

Before the
FEDERAL COMMUNICATIONS COMMISSION
 Washington, DC 20554

In the Matter of:

ECHOSTAR SATELLITE CORPORATION

**Application for Authority to Construct,
 Launch and Operate a Direct Broadcast
 Satellite System Comprised of Three
 Satellites in the 17 GHz and 25
 GHz Bands.**

79° W.L.O.
 File No. SAT-LOA-20020328-
 00050

callsign: S2440
 see also SAT-AMP-20050118-002
 SAT-AMP-20080114-00018
 SAT-AMP-20080213-00005

APPLICATION

Pursuant to Sections 308, 309 and 319 of the Communications Act, as amended, 47 U.S.C. §§ 308, 309, 319, and Section 100.13 of the Commission's Rules, 47 C.F.R. § 100.13, EchoStar Satellite Corporation, a wholly-owned subsidiary of EchoStar Communications Corporation ("EchoStar"), hereby applies for authority to construct, launch and operate a new Direct Broadcast Satellite ("DBS") system comprised of three satellites using the 17 GHz and 25 GHz Broadcast-Satellite Service ("BSS") frequency bands ("DBS Expansion Band") recently allocated by the Commission to provide new and innovative DBS services.¹ Subject to a decision by the Commission to develop an orbital spacing plan for the DBS Expansion Band,

4/20/09

To: Condyball

Term Dates

From: [Signature]

Approved: [Signature]

Call Sign: S2440 Grant Date

(or other identifier)

From: [Signature]

Approved: [Signature]

GRANTED

International Bureau

FEDERAL COMMUNICATIONS COMMISSION

¹ See *In the Matter of Resignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use*, Report and Order, 15 FCC Rcd 13430 (2000) (the "DBS Expansion Allocation Order"), *reconsideration denied in part* First Order on Reconsideration, FCC 01-323 (rel. Nov. 1, 2001) ("18 GHz Reconsideration Order").

Attachment to Grant
IBFS File Nos. SAT-LOA-20020328-00050, SAT-AMD-20050118-00247,
SAT-AMD-20080114-00018, and SAT-AMD-20080213-00044
Call Sign: S2440
April 20, 2009

EchoStar Corporation's (EchoStar) request for authority to construct, launch, and operate a 17/24 GHz Broadcasting-Satellite Service (BSS) space station, EchoStar EX-3, at the 79.0° W.L. orbital location, which is an Appendix F location as set forth in the *17/24 GHz BSS Report and Order*, FCC 07-76, 22 FCC Rcd 8842 (rel. May 4, 2007), IS GRANTED.¹ Accordingly, EchoStar is authorized to operate its BSS space station, EchoStar EX-3, at the 79.0° W.L. orbital location, using the 17.3-17.8 GHz (space-to-Earth) and the 24.75-25.25 GHz (Earth-to-space) frequency bands, with the 17.7-17.8 GHz (space-to-Earth) frequency band limited to international service only, in accordance with the terms and conditions contained in its application, the Federal Communication Commission's rules not waived herein, and the conditions of this attachment.

1. EchoStar is authorized to operate its 17/24 GHz BSS space station at the 79.0° W.L. orbital location up to the maximum power flux density limits defined in Sections 25.208(c) and (w) of the Commission's rules, 47 C.F.R. §§ 25.208(c) and (w), subject to the actual technical parameters in its application.
2. EchoStar shall maintain its 17/24 GHz BSS space station within an east-west longitudinal station-keeping tolerance of $\pm 0.05^\circ$ of the assigned 79.0° W.L. orbital location.
3. EchoStar, when designing its system, is reminded to take into consideration the geographic service requirements of Section 25.225 of the Commission's rules, 47 C.F.R. § 25.225.
4. EchoStar's request for a waiver of Section 25.202(g) of the Commission's rules, 47 C.F.R. § 25.202(g), IS GRANTED. Section 25.202(g) requires that "telemetry, tracking and telecommand functions for U. S. domestic satellites shall be conducted at either or both edges of the allocated band(s). Frequencies, polarization, and coding shall be selected to minimize interference into other satellite networks and within their own satellite system." EchoStar seeks a waiver of this rule in two respects. First, EchoStar seeks to operate its telemetry, tracking, and telecommand (TT&C) links at the edges of the 12.2-12.7 GHz (space-to-Earth) Direct Broadcast Satellite (DBS) service band and associated

¹ The application was placed on Public Notice as accepted for filing on July 2, 2008. Policy Branch Information, Satellite Space Applications Accepted for Filing, *Public Notice*, Report No. SAT-00535 (rel. July 2, 2008). Comments were filed by Pegasus Development DBS Corporation (Pegasus) and SES Americom Inc. (SES) on August 1, 2008. No petitions to deny were filed against this application. In a comment filed on all pending 17/24 GHz BSS applications, Pegasus sought a "clarification" regarding Commission policies relating to 47 C.F.R. §§ 25.158(c) (prohibition on transfer of place in application queue) and 25.165 (bond requirement). The issues raised by Pegasus are not relevant to the processing of this application but, instead, relate to a request to assign an application to Pegasus from DIRECTV Enterprises, LLC (DIRECTV). IBFS File No. SAT-AMD-20080916-00188. Accordingly, we will not address Pegasus's comment in this grant.

17.3-17.8 GHz (Earth-to-space) feeder-link frequency band for launch, in-orbit testing, transfer orbit, and emergency on-station TT&C communications (*Launch, In-Orbit Testing, Transfer Orbit, and Emergency on-Station TT&C Waiver*). Second, EchoStar seeks to operate its telemetry downlink at the edges of the 12.2-12.7 GHz (space-to-Earth) frequency band for regular on-station TT&C communications (*On-Station TT&C Waiver*). EchoStar IS AUTHORIZED for launch, in-orbit testing, transfer orbit, and emergency on-station TT&C communications to operate the telecommand links of EchoStar EX-3 using one megahertz of occupied bandwidth at each of the uplink center frequencies (17.309 GHz and 17.791 GHz) with horizontal polarization and to operate the telemetry and ranging links of EchoStar EX-3 using one megahertz of occupied bandwidth at each of the downlink center frequencies (12.2065 GHz and 12.6915 GHz) with vertical polarization. EchoStar IS FURTHER AUTHORIZED for regular on-station TT&C communications to operate the telemetry and ranging links of EchoStar EX-3 using one megahertz of occupied bandwidth at each of the downlink center frequencies (12.2065 GHz and 12.6915 GHz) with vertical polarization. This grant is based on the following findings:

- a. *Launch, In-Orbit Testing, Transfer Orbit, and Emergency On-Station TT&C Waiver*. The 17/24 GHz BSS is a new radiocommunication service and there are presently no global TT&C networks available in the 17.3-17.8 GHz (space-to-Earth) and the 24.75-25.25 GHz (Earth-to-space) frequency bands. In contrast, global TT&C networks exist in the 12.2-12.7 GHz (space-to-Earth) DBS frequency band and associated 17.3-17.8 GHz (Earth-to-space) frequency band. EchoStar has successfully coordinated its DBS space station operations utilizing the same frequency bands for TT&C as proposed for use on EchoStar EX-3. Nothing suggests that EchoStar will be unable to coordinate its limited term launch, in-orbit testing and emergency TT&C operations with all potentially-affected operators. Therefore, we conclude that grant of EchoStar's *Launch, In-Orbit Testing, and Emergency on-Station TT&C Waiver* will not cause interference to other licensed operations and will otherwise serve the public interest.
- b. *On-Station Downlink TT&C Waiver*. EchoStar intends to operate its 17/24 GHz BSS TT&C earth stations at the same geographic sites as the TT&C earth stations used for its DBS space stations. As a result, there is a potential for unacceptable interference between the co-located DBS uplink transmitters and the 17/24 GHz BSS telemetry downlink receivers. In particular, the interference from the high-power command and feeder-link earth station transmitters communicating with EchoStar's DBS space stations could cause overloading of sensitive telemetry earth station receivers communicating with EchoStar's 17/24 GHz BSS space stations on nearby frequencies at the same sites. This could result in an inability to receive telemetry and tracking signals from EchoStar's 17/24 GHz BSS space station. The 12 megahertz guardband set aside at both the lower and the upper edge of the 12.2-12.7 GHz DBS telemetry downlink frequency band can accommodate a number of typically one-megahertz-wide

telemetry downlink signals. Therefore, we conclude that grant of EchoStar's *On-Station Downlink TT&C Waiver* to operate in the 12.2-12.7 GHz band will not cause interference to other licensed operations and will otherwise serve the public interest.

As a condition of granting these waivers, EchoStar shall coordinate all the TT&C operations permitted pursuant to condition No. 4 with all potentially-affected operators of other radiocommunication systems. In the absence of a coordination agreement regarding such TT&C operations, EchoStar's TT&C operations permitted pursuant to condition No. 4 shall be on a non-harmful interference basis (*i.e.*, EchoStar shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating radiocommunication system). Additionally, EchoStar must accommodate future space station networks that are compliant with Section 25.202(g) of the Commission's rules. Further, in the event on-station emergency TT&C operations are conducted in the 17.3-17.8 GHz (Earth-to-space) frequency band, EchoStar's authority to conduct such operations is limited to five consecutive days ending at 12:00 midnight on the fifth day. If additional time is needed, EchoStar must file a request with the Commission for authorization to continue such operations. EchoStar shall notify the Commission, in writing, within two days of beginning on-station emergency TT&C operations in the 17.3-17.8 GHz (Earth-to-space) frequency band, stating the reasons for commencing such operations.

5. EchoStar IS AUTHORIZED for regular on-station TT&C communications to operate the telecommand uplinks of EchoStar EX-3 using one megahertz of occupied bandwidth at each of the uplink center frequencies (24.751 GHz and 25.249 GHz) with vertical polarization.
6. EchoStar's 17/24 GHz BSS space station at the 79.0° W.L. orbital location must be constructed, launched, and placed into operation in accordance with the technical parameters and terms and conditions of this authorization by these specified time periods following the date of authorization:
 - a. Execute a binding contract for construction within one year (April 20, , 2010);
 - b. Complete the Critical Design Review within two years (April20, 2011);
 - c. Commence construction within three years (April 20, 2012);
 - d. Launch and begin operations within five years (April 20, 2014); and
 - e. EchoStar must file a bond with the Commission in the amount of \$3 million, pursuant to the procedures set forth in Public Notice, DA 03-2602, 18 FCC Rcd 16283 (2003), within 30 days of the date of this grant (May 20, 2009).

Failure to meet any of these dates shall render this authorization null and void.

7. EchoStar shall complete coordination of the physical operations of the space station with operators of space stations with overlapping station-keeping volumes

within two years and two months of grant of this authorization. EchoStar shall notify the Chief, Satellite Division, in writing, within ten business days of completion of such coordination. Failure to meet this condition shall render this authorization null and void.

8. EchoStar shall file as a modification, no later than ten business days after completion of Critical Design Review, a revised statement detailing the post-mission disposal plans for the space station at end of life, including the quantity of fuel that will be reserved for post-mission disposal maneuvers. The statement must disclose the perigee altitude selected for a post-mission disposal orbit and demonstrate that the perigee altitude for a post-mission disposal orbit meets the requirements of Section 25.283(a) of the Commission's rules, 47 C.F.R. § 25.283(a).
9. This authorization and all conditions contained herein are subject to the final outcome of the Commission's rulemaking in IB Docket No. 06-123 and any requirements subsequently adopted therein.
10. EchoStar shall prepare the necessary information that may be required, for submission to the International Telecommunication Union (ITU) to initiate and complete the advance publication, international coordination, due diligence, and notification process of this space station, in accordance with the ITU Radio Regulations. EchoStar shall be held responsible for all cost recovery fees associated with these ITU filings. No protection from interference caused by radio stations authorized by other Administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual Administrations, by successfully completing coordination agreements. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments with other Administrations. 47 C.F.R. § 25.111(b).²
11. The license term for this 17/24 GHz BSS space station (Call Sign: S2440) is fifteen years and will begin to run on the date that EchoStar certifies to the Commission that the satellite has been successfully placed into orbit and its operation fully conforms to the terms and conditions of this authorization. 47 C.F.R. § 25.121(a). EchoStar shall file this certification with the Chief, Satellite Division, International Bureau, within ten business days of the space station being put into operation.
12. On June 30 of each year, EchoStar shall file a report with the International Bureau and the Commission's Columbia Operations Center in Columbia, Maryland, containing the information current as of May 31 of that year pursuant to Section 25.210(l) of the Commission's rules, 47 C.F.R. § 25.210(l).

² In its comments, SES requests that certain conditions relating to ITU procedures be included in each 17/24 GHz BSS authorization. Most of the conditions sought by SES are included in condition No. 9 of this grant, which is a standard condition on space station authorizations. SES, however, also seeks to impose a customer notification requirement. We see no reason to impose such a condition on this authorization at this time.

- 13. EchoStar is afforded 30 days from the date of release of this grant and authorization to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.
- 14. This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of the public notice indicating that this action was taken.

SAT-LOA-20020328-00050
 SAT-AMD-20050118-00247
 SAT-AMD-20080114-00018
 SAT-AMD-20080213-00044



w/conditions.

File # _____

Call Sign S2440 Grant Date 4/20/09
 (or other identifier)

Term Dates condition

From _____ To: 11

Approved: _____

Robert C. Nelson
 Chief Satellite Division

EchoStar intends to launch these satellites (designated EX-1, EX-2 and EX-3) into adjacent orbital locations at 110° W.L., 114.5° W.L. and 119° W.L., respectively, assuming a 4.5° separation between each satellite.²

As the Commission is well aware, EchoStar is a leading provider of DBS services in the Multichannel Video Programming Distribution (“MVPD”) market with over 7 million subscribers. It is also an applicant, along with Hughes Electronics Corporation (“Hughes”) and General Motors Corporation, to obtain the Commission’s approval to merge their businesses into a combined entity that will be named EchoStar Communications Corporation (“New EchoStar”).³ Even with this proposed merger, EchoStar anticipates that by the time the expansion DBS spectrum becomes available in April 2007, additional channel capacity will be needed to serve its subscribers with new and innovative DBS and other spectrum intensive services, such as more High Definition Television (“HDTV”) and interactive multimedia offerings. These services will complement the existing DBS services currently being offered over EchoStar’s current fleet of DBS satellites using the 12.2-12.7 GHz band. While the extent to which the DBS Expansion Band can be fully integrated with EchoStar’s existing DBS services remains uncertain at this time, this spectrum presents the potential for such integrated services starting in 2007.

² The Commission has indicated that it will address the orbital spacing in this band in a future proceeding that relates to service rules. *Id.* ¶ 100. EchoStar reserves the right to amend this application to reflect different orbital spacing in the DBS Expansion Band once the Commission institutes this rulemaking proceeding.

³ *See* Consolidated Application of EchoStar Communications Corporation, General Motors Corporation, Hughes Electronics Corporation for Authority to Transfer Control, CS Docket No. 01-348 (filed Dec. 3, 2001) (“Merger Application”).

I. INTRODUCTION

In the DBS Expansion Allocation Order, the Commission allocated the 17.3-17.7 GHz band to the Broadcasting-Satellite Service ("BSS") and the 24.75-25.25 GHz band to the Fixed-Satellite Service ("FSS") for BSS feeder links (Earth-to-space), effective April 1, 2007.⁴ In so doing, the Commission noted that BSS/DBS is a rapidly growing service and that additional DBS spectrum will be needed within the next decade.⁵ While this allocation will not take effect for another five years, the Commission wisely recognized that time was necessary "to provide all parties with sufficient notice . . . to design their systems to use this spectrum in the most efficient manner."⁶

The new DBS system proposed by EchoStar will consist of three state-of-the-art satellites, with one satellite nominally to be located at the 110° W.L., 114.5° W.L. and 119° W.L. orbital locations. Each satellite will be designed so that it also could be used as an in-orbit spare for the other two orbital locations in case of an in orbit failure or anomaly. Each satellite will provide DBS coverage to the continental United States ("CONUS"), Hawaii, Alaska, Puerto Rico and the U.S. Virgin Islands, plus portions of Canada, Mexico, and many Caribbean nations using the 17.3-17.8 GHz band for BSS downlinks.⁷ The satellites will use the 24.75-25.25 GHz

⁴ *See* DBS Expansion Allocation Order.

⁵ *Id.* ¶ 97.

⁶ *Id.* ¶ 99.

⁷ Although the Commission only allocated 400 MHz at 17.3-17.7 GHz to BSS in the United States (which is inconsistent with the ITU Region 2 allocation of 500 MHz of BSS spectrum at 17.3-17.8 GHz), it further indicated that it may re-examine the availability of all or part of the 17.7-17.8 GHz band for BSS applications in the future. *See DBS Expansion*

(Continued ...)

band for BSS feeder uplinks, and EchoStar currently plans to operate the feeder link and TT&C earth stations associated with its DBS Expansion Band system in Cheyenne, Wyoming and Gilbert, Arizona, where EchoStar's existing earth station complexes are located.⁸

While the extent to which this spectrum can be fully integrated with EchoStar's conventional DBS services is not entirely known at this time, the primary intended use of the proposed satellites may well be to supplement EchoStar's MVPD offerings to residential subscribers in the United States. Additional services also will be offered to business users and international consumers as regulatory approvals are obtained in other North American countries. Some of the types of programming that EchoStar anticipates providing over this system include more bandwidth-intensive HDTV programming and a wider variety of entertainment, education, informational and ethnic programming. In addition, it is anticipated that new data and multimedia services will be offered using this expansion spectrum.

EchoStar's proposed expansion system is another potentially important component in maintaining its ability to compete in the robust MVPD market. Even with the extraordinary efficiency and spectrum capacity gains that will result from the proposed merger with Hughes, EchoStar anticipates that there will be a growing number of digital cable systems and other MVPD competitors that likely will have more effective capacity than New EchoStar by

Allocation Order, at ¶ 99; *18 GHz Reconsideration Order*, at ¶¶ 30-31. Although EchoStar intends to use the 17.7-17.8 GHz band to provide service to the United States if this spectrum becomes available domestically, at a minimum EchoStar plans to use this band for international BSS services to other portions of North America, including Canada, Mexico and the Caribbean, and therefore needs Commission authority to operate in the 17.7-17.8 GHz band subject to U.S. and foreign spectrum allocations and relevant regulatory requirements.

⁸ Current plans are for the transfer orbit and on-station TT&C links to operate in the 12.2-12.7 GHz and 17.3-17.8 GHz bands, or the 17.3-17.8 GHz and 24.75-25.25 GHz bands. Separate applications for these earth stations will be submitted to the Commission at a later date.

the latter part of this decade as a result of fiber optic and advanced terrestrial wireless system upgrades. Accordingly, the prompt approval of this application will further the public interest by promoting more effective competition with the dominant cable operators in the MVPD market.

While the Commission has not adopted any special service rules for the DBS Expansion Band, EchoStar's application and the proposed expansion system specifications fully satisfy all possibly relevant requirements of the Commission's Rules.⁹ EchoStar is legally, technically, financially and otherwise qualified to construct, launch and operate the requested DBS expansion system. EchoStar's ownership structure complies fully with the DBS alien ownership rules.¹⁰ The proposed system is also technically capable of providing, and will provide, expanded DBS service to Alaska and Hawaii.¹¹ EchoStar is prepared to complete construction of the first satellite within four years of the grant of this application and place the entire expansion DBS system into operation within six years from the grant date. To the extent that new service rules are adopted by the Commission before this application is acted upon, EchoStar requests leave to supplement and amend this application to comply with such rules in accordance with standard Commission practice.

Since the DBS Expansion Band is not a planned BSS frequency band, EchoStar urges the Commission to submit promptly to the International Telecommunication Union

⁹ *See* 47 C.F.R. Part 100.

¹⁰ *See* 47 C.F.R. § 100.11.

¹¹ *See* 47 C.F.R. § 100.53(b).

("ITU") the attached Advanced Publication information to begin the process of coordinating the proposed system with other Administrations.¹²

The following information is provided to the Commission in support of this application:

II. APPLICANT NAME AND CONTACT INFORMATION

Name, address and phone number of applicant:

EchoStar Satellite Corporation
5701 South Santa Fe
Littleton, CO 80102
(303) 723-1000

Names, addresses and phone numbers of persons to be contacted:

EchoStar Satellite Corporation
Attn: Mr. David K. Moskowitz
5701 South Santa Fe
Littleton, CO 80102
(303) 723-1000

Philip L. Malet
Pantelis Michalopoulos
Carlos M. Nalda
Todd Lantor
Stephoe & Johnson LLP
1330 Connecticut Avenue, N.W.
Washington, DC 20036
(202) 429-3000

III. OWNERSHIP INFORMATION

The applicant, EchoStar Satellite Corporation, is a Colorado corporation wholly owned through two intermediate parent corporations by EchoStar Communications Corporation ("ECC"), a Nevada corporation. ECC is controlled through a family trust by Mr. Charles W.

¹² See Attachment B, hereto. This attachment also includes a letter confirming that EchoStar will be responsible for paying all fees imposed by the ITU for coordinating these satellites. *Id.*

Ergen, its founder, Chairman and Chief Executive Officer. An organizational chart and relevant ownership information is provided as Attachment C to this application. ECC is the holding company for a group of companies that deliver a complete range of satellite-related products and services to consumers throughout the world. ECC's subsidiaries hold several DBS authorizations and own and operate six operational DBS satellites operating in the 12.2-12.7 GHz band at the 61.5° W.L., 110° W.L., 119° W.L., and 148° W.L. orbital positions. A seventh satellite is currently undergoing in-orbit testing. Through its DISH Network brand, EchoStar provides DBS services in the United States to more than 7 million subscribers.¹³

IV. SERVICES TO BE PROVIDED

The primary use of the proposed system is expected to be the provision of MVPD services in the United States. It is anticipated that most of the capacity on these satellites will be used for serving the U.S.; however, at least some of the beam coverage will extend beyond the United States into portions of Canada, Mexico and the Caribbean. Subject to obtaining any necessary international regulatory approvals, EchoStar also may provide MVPD services in other ITU Region 2 countries.

As the Commission is aware, an application filed in December 2001, requests authority for the merger of EchoStar and Hughes, with the merged entity renamed EchoStar Communications Corporation ("New EchoStar"). As explained in detail in that application, the

¹³ A complete list of EchoStar's FCC authorizations, subsidiaries, and pending applications before the Commission is contained in the Merger Application at Attachments C, D, and G, and is incorporated herein by reference. In addition, on February 25, 2002, EchoStar and Hughes jointly filed an application for authority to launch and operate a new spot-beam DBS satellite at 110° W.L. in the 12.2-12.7 GHz band. This satellite will be used by New EchoStar for its "Local Channels, All Americans" plan which would offer to every U.S. consumer access to satellite-delivered local television signals to all 210 DMAs in the United States, including those in Alaska and Hawaii. *See* Application for Authority to Launch and Operate New EchoStar 1 (USABBS-16), File No. _____ (filed Feb. 25, 2002).

merger and related transactions will create an integrated, full-service satellite company better able to compete effectively in the MVPD market.¹⁴ One of the most compelling efficiencies of the proposed merger will be the elimination of the duplicative use of the DBS spectrum, which will free up substantial satellite capacity and spectrum that will be used to facilitate the offering of new and expanded programming choices to consumers and more meaningful competition to the dominant cable providers.¹⁵ Even with this expanded capacity, EchoStar anticipates that by April 2007, it will need even more spectrum resources to serve DBS subscribers with new and innovative program offerings.

Some of this programming, such as HDTV, is extremely spectrum intensive, requiring many times more bandwidth than standard NTSC video signals. To date, EchoStar has only been able to offer its subscribers a limited amount of HDTV programming due to the constraints on its spectrum capacity. Even with the merger with Hughes, New EchoStar can only commit today to offering 10-12 HDTV channels to its combined subscriber base.¹⁶ With the addition of the DBS Expansion Band, however, there will be enough capacity available to offer DBS subscribers significantly more HDTV and other programming.

EchoStar further anticipates that it will be able to offer a wider range of niche programming, including more international, foreign language, informational and educational programs, to its DBS subscribers if it had access to the DBS Expansion Band. There are approximately 8.0 million households in the United States headed by persons of foreign nationality, encompassing 22.6 million foreign-born persons living in the United States.

¹⁴ *See* Merger Application at 22-36.

¹⁵ *Id.* at 37-49.

¹⁶ *Id.* at 29.

Generally, it is not cost effective for traditional broadcasters or cable companies to serve these households because of the generally low number of such niche customers in any particular local market. These customers, along with other customers interested in receiving international and other cultural programming, create an opportunity to provide more foreign language and international content over the DISH Network.

Specialized programming and other services could also be made available to business users that are a potential large untapped market for MVPD services. EchoStar estimates that there are approximately 8 million businesses and over 200,000 schools, libraries and other institutions that desire access to high quality video, audio and data programming services. EchoStar believes that with the increased capacity provided by the DBS Expansion Band, more specialty services, data, informational, educational, foreign language and other niche programming can be directed toward this market in order to attract new subscribers.

V. PUBLIC INTEREST CONSIDERATIONS

The prompt grant of EchoStar's application for authority to construct, launch and operate a new DBS Expansion Band system is clearly in the public interest. The proposed system will benefit the public in many important respects. Most significantly, EchoStar expects that it will be able to offer a whole range of new and innovative services that otherwise could not have been made available even taking into account the planned merger with Hughes. By accessing new DBS spectrum made available by the Commission, EchoStar will better be able to serve its subscribers and compete more effectively in the MVPD market. EchoStar also will be able to provide enhanced service to more of Alaska and Hawaii.

It is well documented that there is a shortage of spectrum available for DBS in the United States. There is simply no more full-CONUS capacity in the 12.2-12.7 GHz band available to support the expansion of DBS services. Nevertheless, as the Commission has

acknowledged, the demand for additional DBS capacity only continues to grow.¹⁷ In contrast, cable operators have aggressively upgraded the capacity of their systems to allow for the digital retransmission of video programming.¹⁸ The rollout of new digital cable upgrades and related facilities has compounded cable's incumbency advantages, and allows cable operators to offer a bundle of video and services. Access to the DBS Expansion Band provides EchoStar with a unique opportunity to meet the growing need for DBS capacity, and will enable EchoStar to compete more effectively in the highly competitive MPVD market.

Consistent with the Commission's stated goals for use of the DBS Expansion Band, EchoStar's proposed system also will help foster the development of next-generation DBS services and satellite telecommunications technologies needed to implement them.¹⁹ Thus, grant of this application will assist the United States in enhancing its global leadership role in advanced satellite systems and services.

In addition, EchoStar's Expansion DBS System is designed to maximize the efficient use of orbital and spectrum resources. By operating in orbital locations that overlap the United States' existing Ku-band DBS orbital assignment plan, the EchoStar Expansion DBS System will be able to provide advanced DBS services that complement existing services without necessarily requiring customers to access additional orbit locations. In addition to

¹⁷ See *DBS Expansion Allocation Order* at ¶ 79 ("We note that BSS is a rapidly growing service, and that additional spectrum may be required for BSS within the next decade.")

¹⁸ See *Annual Assessment of the Status of Competition in the Market for the Delivery of MVPD Competition Report*, 16 FCC Rcd. 6005, 6009 (2001) ("[v]irtually all the major MSOs offer Internet access via cable modems in portions of their nationwide service areas... Many cable operators also are planning to integrate telephony and high-speed data access.")

¹⁹ See *DBS Expansion Allocation Order* at ¶ 2 ("The 18 GHz band currently serves a variety of communications needs and has the potential to provide consumers, both business and residential, with exciting new services in the years to come.")

maximizing operational and service flexibility, co-locating Ku-band and DBS Expansion Band satellites also will enable DBS operators to minimize intersystem interference and utilize the CONUS arc in an extremely efficient manner.

By enhancing competition in the MPVD market, boosting the competitiveness of DBS industry and facilitating the efficient use of orbital and spectrum resources, the proposed EchoStar DBS Expansion System will serve the public interest and simultaneously adhere to the Commission's stated policy goals for this band.²⁰ Accordingly, the Commission should not only grant this application because it is in the public interest, it should do so expeditiously to enable service in this band to begin by April 2007.

VI. DESCRIPTION OF PROPOSED SYSTEM AND INTERFERENCE ANALYSIS

A detailed technical description of EchoStar's proposed DBS Expansion Band system is set forth in Attachment A, hereto.

VII. ORBITAL ARC CONSIDERATIONS

EchoStar nominally requests three adjacent orbital locations within the 110° W.L. and 119° W.L. range for its DBS Expansion Band system separated by 4.5 degrees. This separation distance is dictated by the size of the receive antennas (nominally 45 cm) and adjacent satellite interference considerations. The requested orbital arc best matches EchoStar's existing DBS satellite resources which include the provision of its core national and local programming from Ku-band DBS satellites located at 110° W.L. and 119° W.L. EchoStar's planning with

²⁰ *See DBS Expansion Allocation Order* at ¶ 1 ("With this Report and Order, we adopt rules that will permit the efficient use of spectrum for existing and future users, and will facilitate the deployment of new services in the 17.7-20.2 GHz band.")

respect to this future spectrum is necessarily subject to change at this time. As with other aspects of the proposed system, EchoStar requests the right to revise its proposed orbital positions and the appropriate spacing in the DBS Expansion Band when the Commission institutes its rulemaking proceeding on service rules for this band.

VIII. LEGAL QUALIFICATIONS

EchoStar's legal qualifications are set forth in the Merger Application, which is incorporated herein by reference.²¹ EchoStar is not owned or controlled by aliens and further complies with all of the restrictions on alien and foreign government ownership set forth in the Communications Act of 1934, as amended,²² and the Commission's Rules.²³

IX. TECHNICAL QUALIFICATIONS -- DUE DILIGENCE MILESTONES

EchoStar's application satisfies the Commission's coverage rules for new DBS licensees. EchoStar's satellites will be capable of serving CONUS, Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands.²⁴ EchoStar is also prepared to comply with the Commission's due diligence requirements by completing contracting of the proposed system within one year of the grant of a construction permit, completing construction of the first satellite within four years of the grant, and placing the entire DBS Expansion Band system in operation within six years of the grant.²⁵

²¹ See Merger Application at Volume III.

²² See 47 U.S.C. § 310.

²³ See 47 C.F.R. § 100.11.

²⁴ See 47 C.F.R. § 100.53(e).

²⁵ See 47 C.F.R. § 100.19.

X. SYSTEM COSTS AND FINANCIAL QUALIFICATIONS

EchoStar estimates that the cost of constructing and launching each satellite and operating it for one year will be as follows:

Construction, Launch and Insurance	\$250-300 million
Other Miscellaneous Costs	\$25-50 million
First Year Operational Costs	\$10-15 million
TOTAL Estimated Costs (per satellite)	\$285-365 million

While the Commission does not require a prior demonstration of financial fitness for DBS system applicants, EchoStar is a publicly traded company that clearly has the financial capacity to fund these costs. EchoStar's financial qualifications are a matter of public record.

XI. STATUS OF OPERATIONS

EchoStar intends to operate this DBS Expansion Band system on a non-broadcast, non-common carrier basis.

XII. 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, the parties to this application hereby waive 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.

XIII. ANTI-DRUG CERTIFICATION

The undersigned hereby certifies that pursuant to Section 1.2002 of the Commission's Rules, 47 C.F.R. § 1.2002, no party to this application is subject to a denial of

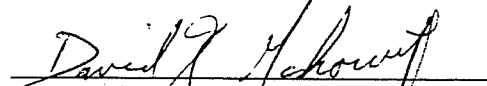
federal benefits pursuant to the authority granted in Section 5301 of the Anti Drug Abuse Act of 1988, 21 U.S.C. § 853a.

XIV. CONCLUSION

For the foregoing reasons, EchoStar respectfully requests that the Commission promptly approve this application as in the public interest, convenience and necessity.

Respectfully submitted,

EchoStar Satellite Corporation



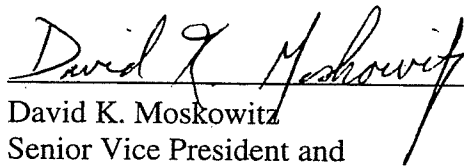
David K. Moskowitz
Senior Vice President and General Counsel
EchoStar Satellite Corporation
5701 South Santa Fe
Littleton, CO 80120
(303) 723-1000

Dated: March 28, 2002

Philip L. Malet
Pantelis Michalopoulos
Carlos M. Nalda
Todd Lantor
Steptoe & Johnson LLP
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036
(202) 429-3000

DECLARATION

I, David K. Moskowitz, hereby declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information and belief.

A handwritten signature in cursive script, reading "David K. Moskowitz", is written over a horizontal line.

David K. Moskowitz
Senior Vice President and
General Counsel

EchoStar Satellite Corporation
5701 South Santa Fe
Littleton, CO 80120
(303) 723-1000

Dated: March 28, 2002

STEPTOE & JOHNSON LLP

ATTORNEYS AT LAW

1330 Connecticut Avenue, NW
Washington, DC 20036-1795

Telephone 202.429.3000
Facsimile 202.429.3902
www.steptoel.com

Pantelis Michalopoulos
202.429.6494
pmichalo@steptoel.com

March 28, 2002

FCC/MELLON

MAR 28 2002

BY HAND DELIVERY

Magalie Roman Salas
Secretary
Federal Communications Commission
International Bureau – Satellites
P.O. Box 358210
Pittsburgh, PA 15251-5210

S2440 SAT-LOA-20020328-00050
EchoStar Satellite Corporation
EX-1

S2441 SAT-LOA-20020328-00051
EchoStar Satellite Corporation
EX-2

S2442 SAT-LOA-20020328-00052
EchoStar Satellite Corporation
EX-3

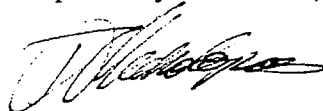
**Re: Application of Echo
Construct, Launch ;
Comprised of Three
File No. _____**

Dear Ms. Salas:

On behalf of EchoStar Satellite Corporation (“ESC”), a Direct Broadcast Satellite (“DBS”) permittee, enclosed please find for filing an original and four copies of an application for authority to construct, launch and operate a direct broadcast satellite system comprised of three satellites in the 17 GHz and 25 GHz bands. Also enclosed is a completed FCC Form 159 and a check in the amount of \$89,280.00 for the applicable “Construction Permit and Launch Authority,” “Authorization to Construct” and “License to Operate” filing fees. We are also enclosing an additional copy of this transmittal letter, which we ask you to date stamp and return with our messenger.

Please do not hesitate to contact me should you have any questions.

Respectfully submitted,



Pantelis Michalopoulos
Attorney for EchoStar Satellite Corporation

Enclosures

READ INSTRUCTIONS CAREFULLY
BEFORE PROCEEDING

FEDERAL COMMUNICATIONS COMMISSION
REMITTANCE ADVICE

Approved by OMB
3060-0589
Page No 1 of 3

(1) LOCKBOX # 358210

SPECIAL USE

FCC USE ONLY

SECTION A - PAYER INFORMATION

(2) PAYER NAME (if paying by credit card, enter name exactly as it appears on your card)

Steptoe & Johnson

(3) TOTAL AMOUNT PAID (U.S. Dollars and cents)

\$89,280.00

(4) STREET ADDRESS LINE NO. 1

Attn: Pantelis Michalopolous

(5) STREET ADDRESS LINE NO. 2

1330 Connecticut Avenue, N.W.

(6) CITY

Washington

(7) STATE

DC

(8) ZIP CODE

20036-1795

(9) DAYTIME TELEPHONE NUMBER (include area code)

202-429-6494

(10) COUNTRY CODE (if not in U.S.A.)

FCC REGISTRATION NUMBER (FRN) AND TAX IDENTIFICATION NUMBER (TIN) REQUIRED

(11) PAYER (FRN)

0003-7546-29

(12) PAYER (TIN)

521349790

IF PAYER NAME AND THE APPLICANT NAME ARE DIFFERENT, COMPLETE SECTION B
IF MORE THAN ONE APPLICANT, USE CONTINUATION SHEETS (FORM 159-C)

(13) APPLICANT NAME

EchoStar Satellite Corporation

(14) STREET ADDRESS LINE NO. 1

Attn: David K. Moskowitz

(15) STREET ADDRESS LINE NO. 2

5701 South Santa Fe

(16) CITY

Littleton

(17) STATE

CO

(18) ZIP CODE

80120

(19) DAYTIME TELEPHONE NUMBER (include area code)

303-723-1000

(20) COUNTRY CODE (if not in U.S.A.)

FCC REGISTRATION NUMBER (FRN) AND TAX IDENTIFICATION NUMBER (TIN) REQUIRED

(21) APPLICANT (FRN)

0004-2658-80

(22) APPLICANT (TIN)

841114039

COMPLETE SECTION C FOR EACH SERVICE, IF MORE BOXES ARE NEEDED, USE CONTINUATION SHEET

(23A) CALL SIGN/OTHER ID

EX-1 (USABSN-9)

(24A) PAYMENT TYPE CODE

MXD

(25A) QUANTITY

1

(26A) FEE DUE FOR (PTC)

\$26,295.00

(27A) TOTAL FEE

\$26,295.00

FCC USE ONLY

(28A) FCC CODE 1

(29A) FCC CODE 2

(23B) CALL SIGN/OTHER ID

EX-1 (USABSN-9)

(24B) PAYMENT TYPE CODE

MTD

(25B) QUANTITY

1

(26B) FEE DUE FOR (PTC)

\$2,710.00

(27B) TOTAL FEE

\$2,710.00

FCC USE ONLY

(28B) FCC CODE 1

(29B) FCC CODE 2

SECTION D - CERTIFICATION

(30) CERTIFICATION STATEMENT

I, **Carlos M. Nalda**

certify under penalty of perjury that the foregoing and supporting information is true and correct to the best of my knowledge, information and belief.

SIGNATURE

Carlos M. Nalda

DATE

3/28/02

SECTION E - CREDIT CARD PAYMENT INFORMATION

(31)

MASTERCARD/VISA ACCOUNT NUMBER:

EXPIRATION
DATE:

MASTERCARD

VISA

I hereby authorize the FCC to charge my VISA or MASTERCARD for the service(s)/authorization herein described.

SIGNATURE _____

DATE _____

SPECIAL USE
FCC USE ONLY

USE THIS SECTION ONLY FOR EACH ADDITIONAL APPLICANT
SECTION BB - ADDITIONAL APPLICANT INFORMATION

(13) APPLICANT NAME		
(14) STREET ADDRESS LINE NO. 1		
(15) STREET ADDRESS LINE NO. 2		
(16) CITY	(17) STATE	(18) ZIP CODE
(19) DAYTIME TELEPHONE NUMBER (include area code)	(20) COUNTRY CODE (if not in U.S.A.)	

FCC REGISTRATION NUMBER (FRN) AND TAX IDENTIFICATION NUMBER (TIN) REQUIRED

(21) APPLICANT (FRN)	(22) APPLICANT (TIN)
----------------------	----------------------

IF MORE BOXES ARE NEEDED, USE ADDITIONAL FCC 159-C CONTINUATION SHEETS TO LIST EACH SERVICE

SECTION CC - PAYMENT INFORMATION

(23A) CALL SIGN/OTHER ID EX-1 (USABSN-9)		(24A) PAYMENT TYPE CODE MPD	(25A) QUANTITY 1
(26A) FEE DUE FOR (PTC) \$755.00	(27A) TOTAL FEE \$755.00	FCC USE ONLY	
(28A) FCC CODE 1	(29A) FCC CODE 2		
(23B) CALL SIGN/OTHER ID EX-2 (USABSN-10)		(24B) PAYMENT TYPE CODE MXD	(25B) QUANTITY 1
(26B) FEE DUE FOR (PTC) \$26,295.00	(27B) TOTAL FEE \$26,295.00	FCC USE ONLY	
(28B) FCC CODE 1	(29B) FCC CODE 2		
(23C) CALL SIGN/OTHER ID EX-2 (USABSN-10)		(24C) PAYMENT TYPE CODE MTD	(25C) QUANTITY 1
(26C) FEE DUE FOR (PTC) \$2,710.00	(27C) TOTAL FEE \$2,710.00	FCC USE ONLY	
(28C) FCC CODE 1	(29C) FCC CODE 2		
(23D) CALL SIGN/OTHER ID EX-2 (USABSN-10)		(24D) PAYMENT TYPE CODE MPD	(25D) QUANTITY 1
(26D) FEE DUE FOR (PTC) \$755.00	(27D) TOTAL FEE \$755.00	FCC USE ONLY	
(28D) FCC CODE 1	(29D) FCC CODE 2		
(23E) CALL SIGN/OTHER ID EX-3 (USABSN-11)		(24E) PAYMENT TYPE CODE MXD	(25E) QUANTITY 1
(26E) FEE DUE FOR (PTC) \$26,295.00	(27E) TOTAL FEE \$26,295.00	FCC USE ONLY	
(28E) FCC CODE 1	(29E) FCC CODE 2		
(23F) CALL SIGN/OTHER ID EX-3 (USABSN-11)		(24F) PAYMENT TYPE CODE MTD	(25F) QUANTITY 1
(26F) FEE DUE FOR (PTC) \$2,710.00	(27F) TOTAL FEE \$2,710.00	FCC USE ONLY	
(28F) FCC CODE 1	(29F) FCC CODE 2		

REMITTANCE ADVICE (Continuation Sheet)

FEDERAL COMMUNICATIONS COMMISSION

SPECIAL USE
FCC USE ONLY

USE THIS SECTION ONLY FOR EACH ADDITIONAL APPLICANT

SECTION BB - ADDITIONAL APPLICANT INFORMATION

(13) APPLICANT NAME				
(14) STREET ADDRESS LINE NO. 1				
(15) STREET ADDRESS LINE NO. 2				
(16) CITY			(17) STATE	(18) ZIP CODE
(19) DAYTIME TELEPHONE NUMBER (include area code)		(20) COUNTRY CODE (if not in U.S.A.)		
FCC REGISTRATION NUMBER (FRN) AND TAX IDENTIFICATION NUMBER (TIN) REQUIRED				
(21) APPLICANT (FRN)		(22) APPLICANT (TIN)		

IF MORE BOXES ARE NEEDED, USE ADDITIONAL FCC 159-C CONTINUATION SHEETS TO LIST EACH SERVICE

SECTION CC - PAYMENT INFORMATION

(23A) CALL SIGN/OTHER ID EX-3 (USABSN-11)		(24A) PAYMENT TYPE CODE MPD	(25A) QUANTITY 1
(26A) FEE DUE FOR (PTC) \$755.00	(27A) TOTAL FEE \$755.00	FCC USE ONLY	
(28A) FCC CODE 1	(29A) FCC CODE 2		
(23B) CALL SIGN/OTHER ID		(24B) PAYMENT TYPE CODE	(25B) QUANTITY
(26B) FEE DUE FOR (PTC)	(27B) TOTAL FEE	FCC USE ONLY	
(28B) FCC CODE 1	(29B) FCC CODE 2		
(23C) CALL SIGN/OTHER ID		(24C) PAYMENT TYPE CODE	(25C) QUANTITY
(26C) FEE DUE FOR (PTC)	(27C) TOTAL FEE	FCC USE ONLY	
(28C) FCC CODE 1	(29C) FCC CODE 2		
(23D) CALL SIGN/OTHER ID		(24D) PAYMENT TYPE CODE	(25D) QUANTITY
(26D) FEE DUE FOR (PTC)	(27D) TOTAL FEE	FCC USE ONLY	
(28D) FCC CODE 1	(29D) FCC CODE 2		
(23E) CALL SIGN/OTHER ID		(24E) PAYMENT TYPE CODE	(25E) QUANTITY
(26E) FEE DUE FOR (PTC)	(27E) TOTAL FEE	FCC USE ONLY	
(28E) FCC CODE 1	(29E) FCC CODE 2		
(23F) CALL SIGN/OTHER ID		(24F) PAYMENT TYPE CODE	(25F) QUANTITY
(26F) FEE DUE FOR (PTC)	(27F) TOTAL FEE	FCC USE ONLY	
(28F) FCC CODE 1	(29F) FCC CODE 2		

STEPTOE & JOHNSON LLP

VENDOR #		VENDOR NAME			CHECK #	CHECK DATE
0261		FEDERAL COMMUNICATIONS COMMISSION			323538	03/27/2002
VOUCHER #	INV DATE	INVOICE #	COMMENTS	GROSS	DISCOUNT	AMOUNT PAID
380489	03/27/2002	026103272002	FILING FEE	89,280.00	0.00	89,280.00
CUSTOMER REF#				CHECK TOTALS	89,280.00	0.00
						89,280.00

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OF WASHINGTON, D.C.

STEPTOE & JOHNSON LLP
1330 CONNECTICUT AVENUE, N.W.
WASHINGTON, D.C. 20036-1795
(202) 429-3000

CHECK NUMBER: **323538** 15-122
CHECK DATE: **03/27/2002** 540
VENDOR NUMBER: **0261**

EIGHTY-NINE THOUSAND TWO HUNDRED EIGHTY AND 00/100 Dollar

\$89,280.00****

PAY TO THE ORDER OF

VOID AFTER 180 DAYS

FEDERAL COMMUNICATIONS COMMISSION

Page F. K...
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