

## **RADIO STATION AUTHORIZATION**

Name: DISH Broadcasting Corporation Call Sign: E950288

Authorization Type: Renewal of License File Number: SES-RWL-20200916-01025

Non Common Carrier Grant date: 10/30/2020 Expiration Date: 10/27/2035

Nature of Service: Direct Broadcast Satellite Service

Nature of Service: Feeder Link for DBS in Fixed Satellite Service

Nature of Service: Other

**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) T3 and T4	530 ECHOSTAR DRIVE CHEYENNE, LARAMIE, WY 82007	41°7'56.0"N	104°44'9.0"W	1808.4	27

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 October 27, 2020 (3 AM Eastern Standard Time) and ending October 27, 2035 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is 00/00/0000. 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)	Polarizatio Code	n Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services
	1) 17798.4820-17798.5180	R	36K0G2D	Tx	63.00	53.46	1		BPSK IDENTIFICATION CODE
	2) 17790.0000-17800.0000	H,V,L,R	800KG2D	Tx	84.67	61.66	1		TT&C
	3) 17790.0000-17800.0000	L,R	1M50G2D	Tx	87.40	61.66	1		COMMAND BEACON (TT&C)
	4) 17310.0000-17790.0000	L,R	24M0G7W	Tx	87.40	49.62	1		DIGITAL VIDEO ANDDATA
	5) 17308.2500-17308.7500	L,R	1M50G2D	Tx	87.40	61.66	1		COMMAND BEACON (TT&C)
	6) 17300.0000-17800.0000	L,R	24M0M1F	Tx	87.40	49.62	1		DIGITAL, COMPRESSED VIDEO
	7) 17300.0000-17310.0000	H,V,L,R	.800KG2D	Tx	84.67	61.66	1		TT&C
	8) 17300.0000-17310.0000	L,R	1M50G2D	Tx	87.40	61.66	1		COMMAND BEACON (TT&C)

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### **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	n Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	(JDXX/ALIT	Special Provisions (Refer to Section H)	Modulation/ Services	
9)	12698.3500-12698.6500	Н, V	300KG2D	Rx		1	-	TELEMETRY & BEACON (TT&C)	TRACKING
10)	12690.0000-12700.0000	H,V,L,R	800KG2D	Rx		1	-	TT&C	
11)	12690.0000-12700.0000	Н, V	300KG2D	Rx		1	-	TELEMETRY & BEACON (TT&C)	TRACKING
12)	12210.0000-12690.0000	L,R	24M0G7W	Rx		1	-	DIGITAL VIDEO	AND DATA
13)	12202.3500-12202.6500	Н, V	300KG2D	Rx		1	-	TELEMETRY & BEACON (TT&C)	TRACKING
14)	12200.3500-12200.6500	H, V	300KG2D	Rx		1	-	TELEMETRY & BEACON (TT&C)	TRACKING
15)	12200.0000-12700.0000	L,R	24M0M1F	Rx		1		DIGITAL, COMPE	RESSED VIDEO
16)	12200.0000-12210.0000	H,V,L,R	800KG2D	Rx		1	-	TT&C	
17)	12200.0000-12210.0000	H,V	300KG2D	Rx		1	-	TELEMETRY & BEACON (TT&C)	TRACKING

### **C) Frequency Coordination Limits**

<u>#</u>	Frequency Limits (MHz)	Satellite Arc (Deg. Long.) East West Limit Limit	Elevation (Degrees) East West Limit Limit	Azimuth (Degrees) East West Limit Limit	Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
1)	17300.0000-17800.0000	110.0W-119.0W	42.2-40.3	188.0-201.1	-4.9 1	
2)	12200.0000-12700.0000	110.0W-119.0W	42.2-40.3	188.0-201.1	1	-
3)	17308.2500-17308.7500	34.0W-176.0W	05.7-05.3	102.9-257.4	12.77 1	-
4)	12200.3500-12200.6500	34.0W-176.0W	05.7-05.3	102.9-257.4	1	-
5)	12202.3500-12202.6500	34.0W-176.0W	05.7-05.3	102.9-257.4	1	-
6)	12698.3500-12698.6500	34.0W-176.0W	05.7-05.3	102.9-257.4	1	-
7)	12200.0000-12210.0000	34.0W-176.0W	05.7-05.3	102.9-257.4	1	-
8)	12200.0000-12700.0000	34.0W-176.0W	05.7-05.3	102.9-257.4	1	-
9)	12690.0000-12700.0000	34.0W-176.0W	05.7-05.3	102.9-257.4	1	-
10)	17300.0000-17310.0000	34.0W-176.0W	05.7-05.3	102.9-257.4	12.8 1	-
11)	17300.0000-17800.0000	34.0W-176.0W	05.7-05.3	102.9-257.4	-4.9 1	-
12)	17790.0000-17800.0000	34.0W-176.0W	05.7-05.3	102.9-257.4	12.8 1	

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#### **C) Frequency Coordination Limits**

	T	Satellite Arc (Deg. Long.)	Elevation (Degrees)	Azimuth (Degrees)	Max EIRP Density toward	
#	Frequency Limits (MHz)	East West Limit Limit	East West Limit Limit	East West Limit Limit	Horizon (dBW/4kHz)	Associated Antenna(s)
13)	12200.0000-12210.0000	34.0W-176.0W	05.7-05.3	102.9-257.4	1	
14)	12690.0000-12700.0000	34.0W-176.0W	05.7-05.3	102.9-257.4	1	
15)	17300.0000-17310.0000	34.0W-176.0W	05.7-05.3	102.9-257.4	12.8 1	
16)	17790.0000-17800.0000	34.0W-176.0W	05.7-05.3	102.9-257.4	12.8 1	
17)	12210.0000-12690.0000	34.0W-176.0W	05.7-05.3	102.9-257.4	1	
18)	17310.0000-17790.0000	34.0W-176.0W	05.7-05.3	102.9-257.4	12.8 1	
19)	17798.4820-17798.5180	34.0W-176.0W	05.7-05.3	102.9-257.4	12.8 1	

### **D) Points of Communications**

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

- 1) T3 and T4 to ECHOSTAR 14 @ 118.9 degrees W.L. (of the Direct Broadcast satellite system (U.S.-licensed))
- 2) T3 and T4 to ECHOSTAR 10 @ 110.2 degrees W.L. (S2694) of the Direct Broadcast satellite system (U.S.-licensed)
- 3) T3 and T4 to CIEL 2 satellite @ 128.85 degrees W.L. (CANADIAN-licensed satellite)
- 4) T3 and T4 to ECHOSTAR 11 @110 degrees W.L. satellite (U.S.-licensed)
- 5) T3 and T4 to US LICENSED Echostar and Dish satellites at 61.5, 110, and 119 WL clusters

#### 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)
Т3	and T4	1	2	13.2	TIW	LMATT 13.2 KU	1808.4	14.1 AGL/ 1822.5 AMSL	
	Max	Gains(s):	62.0	dBi @	12.0000 GHz	65.0 dBi @ 18.000	00 GHz		
	Maxi	imum total inpu	t power	at anten	na flange (Watts)	= 1,400.00			
	Maxi	imum aggregate	output	EIRP for	all carriers (dBW	96.40			

#### **F) Remote Control Point:**

T3 and T4 Call Sign: E950288

#### G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions

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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:

- 4 --- Licensee must ensure that a current listing of the name, title, mailing address, email address, and telephone number of the responsible point of contact are on file at the FCC. Any changes must be filed electronically in the International Bureau Filing System (MyIBFS) using the "Pleadings and Comments" link on the MyIBFS homepage within 10 days of the change.
- 6 --- Licensee must comply with the license modification and notification requirements of 47 CFR § 25.118 to change the coordinates of its authorized earth station.
- 8 --- Licensee must notify the Commission when all earth stations operating under this authorization are no longer operational or when they have not been used to provide any service during any 6-month operation.
- 134 --- This grant is without prejudice and subject to the outcome of the rulemaking "The Establishment of Policies and Service Rules for the Broadcasting-Satellite Service at the 17.3-17.7 GHz Frequency Band and at the 17.7-17.8 GHz Frequency Band Internationally, and at the 24.75-25.25 GHz Frequency Band for Fixed Satellite Services Providing Feeder Links to the Broadcasting-Satellite Service and for the Satellite Services Operating Bi-directionally in the 17.3-17.8 GHz Frequency Band" (IB Docket No. 06-123). Accordingly, whether the facilities authorized in this action will be subject to new interference-mitigation requirements will be addressed in IB

  Docket

  No. 06-123.
- 491 --- Ciel Satellite Communications (Ciel) must operate the Ciel 2 satellite 128.85° W.L. with a ±0.05 degree longitudinal station-keeping. Ciel shall not operate the Ciel 2 satellite outside of these station-keeping limits without further authorization.
- 5926 --- Licensee is not authorized to communicate with EchoStar 5 located at 119 degrees West Longitude (WL) and EchoStar 6 @ 110 degrees WL except to the extent that the operations of that space station have been separately authorized by the FCC.
- 90398 --- Changes to previously authorized transmitting facilities, operations and devices regulated by the Commission that may have significant environmental impact, and are not excluded by §1.1306, require the preparation of an Environmental Assessment (EA) by the licensee. (See 47 C.F.R. §§1.1307, 1.1308 and 1.1311)
- 90399 --- The licensee shall, at all times, take all necessary measures to ensure that operation of this (these) authorized earth station(s) 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. Physical 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.

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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 regulates 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.

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