

## **RADIO STATION AUTHORIZATION**

Name: DIRECTV Enterprises, LLC Call Sign: E050112

Authorization Type: Renewal of License File Number: SES-RWL-20200608-00601

Non Common Carrier Grant date: 08/31/2020 Expiration Date: 07/18/2035

Nature of Service: Direct to Home Fixed Satellite

Nature of Service: Fixed Satellite Service

**Class of Station:** Fixed Earth Stations

## A) Site Location(s)

# Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provision NAD (Refer to Section I
1) 1	5454 GARTON ROAD (CRBC) CASTLE ROCK, DOUGLAS, CO 801		104°48'27.5"W	2096	83
	Licensee certifies antenna(s	) comply with a	ain patterns spe	ecified 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 July 18, 2020 (3 AM Eastern Standard Time) and ending July 18, 2035 (3 AM Eastern Standard Time). The required date of 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		Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services	
1)	29995.0000-30000.0000	R	NON	Tx	73.00	73.00	CKA-8		UNMODULATED BEACON	POINTING
2)	29250.0000-30000.0000	L	24M0G7W	Tx	81.10	43.30	CKA-8		QPSK, MCPC VIDEO	)
3)	29250.0000-30000.0000	L	36M0G7W	Tx	81.10	41.60	CKA-8		QPSK, MCPC VIDEO	)
4)	29250.0000-30000.0000	L	54M0G7W	Tx	81.10	39.80	CKA-8		QPSK, MCPC VIDEO	)
5)	29250.0000-30000.0000	L	22M6G7W	Tx	80.80	43.30	CKA-8		QPSK, MCPC VIDEO	O / DATA
6)	29250.0000-30000.0000	L	2M20G1W	Tx	70.70	43.30	CKA-8		QPSK, SCPC DATA	/ VIDEO
7)	29250.0000-30000.0000	L	2M90G1W	Tx	71.90	43.30	CKA-8		QPSK, SCPC DATA	/ VIDEO
8)	29250.0000-30000.0000	L	5M70G1W	Tx	74.90	43.30	CKA-8		QPSK, SCPC DATA	/ VIDEO

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#	Frequency (MHz)	Polarization Code	n Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services			
9)	29250.0000-30000.0000	L	14M1G7W	Tx	78.80	43.30	CKA-8		QPSK, MCPC VIDEO	/ SCPC	DATA	/
10)	29250.0000-30000.0000	L	8M50G7W	Tx	76.60	43.30	CKA-8		QPSK, MCPC VIDEO	/ SCPC	DATA	/
11)	28350.0000-28600.0000	L	24M0G7W	Tx	81.10	43.30	CKA-8		QPSK, MCPC	VIDEO		
12)	28350.0000-28600.0000	L	36M0G7W	Tx	81.10	41.60	CKA-8		QPSK, MCPC	VIDEO		
13)	28350.0000-28600.0000	L	54M0G7W	Tx	81.10	39.80	CKA-8		QPSK, MCPC	VIDEO		
14)	28350.0000-28600.0000	L	22M6G7W	Tx	80.80	43.30	CKA-8		QPSK, MCPC	VIDEO / I	DATA	
15)	28350.0000-28600.0000	L	2M20G1W	Tx	70.70	43.30	CKA-8		QPSK, SCPC	DATA / V	IDEO	
16)	28350.0000-28600.0000	L	2M90G1W	Tx	71.90	43.30	CKA-8		QPSK, SCPC	DATA / V	IDEO	
17)	28350.0000-28600.0000	L	5M70G1W	Tx	74.90	43.30	CKA-8		QPSK, SCPC	DATA / V	IDEO	
18)	28350.0000-28600.0000	L	14M1G7W	Tx	78.80	43.30	CKA-8		QPSK, MCPC VIDEO	/ SCPC	DATA	/
19)	28350.0000-28600.0000	L	8M50G7W	Tx	76.60	43.30	CKA-8		QPSK, MCPC VIDEO	/ SCPC	DATA	/
20)	19700.0000-20200.0000	R	24M0G7W	Rx			CKA-8		QPSK, MCPC	VIDEO		
21)	19700.0000-20200.0000	R	36M0G7W	Rx			CKA-8		QPSK, MCPC	VIDEO		
22)	19700.0000-20200.0000	R	54M0G7W	Rx			CKA-8		QPSK, MCPC	VIDEO		
23)	19700.0000-20200.0000	R	22M6G7W	Rx			CKA-8		QPSK, MCPC	VIDEO / I	DATA	
24)	19700.0000-20200.0000	R	2M20G1W	Rx			CKA-8		QPSK, SCPC	DATA / V	IDEO	
25)	19700.0000-20200.0000	R	2M90G1W	Rx			CKA-8		QPSK, SCPC	DATA / V	IDEO	
26)	19700.0000-20200.0000	R	5M70G1W	Rx			CKA-8		QPSK, SCPC	DATA / V	IDEO	
27)	19700.0000-20200.0000	R	14M1G7W	Rx			CKA-8		QPSK, MCPC VIDEO	/ SCPC	DATA	/
28)	19700.0000-20200.0000	R	8M50G7W	Rx			CKA-8		QPSK, MCPC VIDEO	/ SCPC	DATA	/
29)	18300.0000-18800.0000	R	24M0G7W	Rx			CKA-8		QPSK, MCPC	VIDEO		
30)	18300.0000-18800.0000	R	36M0G7W	Rx			CKA-8		QPSK, MCPC	VIDEO		

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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)	Polarizatio Code	on Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier Associated (dBW/4kHz) Antenna	Special Provisions (Refer to Section H)	Modulation/ Services		
31) 1830	00.0000-18800.0000	R	54M0G7W	Rx		CKA-8		QPSK, MCPC	VIDEO	
32) 1830	00.0000-18800.0000	R	22M6G7W	Rx		CKA-8		QPSK, MCPC	VIDEO / DATA	
33) 1830	00.0000-18800.0000	R	2M20G1W	Rx		CKA-8		QPSK, SCPC	DATA / VIDEO	
34) 1830	00.0000-18800.0000	R	2M90G1W	Rx		CKA-8		QPSK, SCPC	DATA / VIDEO	
35) 1830	00.0000-18800.0000	R	5M70G1W	Rx		CKA-8		QPSK, SCPC	DATA / VIDEO	
36) 1830	00.0000-18800.0000	R	14M1G7W	Rx		CKA-8		QPSK, MCPC VIDEO	/ SCPC DATA	/
37) 1830	00.0000-18800.0000	R	8M50G7W	Rx		CKA-8		QPSK, MCPC VIDEO	/ SCPC DATA	/

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

	F.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	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)
1)	29995.0000-30000.0000	99.2W-99.2W	44.2-44.2	147.8-147.8	5.6	CKA-8
2)	29250.0000-30000.0000	80.0W-120.0W	37.8-41.9	143.9-203.2	-22.4	CKA-8
3)	28350.0000-28600.0000	80.0W-120.0W	37.8-41.9	143.9-203.2	-22.4	CKA-8
4)	19700.0000-20200.0000	80.0W-120.0W	37.8-41.9	143.9-203.2		CKA-8
5)	18300.0000-18800.0000	80.0W-120.0W	37.8-41.9	143.9-203.2		CKA-8

### D) Points of Communications

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

1) 1 to Permitted Space Station List

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#### E) Antenna Facilities

	Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model num	Site Elevation (Meters)	Max Antenna Height (Meters)	Provisions (Refer to Section H)
1		CKA-8	1	3.5	ANDREW	ES35-101-	-208 2096	3.79 AGL/ 2099.79 AMSL	
	Max (	Gains(s):	55.2	dBi @	19.9500 GHz	58.3 dBi @ 2	9.6000 GHz		
	Maxir	mum total inpu	t power	at anten	na flange (Watts)	= 191.	00		
	Maxir	mum aggregate	output :	EIRP for	all carriers (dBW	81.3	10		

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

1 5454 Garton Road Call Sign:

Castle Rock, Doulas, CO 80104

303-660-7001

#### **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:
  - 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.
  - 5 --- Licensee must notify the Commission when this earth station is no longer operational or when it has not been used to provide any service during any 6-month operation.
  - 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.
  - 2637 --- DIRECTV Enterprises, LLC must coordinate all of its Ka-band downlink operations with the U.S. government systems in accordance with footnote US 334 to the Table of Frequency Allocations, 47 C.F.R. section 2.106.
  - 9661 --- The 17.8 20.2 GHz band is shared with U.S. Government space stations and associated earth stations in the Fixed-Satellite Service. The satellite network of which this is a cooperating earth station is subject to coordination under US334 and operation of this earth station will be subject to any technical constraints resulting from this coordination.

Special



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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:

- 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.
- 90405 --- Operations with PERMITTED LIST satellite must comply with §25.212 levels and operations above these levels must coordinate with satellite operators prior to operations.
- 900407 --- The Permitted Space Station List (Permitted List) is a list of all geostationary space stations providing fixed-satellite service pursuant to a Commission license or grant of U.S. market access. The Permitted List currently includes the following frequency bands per §25.103 and §25.115(k)(1):

3600-4200 MHz (space-to-Earth) 5850-6725 MHz (Earth-to-space) 10.95-11.2 GHz (space-to-Earth) 11.45-12.2 GHz (space-to-Earth) 13.75-14.5 GHz (Earth-to-space) 18.3-18.8 GHz (space-to-Earth) 19.7-20.2 GHz (space-to-Earth) 24.75-25.25 GHz (Earth-to-space) 28.35-28.6 GHz (Earth-to-space) 29.25-30.0 GHz (Earth-to-space).

Earth stations with "Permitted List" designated as a point of communication may access any space station on the Permitted List, provided the operations comply with the applicable "routine" uplink and downlink limits, are within the specific frequency bands authorized in the earth station license, have completed coordination with terrestrial stations pursuant to §25.203, and otherwise comply with all terms and conditions of both the earth station license and the space station grant.

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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 is not ready for operation by the required date of completion of construction unless an application for modification of authorization to request additional time to complete construction is filed by that date, together with a showing that failure to complete construction 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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