

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

)	
)	
In the Matter of)	
)	File No. SES-STA-_____ - _____
ECHOSTAR BROADCASTING CORPORATION)	Call Sign E070015
)	
Application for Special Temporary Authority)	File No. SES-STA-_____ - _____
To Operate Two Ku-band Transmit/Receive)	Call Sign E980127
Earth Stations with EchoStar 8 at 77.0° W.L.)	
)	
)	

APPLICATION FOR SPECIAL TEMPORARY AUTHORITY

By this Application, and pursuant to Section 25.120(b)(3),¹ EchoStar Broadcasting Corporation (“EBC”) requests special temporary authority (“STA”) to operate two “ALSAT” Fixed-Satellite Service (“FSS”) transmit/receive earth stations (Call Signs E070015 and E980127) to transmit command instructions to the EchoStar 8 satellite at 77.0° W.L. using the 14003 MHz frequency for the remainder of the STA period granted to EBC’s parent, EchoStar Corporation (“EchoStar”) – i.e., June 14, 2011.² On February 24, 2011, EchoStar requested Commission consent to assign the earth stations that are the subject of this request and all associated authorizations to EBC on a *pro forma* basis.³ EBC requests that the Commission

¹ 47 C.F.R. § 25.120(b)(3).

² See Stamp Grant, File Nos. SES-STA-20110328-00370, SES-STA-20110328-00371 (granted Apr. 18, 2011).

³ See File No. SES-ASG-20110228-00554 (filed Feb. 24, 2011). EchoStar Corporation also requested authority to modify the earth station authorizations to add EchoStar 8 as a point of communication. That application was filed subject to the proposed *pro forma* assignment. See File Nos. SES-MFS-20110330-00384, SES-MFS-20110330-00385 (filed Mar. 30, 2011).

grant this STA immediately upon consenting to EchoStar's *pro forma* assignment to ensure there is no gap in EBC's ability to transmit command instructions to EchoStar 8.⁴

I. BACKGROUND

As EBC's parent, EchoStar, has previously reported to the Commission, the EchoStar 8 satellite, which is currently operating under Mexican authority at the 77.0° W.L. orbital location, experienced a single event upset ("SEU") in January 2011.⁵ Since that time, EchoStar has conducted testing to determine whether and how the satellite was affected by the SEU. EchoStar has determined that the SEU did not have a major impact on the health or the longevity of the satellite, and it has not impaired the functionality of the payload. But the SEU did result in the partial disabling of the satellite's remaining 17 GHz receiver. While that receiver is capable of providing ranging functions, it is not capable of receiving command instructions, which therefore have to be conveyed over the 14003 MHz frequency. EchoStar has been providing these instructions over two FSS transmit/receive earth stations located in Cheyenne, Wyoming, and Gilbert, Arizona, respectively.⁶

⁴ As noted in EchoStar's application for *pro forma* assignment of the earth stations, it has received the approval of its board of directors to assign its earth station facilities upon Commission consent; therefore, the *pro forma* assignment will be consummated immediately upon receiving Commission consent. *See* File No. SES-ASG-20110228-00554, Narrative at 2 (filed Feb. 24, 2011).

⁵ *See* Letter from Petra A. Vorwig, Counsel for EchoStar Corporation, to Marlene H. Dortch, Secretary, FCC, *filed in* File No. SAT-T/C-20090217-00026 (Feb. 1, 2011).

⁶ *See* Stamp Grant, File Nos. SES-STA-20110328-00370, SES-STA-20110328-00371 (granted Apr. 18, 2011). EBC understands that its partner, QuetzSat, S. de R.L. de C.V. ("QuetzSat"), has communicated with the Mexican administration and confirmed that the administration does not object to the temporary use of EchoStar 8's Ku-band command carrier at the 77° W.L. orbital location.

II. GRANT OF THIS APPLICATION IS IN THE PUBLIC INTEREST

For the same reasons the original STA granted to EchoStar was in the public interest, so too is this request in the public interest.⁷ In short, grant of this STA will ensure the continued safe operation of EchoStar 8 at the 77.0° W.L. orbital location while it continues to provide U.S. consumers direct-to-home satellite television service, including local-into-local programming in certain markets.

Grant of this application also will not cause harmful interference. EBC has surveyed the satellites operating near EchoStar 8 at 77° W.L. and identified the Simón Bolívar satellite, operated by VeneSat and located at 78.0° W.L., as the nearest Ku-band satellite. EBC's Ku-band operations will not cause harmful interference to Simón Bolívar because that satellite's Ku-band service is directed towards South America. Specifically, Simón Bolívar's Ku-band beam covers Cuba and South America and does not cover the United States. Consequently, the VeneSat satellite receive antenna gain contours roll-off over the United States resulting in decreasing receive gain. As a result, Simón Bolívar's receive antenna gain will be sufficiently reduced at EBC's earth station locations in Cheyenne, Wyoming, and Gilbert, Arizona, to ensure the earth stations do not cause harmful interference to the satellite. Furthermore, the technical characteristics of EBC's telemetry, tracking and control ("TT&C") antennas further reduce the potential interference into VeneSat's satellite. Specifically, EchoStar 8's command carrier transmissions will be performed from these two TT&C antennas, which have a ground transmit antenna gain isolation of at least 32.5 dB towards the VeneSat satellite.

⁷ See File Nos. SES-STA-20110328-00370, SES-STA-20110328-00371 (filed Mar. 28, 2011).

The combined isolation of the Simón Bolívar receive contours, the satellites' spatial separation of one degree and the technical characteristics of EBC's antenna will result in an isolation or C/I level of at least -57 dB. Therefore, the EchoStar 8 command carrier operation over the 14 GHz frequency will not interfere with Simón Bolívar's operations.

The next closest Ku-band satellites are Horizons 2, located at 74.0° W.L., and AMC 2 at 78.9° W.L. EBC's earth stations are operating according to the Commission's two-degree spacing requirements, and therefore will not cause harmful interference into either satellite. Furthermore, EBC is able to change the command carrier's polarization to further protect against interference.

Moreover, EBC will operate the earth stations to conduct TT&C operations while EchoStar 8 is operating at 77.0° W.L. in accordance with the conditions imposed on EchoStar's original STA.⁸

III. WAIVER PURSUANT TO SECTION 304 OF THE ACT

In accordance with Section 304 of the Communications Act of 1934, as amended, 47 U.S.C. § 304, EBC hereby waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise.

IV. CONCLUSION

For the foregoing reasons, EBC respectfully requests the grant of its application for an STA to operate two ALSAT FSS transmit/receive earth stations (Call Signs E070015 and E980127) to provide only TT&C for the EchoStar 8 satellite at 77.0° W.L. for the remainder of

⁸ See Stamp Grant, File Nos. SES-STA-20110328-00370, SES-STA-20110328-00371 (granted Apr. 18, 2011).

the STA period granted to EchoStar – i.e., June 14, 2011⁹ – upon Commission consent to EchoStar’s application for *pro forma* assignment of these earth stations.¹⁰

Respectfully submitted,

Pantelis Michalopoulos
Stephoe & Johnson LLP
1330 Connecticut Avenue, NW
Washington, D.C. 20036
(202) 429-3000
Counsel for EchoStar Broadcasting Corporation

/s/
Alison Minea
Corporate Counsel
EchoStar Broadcasting Corporation
1110 Vermont Avenue, NW, Suite 750
Washington, D.C. 20005
(202) 293-0981

May 25, 2011

⁹ See Stamp Grant, File Nos. SES-STA-20110328-00370, SES-STA-20110328-00371 (granted Apr. 18, 2011).

¹⁰ See File No. SES-ASG-20110228-00554 (filed Feb. 24, 2011).