

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

In the Matter of)	
)	
DISH Operating L.L.C.)	File No. SAT-LOA-2014_____
)	
Application for Authority to Launch and)	
Operate the EchoStar 18 Satellite)	
at 109.9° W.L.)	

APPLICATION

Pursuant to Sections 308, 309, and 319 of the Communications Act of 1934, as amended, and Part 25 of the Commission’s rules,¹ DISH Operating L.L.C. (individually or together with its affiliates, “DISH”) requests authority to launch and operate the EchoStar 18 satellite on the 29 Direct Broadcast Satellite (“DBS”) channels already licensed to DISH at the nominal 110° W.L. orbital location. Specifically, the satellite will operate from the 109.9° W.L. location. Because DISH is still analyzing the optimal time to place EchoStar 18 into service, DISH requests authority to utilize the EchoStar 18 satellite as a spare until it provides thirty (30) day notice to the Commission that it plans to place the satellite into service to take over for EchoStar 10 at the 110° W.L. orbital location. Grant of this application will serve the public interest by allowing DISH to preserve, improve, and supplement the DBS service provided from 110° W.L. to millions of households. Because DISH currently plans to launch the satellite in the fourth quarter of 2015, DISH respectfully requests grant of this application by August 1, 2015.

¹ 47 U.S.C. §§ 308, 309, 319; 47 C.F.R. Part 25.

I. INTRODUCTION AND BACKGROUND

DISH's affiliate, DISH Network L.L.C. ("DISH Network"), is the operator of the DISH Network television service, the nation's third largest multichannel video programming service with over 14 million subscribers. To provide this service, DISH utilizes capacity on 12 owned and leased satellites operating in the DBS and Fixed Satellite Service ("FSS") frequency bands. At the nominal 110° W.L. orbital location, DISH is licensed to operate over 29 of the available 32 DBS channels (specifically channels 1-27, 29, and 31).² Currently, DISH provides service over these channels from the 110° W.L. cluster utilizing both the EchoStar 10 and EchoStar 11 satellites. Of these, EchoStar 10 is a spot-beam satellite used to provide a mix of local stations to many of the nation's Designated Market Areas ("DMAs").³ EchoStar 11 is a CONUS-beam satellite devoted to the transmission of national programming.⁴ Like EchoStar 10, EchoStar 18 is a spot-beam satellite. Its spot beams are configured in general alignment to those of EchoStar 10, except that the design of EchoStar 18, combined with technological developments, ensures certain improvements in coverage. DISH anticipates that EchoStar 18 will be ready for launch in late 2015. DISH anticipates that, eventually, EchoStar 18 will take over for EchoStar 10 in providing service from the 110° W.L. orbital cluster. However, because of a variety of business considerations, the timing is uncertain. After launch and in-orbit testing ("IOT"),⁵ EchoStar 18

² See, e.g., EchoStar Satellite Corporation, *Memorandum Opinion and Order*, 15 FCC Rcd. 6727, 6728 ¶¶ 2-3 (1999). DIRECTV holds the authorization to operate on channels 28, 30, and 32 at the nominal 110° W.L. orbital location. See United States Satellite Broadcasting Co., Inc. and DIRECTV Enterprises, Inc., *Memorandum Opinion and Order*, 14 FCC Rcd. 4585 (1999).

³ See EchoStar Satellite Operating Corporation, Call Sign S2694, SAT-LOA-20051221-00267 (granted May 11, 2006).

⁴ See EchoStar Satellite Operating Corporation, Call Sign S2738, SAT-LOA-20070622-00085 (granted Jan, 11, 2008).

⁵ DISH may need to file for special temporary authority before launch in order to perform IOT from a separate orbital location.

will proceed directly to 109.9° WL, but, based on current plans, would not provide service initially. Once EchoStar 18 begins providing service, EchoStar 10 will initially remain at 110.2° W.L. serving as an in-orbit spare, and may ultimately be relocated subject to any appropriate Commission authorizations. Accordingly, DISH requests authority to launch and operate EchoStar 18. Upon appropriate notice to the Commission, DISH asks for authority to place EchoStar 18 into service to take over for EchoStar 10. EchoStar 11 will continue to provide nationwide service from the 110° W.L. orbital cluster.

EchoStar 18 is being manufactured by Space Systems/Loral on the manufacturer's 1300 platform.⁶ The satellite will provide DBS service to CONUS, Alaska, Hawaii, and Puerto Rico from the nominal 110° W.L. orbital location. As set forth in further detail in the Technical Appendix, it will operate within the 17.3-17.8 GHz Broadcasting Satellite Service ("BSS") feeder uplink band (ITU Appendix 30A) and the 12.2-12.7 GHz BSS downlink band (ITU Appendix 30), using the 29 channels licensed to DISH at the nominal 110° W.L. orbital location.⁷

The satellite has six uplink spot beams (operating in both circular polarizations). The six primary feeder link sites are located at Cheyenne, Wyoming; Gilbert, Arizona; Monee, Illinois; Mount Jackson, Virginia; New Braunfels, Texas; and Spokane, Washington. The satellite will be capable of operating with up to 109 downlink spot beams and transmitting up to 169

⁶ DISH began construction of the satellite in 2013. DISH Operating L.L.C., Annual Satellite Report of DISH Operating L.L.C. for Fixed Satellite Service Authorizations (filed July 1, 2013).

⁷ The satellite is capable of using all 32 DBS uplink channels. It is also capable of using downlink channels 16 and 18 through 32. However, DISH is not seeking authority for, and will not operate on, channels 28, 30, and 32 at the nominal 110° W.L. orbital location, since DISH does not hold the authorizations for these channels in the cluster.

simultaneously active channels.⁸ Spacecraft Telemetry, Tracking and Control (“TT&C”) functions will take place from FCC-authorized, fully redundant TT&C earth station and satellite control facilities located in Cheyenne, Wyoming, and Gilbert, Arizona. Consistent with Commission rules, TT&C transmissions will take place at the edges of the 17.3-17.8 GHz uplink band and 12.2-12.7 GHz downlink band for all phases of the mission.⁹

II. THIS APPLICATION IS TECHNICALLY AND LEGALLY COMPLETE

DISH submits all of the technical information required by Part 25 of the Commission’s Rules, including Sections 25.114 and 25.148,¹⁰ in this narrative and the accompanying Technical Annex (Attachment A), Form 312, and Schedule S. Because the satellite will operate on the channels already assigned to and used by DISH at the nominal 110° W.L. orbital location, this application is not subject to the “freeze” on new DBS applications currently in place.¹¹

The attached Form 312 and accompanying attachments demonstrate DISH’s compliance with the Commission’s basic legal qualifications. DISH holds numerous FCC satellite licenses, and its legal qualifications are a matter of record before the Commission.¹² The Technical Annex shows that the satellite will offer DBS service to Alaska and Hawaii, in compliance with

⁸ The satellite will have a total of 78 Traveling Wave Tube Amplifiers (“TWTAs”), which include forty-nine 150 Watt TWTAs, twenty-four 90 Watt TWTAs, and five 35 Watt TWTAs. The total number of simultaneously active TWTAs is 61.

⁹ See 47 C.F.R. § 25.202(g); see also Technical Annex § A.5.

¹⁰ See 47 C.F.R. §§ 25.114, 25.148.

¹¹ See Public Notice, Direct Broadcast Satellite (DBS) Auction Nullified: Commission Sets Forth Refund Procedures for Auction No. 52 Winning Bidders and Adopts a Freeze on All New DBS Service Applications, FCC 05-213, at 2 (rel. Dec. 21, 2005) (“*DBS Freeze*”).

¹² See, e.g., DBSD North America, Inc., Debtor-in-Possession, *Order*, 27 FCC Rcd. 2250, 2255-56 ¶ 13 n.45 (2012).

the Commission's geographic service requirements.¹³ The Technical Annex also shows that the satellite is in compliance with the Commission's orbital debris mitigation rules.¹⁴

DISH intends to operate all the transponders on EchoStar 18 on a non-broadcast, non-common carrier basis.¹⁵ The satellite's capacity will be used by DISH Network to provide multichannel video programming services to CONUS, Alaska, Hawaii, and Puerto Rico.

III. THE PUBLIC INTEREST WARRANTS GRANT OF THIS APPLICATION

Grant of this application will serve the public interest because it will allow DISH to continue and expand the video programming services it offers to American consumers. EchoStar 18 will buttress DISH's ability to provide local-into-local service and high-definition ("HD") programming to DISH Network subscribers across the country. Given consumers' increasing demand for high-quality, high-resolution content, the ability to provision local broadcast television service in HD, and to expand and improve the quality of national HD programming, is becoming increasingly important to DISH's competitive position. EchoStar 18 will help DISH provide this high-quality, high-resolution content to consumers. As the Commission is aware, DISH remains severely bandwidth constrained, especially compared to the systems of its cable and telephone competitors.

IV. THERE ARE NO COUNTERVAILING PUBLIC INTEREST CONSIDERATIONS

There are no countervailing considerations to these public interest benefits, because EchoStar 18's operations will not cause harmful interference to any other authorized user of spectrum. As noted above, DISH shares the 110° W.L. orbital cluster with DIRECTV. The

¹³ See 47 C.F.R. § 25.148(c); *see also* Technical Annex § A.5.

¹⁴ See 47 C.F.R. § 25.114(d)(14); *see also* Technical Annex § A.2.

¹⁵ See 47 C.F.R. §§ 25.114(c)(11), 25.114(d)(11).

operation of EchoStar 18 is within the power limits set forth in the coordination agreement between the two operators.¹⁶

DISH also expects to be able to coordinate the satellite successfully with other Region 2 BSS networks. There are seven adjacent BSS networks that are deemed to be affected by the proposed operations of EchoStar 18 at 109.9° W.L., only four of which have any current, or, from what DISH has been able to find, near-term pending operations. As for the United Kingdom's BERMUDASAT-1 and BERMUDASAT-1A networks at 96.2° W.L., DISH expects coordination to be readily achieved given the large orbital separation.¹⁷ Canada's networks at 129° W.L. and 138° W.L. are also deemed to be affected, but again DISH expects coordination for these networks to be straightforward given the large orbital separation.¹⁸ Finally, the Netherlands' network at 125° W.L. and the United Kingdom's networks at 105.5° W.L. and 133.5° W.L. are also deemed to be affected, but DISH has found no evidence that these networks are under construction or scheduled for launch.¹⁹

DISH plans to operate the satellite at the 109.9° W.L. location within a station keeping box of ± 0.5 degrees.²⁰ This will ensure the safe physical operation of the satellite within the cluster, where other satellites are located at 110.0° W.L. (EchoStar 11), 110.1° W.L. (DIRECTV 5), and 110.2° W.L. (EchoStar 10).

¹⁶ DISH and DIRECTV entered into a new coordination agreement for the 110° W.L. orbital location that became effective September 12, 2014.

¹⁷ Technical Annex § A.6.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *See* 47 C.F.R. § 25.148(c).

LIST OF ATTACHMENTS AND EXHIBITS TO APPLICATION

Attachment A – Technical Annex to Supplement Schedule S

Exhibits to FCC Form 312 and Schedule B

Exhibit A – Response to Question 36

Exhibit B – Response to Question 40