



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION

Name: DISH Operating L.L.C.

Call Sign: E050029

Authorization Type: Renewal of License

File Number: SES-RWL-20181221-03520

Non Common Carrier

Grant date: 03/19/2019

Expiration Date: 01/30/2034



Nature of Service: Direct Broadcast Satellite Service

Class of Station: Fixed Earth Stations

A) Site Location(s)

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	NAD (Refer to Section H)	Special Provisions
1)	1	Multiple 5,000,000 (0.45M antennas) CONUS,			0	NA	

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 January 30, 2019 (3 AM Eastern Standard Time) and ending January 30, 2034 (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)	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)	12200.0000-12700.0000	L,R	24M0G7W	Rx	0.00	0.00	0.45M.		DBS

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)	12200.0000-12700.0000								0.45M.



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION

Name: DISH Operating L.L.C.

Call Sign: E050029

Authorization Type: Renewal of License

File Number: SES-RWL-20181221-03520

Non Common Carrier

Grant date: 03/19/2019

Expiration Date: 01/30/2034

D) Points of Communications

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

1) 1 to CIEL 2 satellite @ 128.85 degrees W.L. (CANADIAN-licensed satellite)

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	0.45M.	5000000	0.45	Various - all using the following specs.	Various	0	0 AGL/ 0 AMSL	
Max Gains(s): 33.6 dBi @ 12.2000 GHz								
Maximum total input power at antenna flange (Watts) =					.00			
Maximum aggregate output EIRP for all carriers (dBW) =					.00			

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 (IBFS) in the "Other Filings" tab 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.
- 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.



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION

Name: DISH Operating L.L.C.

Call Sign: E050029

Authorization Type: Renewal of License

File Number: SES-RWL-20181221-03520

Non Common Carrier

Grant date: 03/19/2019

Expiration Date: 01/30/2034

H) Special and General Provisions

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

- 487 --- EchoStar's request for a partial waiver of Section 25.283(c) of the Commission's rules, 47 C.F.R. § 25.283(c), is GRANTED. Section 25.283(c) specifies that space stations must discharge all stored energy sources at end-of-life of the space station. EchoStar states the satellite will meet the terms of the rule, except that certain helium tanks on the Ciel 2 spacecraft will not be vented at end-of-life, but instead are permanently sealed and isolated following transfer orbit operations. We find that the information submitted in the application is not sufficient to support a finding at this time that the intent of the rule would be satisfied by the sealing the helium tanks. This waiver is granted because modification of the spacecraft would present an undue hardship, and, based upon limited available information, the limited probability that possible mechanisms for breach of the sealed vessel would result in its inert contents contributing substantially to an explosion or deflagration large enough to release orbital debris or break up the spacecraft.
- 489 --- EchoStar's initial license to provide direct broadcast satellite (DBS) service to the U.S. market from a Canadian-licensed satellite (EchoStar 5) at the 129° W.L. orbital location was granted pursuant to the Commission's DISCO II framework. See EchoStar Satellite LLC, Request for Special Temporary Authority for the EchoStar 5 Satellite, Order and Authorization, 20 FCC Rcd 11755 (Int'l Bur., Sat. Div. 2005). In authorizing EchoStar 5 to serve the U.S. market, we found that de jure barriers to entry in the Canadian market exist for U.S.-licensed DBS satellites. Nevertheless, we found that despite these de jure barriers, EchoStar's request for market access from EchoStar 5 provided a compelling public interest justification in that it would facilitate local-into-local service and high-definition programming with no countervailing adverse impact on competition in the U.S. market. Grant of access for the Ciel 2 satellite will similarly facilitate local-into-local service and high-definition programming with no countervailing adverse impact on competition. Thus, the Satellite Division has determined that the public interest benefits in allowing EchoStar to continue to provide DBS service to the U.S. market from the Ciel 2 satellite at the nominal 129° W.L. orbital location are compelling and warrant grant of the request.
- 490 --- No protection from interference caused by radio stations authorized by other Administrations is guaranteed until the agreement of all affected Administrations is obtained and the frequency assignments of Ciel 2 become a part of the appropriate Region 2 BSS and feeder-link Plans. See 25.111(c) of the Commission's rules.
- 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.
- 492 --- Authority to receive transmissions from the Ciel 2 satellite in the 12.2-12.7 frequency band at the 128.85 W.L. orbital location is for a ten-year period and, unless extended, expires on January 30, 2019.
- 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)



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION

Name: DISH Operating L.L.C.

Call Sign: E050029

Authorization Type: Renewal of License

File Number: SES-RWL-20181221-03520

Non Common Carrier

Grant date: 03/19/2019

Expiration Date: 01/30/2034

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 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.

