

## EXHIBIT 1

### DESCRIPTION OF PROPOSED MODIFICATION (Response to FCC Form 312, Question 43)

Pursuant to 47 C.F.R. § 25.117, EchoStar Operating L.L.C. (together with its affiliates, “EchoStar”) requests to modify the licenses of two additional earth stations in Cheyenne, Wyoming (Call Sign E980005) and Gilbert, Arizona (Call Sign E070014) to add EchoStar 12 at 86.4° W.L. as a point of communications for telemetry, tracking, and control (“TT&C”).<sup>1</sup>

The primary feeder link site is expected to be located in Colombia. Primary TT&C earth stations will be located at EchoStar’s satellite control facilities in Blackhawk, SD, and Quicksburg, VA. Additionally, EchoStar will operate the proposed additional earth stations in Cheyenne and Gilbert for secondary, backup TT&C communications. EchoStar 12 will operate at 86.4° W.L. on a regular basis in accordance with the United Kingdom’s filings with the International Telecommunication Union (“ITU”) for the IOMSAT-S21 network. Technical and orbital debris mitigation information required under 47 C.F.R. § 25.114 are provided in the Schedule S and Technical Annex filed with the pending modification application to move and EchoStar 12 at 86.4° W.L.<sup>2</sup>

#### I. BACKGROUND

Launched in July 2003,<sup>3</sup> the EchoStar 12 satellite is capable of operating in the 17.3-17.8 GHz broadcast-satellite service (“BSS”) feeder uplink (ITU Appendix 30A) and 12.2-12.7 GHz

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<sup>1</sup> EchoStar currently has pending modification applications to move and operate EchoStar 12 at 86.4° W.L., as well as to operate two other earth stations in Blackhawk, SD, and Quicksburg, VA for associated TT&C communications. *See* IBFS File Nos. SAT-MOD-20170626-00099, SES-MFS-20170626-00678 & SES-MFS-20170626-00677 (June 26, 2017).

<sup>2</sup> *See* IBFS File No. SAT-MOD-20170626-00099, Sched. S & Attachment A (Technical Annex).

<sup>3</sup> *See* Letter from Benjamin J. Griffin, Counsel for Rainbow DBS Company LLC, to Marlene H. Dortch, Secretary, FCC, IBFS File No. SAT-MOD-20020408-00062 (Oct. 16, 2003).

BSS downlink (ITU Appendix 30) bands. In 2014, the Commission extended EchoStar 12's license term for an additional 9 years until July 31, 2022.<sup>4</sup> For the past several years, EchoStar 12 has been operating as an in-orbit spare at the 61.5° W.L. orbital cluster, providing backup capacity for service (via DISH Network Corporation) to millions of satellite television subscribers.

EchoStar 12 currently operates as an in-orbit spare at 61.2° W.L. on a regular basis, pursuant to notification under 47 C.F.R. § 25.118(e).<sup>5</sup> The satellite is capable of safe transition to, and operation from, the 86.4° W.L. orbital location utilizing the mission described for service.

Based on market analysis and assessment of EchoStar 12's capabilities, EchoStar seeks to place the satellite into more productive use at 86.4° W.L. to continue the globalization of its services by developing new services to the Colombian, maritime, and other foreign markets. As demonstrated in Section II below, the proposed operations will provide substantial public interest benefits.

EchoStar 12 will operate in accordance with the United Kingdom's ITU filings for the IOMSAT-S21 network on a regular basis. EchoStar 12 will remain a U.S.-licensed satellite operating under FCC jurisdiction. As licensee of the satellite, EchoStar will continue to maintain operational control of EchoStar 12 at all times.<sup>6</sup>

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<sup>4</sup> See EchoStar, Stamp Grant, IBFS File No. SAT-MOD-20130905-00113 (Feb. 27, 2014).

<sup>5</sup> See Letter from Jennifer L. Larson, EchoStar, to Marlene H. Dortch, Secretary, FCC, IBFS File No. SAT-MOD-20130905-00113 (Sept. 2, 2016);

<sup>6</sup> To the extent required, EchoStar requests that the Commission initiate an exchange of letters with the United Kingdom confirming the proposed operations of EchoStar 12, a U.S.-licensed satellite, under U.K. ITU filings.

## II. THE PROPOSED OPERATIONS WILL SERVE THE PUBLIC INTEREST

EchoStar 12's operations at 86.4° W.L. will offer substantial public interest benefits. As an initial matter, the Commission has a longstanding policy of leaving fleet management decisions to satellite operators because doing so generally serves the public interest.

Specifically, the Commission has determined that the satellite licensee "is in a better position to determine how to tailor its system to meet the particular needs of its customers."<sup>7</sup> Thus, the Commission "will generally grant a [satellite] licensee's request to modify its system, provided there are no compelling countervailing public interest considerations."<sup>8</sup>

Additionally, the Commission has found that the public interest is served by "expanding the presence of U.S. satellite operators in Latin America."<sup>9</sup> The Commission also has found that encouraging satellite service to international markets advances the public interest in numerous ways:

First, permitting international service would expand the potential audience for American programming, and could stimulate economic growth. Second, importing uplinked foreign programming would enable operators to better satisfy the needs and desires of enhance[d] services to multi-lingual subscribers in the U.S. Third, operators would enjoy economies of scale for both themselves and their customers if non-English language programs could simultaneously serve same-language communities in the U.S. and in foreign markets.<sup>10</sup>

Here, EchoStar 12's operations at 86.4° W.L. will allow EchoStar, a U.S. company, to expand its presence in the Colombian, maritime, and other foreign markets, thus strengthening its

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<sup>7</sup> *AMSC Subsidiary Corporation*, Order and Authorization, 13 FCC Rcd 12316, 12318 ¶ 8 (IB 1998).

<sup>8</sup> *Id.*; see also *SES Americom, Inc.*, Order and Authorization, 21 FCC Rcd. 3430, 3433 ¶ 8 (2006) (FCC "generally has allowed satellite operators to rearrange satellites in their fleet to reflect business and customer considerations where no public interest factors are adversely affected").

<sup>9</sup> See *Intelsat LLC*, Order and Authorization, Order and Authorization, 19 FCC Rcd 2775, 2777 ¶ 9 (IB 2004).

<sup>10</sup> See *Domestic Fixed Satellites and Separate Int'l Satellite Sys.*, Report and Order, 11 FCC Rcd 2429, 2439 ¶ 67 (1996).

competitiveness and ability to create jobs and contribute to U.S. economic growth. Moreover, the proposed operations will serve the public interest by permitting development of an orbital location for potential new services that otherwise would not be available to the public.<sup>11</sup> The proposed operations also will allow more productive use of EchoStar 12, which currently serves as a secondary back-up satellite at the 61.2° W.L orbital location, for development of new services to the public.<sup>12</sup>

Thus, the public interest benefits resulting from the proposed modification are fully consistent with those that the Commission has found to support authorizing satellite service to international markets, particularly in Latin America. At the same time, the proposed operations will cause no harmful interference to other authorized services, as demonstrated in the attached Technical Annex.

### **III. OPERATIONAL PARAMETERS**

EchoStar will operate EchoStar 12 at the 86.4° W.L. orbital location subject to the conditions typically imposed on U.S.-licensed satellites operating in accordance with non-U.S. ITU filings. These conditions include the following:

1. EchoStar will maintain full operational control of EchoStar 12 at all times.
2. EchoStar will maintain EchoStar 12 at the 86.4° W.L. orbital location with an east-west longitudinal station-keeping tolerance of +/-0.05 degree.

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<sup>11</sup> See *Columbia Communications Corp.*, Memorandum Opinion and Order, 7 FCC Rcd 122, ¶ 16 (1991); see also *EchoStar Satellite Operating Co.*, Order and Authorization, 28 FCC Rcd 4229, 4232 ¶ 9 (IB 2013) (“*EchoStar STA Order*”), *aff’d*, 28 FCC Rcd 10412 (2013), *petition for review dismissed sub nom. Spectrum Five LLC v. FCC*, Nos. 13-1231 & 1232 (D.C. Cir. July 11, 2014); *SES Americom, Inc.*, Memorandum Opinion and Order, 20 FCC Rcd 436, ¶ 8 (IB 2005); *PanAmSat Licensee Corp.*, Order and Authorization, 19 FCC Rcd 2012, ¶ 11 (IB 2004).

<sup>12</sup> See *EchoStar STA Order*, 28 FCC Rcd at 4232 ¶ 9.

3. In connection with the provision of service in any particular country, EchoStar will comply with the applicable laws, regulations, rules, and licensing procedures of that country.

Further, EchoStar is willing to accept an additional condition that would prohibit using EchoStar 12's operations at 86.4° W.L. to bring into use the IOMSAT-S21 network under ITU rules. Although such condition of license is not required under the FCC's rules and policies, EchoStar is offering to accept such condition to facilitate prompt approval of this application and avoid any doubts as to the public interest objectives of its proposed operations.

## EXHIBIT 2

### OWNERSHIP AND CORPORATE OFFICERS AND DIRECTORS (Response to FCC Form 312, Question 40)

EchoStar Satellite Operating Corporation is a wholly owned subsidiary of EchoStar Satellite Services, L.L.C., a Colorado limited liability company, which in turn is a wholly owned subsidiary of Hughes Satellite Systems Corporation (“Hughes”), a Colorado corporation. Hughes is a wholly owned subsidiary of EchoStar Corporation (“EchoStar”), a publicly traded Nevada corporation.<sup>1</sup>

The stockholders owning of record and/or voting 10 percent or more of the voting stock of EchoStar as of approximately May 30, 2017, unless otherwise indicated below, include the following:

<b>Ownership Interest</b>	<b>Citizenship</b>	<b>Approx. Equity Interest<sup>2</sup></b>	<b>Approx. Voting Interest</b>
Charles W. Ergen Chairman EchoStar Corporation 100 Inverness Terrace East Englewood, CO 80112	USA	39.2%	68.6%

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<sup>1</sup> The address for all companies listed is 100 Inverness Terrace E., Englewood, CO 80112.

<sup>2</sup> Based on Schedule 13D/A filed with the SEC on May 31, 2017 (the “Ergen 13D”). According to the Ergen 13D, outstanding equity interests include Class A Common Stock, including any Class A Common Stock to be issued after giving effect to the exercise of options and vesting of restricted stock units held by such person that are either currently exercisable or vested or may become exercisable or may vest within 60 days of May 30, 2017, entitled to one vote per share, and Class B Common Stock, entitled to ten votes per share. The calculation assumes the conversion of all Class B Common Stock outstanding as of May 26, 2017 to Class A Common Stock.

<b>Ownership Interest</b>	<b>Citizenship</b>	<b>Approx. Equity Interest<sup>2</sup></b>	<b>Approx. Voting Interest</b>
Ergen Three-Year 2015 SATS GRAT <sup>3</sup> William R. Gouger, as Trustee 5701 S. Santa Fe Drive Littleton, Colorado 80123	USA	7.3%	13.3%
Ergen Three-Year 2017 SATS GRAT <sup>4</sup> Cantey M. Ergen, as Trustee 9601 S. Meridian Blvd., Englewood, Colorado 80112	USA	8.0%	14.5%
Putnam Investments LLC <sup>5</sup> One Post Office Square Boston, MA 02102	Canada	13.9%	2.6%

## **CORPORATE OFFICERS AND DIRECTORS**

<b>EchoStar Corporation<sup>6</sup></b>	
<b>Executive Officers</b>	
Charles W. Ergen	Chairman
Michael T. Dugan	Chief Executive Officer and President

<sup>3</sup> Based on Schedule 13D/A filed with the SEC on May 31, 2017 (the “Gouger 13D”). According to the Gouger 13D, the trustee for certain trusts established by Mr. Ergen for the benefit of his family, including the Ergen Three-Year 2015 SATS GRAT, is Mr. William R. Gouger, a U.S. citizen and manager of SC Management, LLC, whose principal business is management services, including estate planning. In his capacity as trustee for all of the aforementioned trusts, subject to certain restrictions, Mr. Gouger, is deemed to beneficially own, and has the ability to exercise voting power over, shares representing 12.4% of the equity interests and 22.5% of the voting interests in EchoStar (assuming no conversion of Class B Common Stock).

<sup>4</sup> Based on the Ergen 13D. According to the Ergen 13D, the trustee for the Ergen Three-Year 2017 SATS GRAT, established by Mr. Ergen for the benefit of his family, is Mr. Ergen’s spouse, Ms. Cantey M. Ergen, a U.S. citizen and a Senior Advisor and member of the Board of Directors of DISH Network Corporation. In her capacity as trustee for all of the aforementioned trust, subject to certain restrictions, Mrs. Ergen, is deemed to beneficially own, and has the ability to exercise voting power over, shares representing 38.3% of the equity interests and 68.5% of the voting interests in EchoStar (assuming no conversion of Class B Common Stock).

<sup>5</sup> Based on Schedule 13G/A filed with the SEC on February 14, 2017.

<sup>6</sup> The address for all officers and directors of EchoStar Corporation is 100 Inverness Terrace E., Englewood, CO 80112.

David J. Rayner	Executive Vice President, Chief Financial Officer, Chief Operating Officer and Treasurer
Anders N. Johnson	Chief Strategy Officer and President, EchoStar Satellite Services L.L.C.
Pradman P. Kaul	President, Hughes Communications, Inc.
Dean A. Manson	Executive Vice President, General Counsel and Secretary
Kranti K. Kilaru	Executive Vice President, Business Systems

<b>Board of Directors</b>	
Charles W. Ergen	Chairman of the Board
Michael T. Dugan	Chief Executive Officer, President and Director
R. Stanton Dodge	Director
Anthony M. Federico	Director
Pradman P. Kaul	President, Hughes Communications, Inc. and Director
Tom A. Ortolf	Director
C. Michael Schroeder	Director
William D. Wade	Director

<b>Hughes Network Systems, LLC<sup>7</sup></b>	
<b>Officers</b>	
Pradman P. Kaul	President
Grant A. Barber	Exec. Vice President and Chief Financial Officer
T. Paul Gaske	Exec. Vice President, North American Division
Adrian Morris	Exec. Vice President, Engineering
Deepak V. Dutt	Vice President, Treasurer
Dean A. Manson	Exec. Vice President, General Counsel & Secretary
Joseph Turitz	Vice President, Asst. General Counsel & Asst. Secretary

<b>Board of Managers:<sup>8</sup></b>	
Pradman P. Kaul	Sole Manager

<sup>7</sup> The address for all officers and directors of HNS is 11717 Exploration Lane, Germantown, Maryland 20876.

<sup>8</sup> Managers of an LLC perform functions equivalent to corporate directors.



### EXHIBIT 3

#### OTHER LICENSES AND APPLICATIONS (Response to FCC Form 312, Question 36)

On July 26, 2011, the FCC declared null and void an authorization of EchoStar Corporation, the parent company of EchoStar Satellite Operating Corporation (together with their affiliates, “EchoStar”), to construct, launch, and operate a new Direct Broadcast Satellite at 86.5° W.L. for failure to meet the critical design review milestone, and rejected EchoStar’s request to modify its 86.5° W.L. authorization to allow the in-orbit EchoStar 8 satellite to provide service from that orbital location.<sup>1</sup>

The FCC also has denied a few of EchoStar’s applications for initial license or modification.<sup>2</sup>

The FCC has dismissed, but not denied on the merits, a few of EchoStar’s license applications without prejudice to refiling.<sup>3</sup>

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<sup>1</sup> See *EchoStar Corporation*, Memorandum Opinion and Order, 26 FCC Rcd 10,442 (IB 2011).

<sup>2</sup> See *Satellite Communications Services Information Re: Actions Taken*, Public Notice, Rpt. No. SES-00847, at 27 (IB rel. Aug. 16, 2006) (denying HNS License Sub, LLC’s, request for extension of construction milestones regarding File Nos. SES-MOD-20060404-00560 and SES-MOD-20060404-00561); *EchoStar Satellite LLC*, Memorandum Opinion and Order, 19 FCC Rcd 7846 (IB 2004) (denying applications to launch and operate four geostationary satellites because of interference concerns); *EchoStar Satellite LLC*, Order, 20 FCC Rcd 12027 (IB 2005); *EchoStar Satellite Corporation*, Memorandum Opinion and Order, 17 FCC Rcd 8831 (IB 2002) (denying request to extend construction milestone dates); *EchoStar Satellite Corporation*, Memorandum Opinion and Order, 16 FCC Rcd 14300 (IB 2001).

<sup>3</sup> See, e.g., Letter from Robert G. Nelson, Chief, Satellite Division, to Pantelis Michalopoulos, Counsel for EchoStar Corporation, 24 FCC Rcd 7132 (IB 2009); *EchoStar Corporation, Application to Operate a C-Band Geostationary Satellite Orbit Satellite in the Fixed-Satellite Service at the 84.9° W.L. Orbital Location*, Memorandum Opinion and Order, 25 FCC Rcd 10193 (IB 2010); Letter from Paul E. Blais, Chief, Systems Analysis Branch, Satellite Division, to Alison Minea, Corporate Counsel, EchoStar Broadcasting Corporation, 28 FCC Rcd 10214 (IB 2013); Letter from Paul E. Blais, Chief, Systems Analysis Branch, Satellite Division, to Alison Minea, Corporate Counsel, EchoStar Broadcasting Corporation, 28 FCC Rcd 10216 (IB 2013).