest in the licensee any right to operate this station nor any right in the use of the designated frequencies beyond the term of this license, nor in any other manner than authorized herein.

This authorization is issued on the grantee's representation that the station is in compliance with environmental requirements set forth in Section 1.1307 of the Commission's Rules. 47 C.F.R. § 1.1307.

This authorization is issued on the grantee's representation that the station is in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules. 47 C.F.R. § 17.4.

The following condition applies when this authorization permits construction of or modifies the construction permit of a radio station.

This authorization shall be automatically forfeited if the station does not meet each required construction deadline by the required date of completion unless, before such date(s), a specific application is timely filed to request an extension of the construction deadline(s), supported with good cause why that failure to construct by the required date was due to factors not under control of the grantee.

Licensees are required to pay annual regulatory fees related to this authorization. The requirement to collect annual regulatory fees from regulatees is contained in Public Law 103-66, "The Omnibus Budget Reconciliation Act of 1993." These regulatory fees, which are likely to change each fiscal year, are used to offset costs associated with the Commission's enforcement, public service, international and policy and rulemaking activities. The Commission issues a Report and Order each year, setting the new regulatory fee rates. Receive only earth stations are exempt from payment of regulatory fees.