

E060430 SES-MOD-20110822-00983 IB2011004072  
TerreStar License Inc., Debtor-in-Possession  
2,000,000 portable handset METs, CONUS, HI, PR, US \ AK  
CONUS ,

DOCKET FILE COPY ORIGINAL

Approved by OMB  
3060-0678

Date & Time Filed: Aug 22 2011 12:27:11:230PM  
File Number: SES-MOD-INTR2011-04072

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	FCC Use Only
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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:  
ATC/MET Modification Application - E060430

1-8. Legal Name of Applicant			
<b>Name:</b>	TerreStar License Inc., Debtor-in-Possession	<b>Phone Number:</b>	703-483-7800
<b>DBA Name:</b>		<b>Fax Number:</b>	
<b>Street:</b>	12010 Sunset Hills Road	<b>E-Mail:</b>	doug.brandon@terrestar.com
<b>City:</b>	Reston	<b>State:</b>	VA
<b>Country:</b>	USA	<b>Zipcode:</b>	20190 -
<b>Attention:</b>	Mr. Douglas I. Brandon		

9-16. Name of Contact Representative

<b>Name:</b>	Mr. Douglas I. Brandon	<b>Phone Number:</b>	703-483-7800
<b>Company:</b>	TerreStar License Inc., Debtor-in-Possession	<b>Fax Number:</b>	
<b>Street:</b>	12010 Sunset Hills Road	<b>E-Mail:</b>	doug.brandon@terrestar.com
<b>City:</b>	Reston	<b>State:</b>	VA
<b>Country:</b>	USA	<b>Zipcode:</b>	20190-
<b>Attention:</b>		<b>Relationship:</b>	Legal Counsel

CLASSIFICATION OF FILING

<p>17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.</p> <p><input checked="" type="radio"/> a1. Earth Station</p> <p><input type="radio"/> a2. Space Station</p>	<p>(N/A) b1. Application for License of New Station</p> <p>(N/A) b2. Application for Registration of New Domestic Receive-Only Station</p> <p><input type="radio"/> b3. Amendment to a Pending Application</p> <p><input checked="" type="radio"/> b4. Modification of License or Registration</p> <p>b5. Assignment of License or Registration</p> <p>b6. Transfer of Control of License or Registration</p> <p><input type="radio"/> b7. Notification of Minor Modification</p> <p>(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite</p> <p>(N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States</p> <p>(N/A) b10. Other (Please specify)</p> <p>(N/A) b11. Application for Earth Station to Access a Non-U.S. satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States</p> <p>(N/A) b12. Application for Database Entry</p> <p><input type="radio"/> b13. Amendment to a Pending Database Entry Application</p> <p><input type="radio"/> b14. Modification of Database Entry</p>
<p>17c. Is a fee submitted with this application?</p> <p><input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).</p> <p><input type="radio"/> Governmental Entity    <input type="radio"/> Noncommercial educational licensee</p> <p><input type="radio"/> Other (please explain):</p>	
<p>17d.</p> <p>Fee Classification CGB – Mobile Satellite Earth Stations</p>	



24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s).

- a. C-Band (4/6 GHz)     b. Ku-Band (12/14 GHz)  
 c. Other (Please specify upper and lower frequencies in MHz.)

Frequency Lower: 2000

Frequency Upper: 2200

(Please specify additional frequencies in an attachment)

#### TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.

- a. Fixed Earth Station  
 b. Temporary-Fixed Earth Station  
 c. 12/14 GHz VSAT Network  
 d. Mobile Earth Station  
 e. Geostationary Space Station  
 f. Non-Geostationary Space Station  
 g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY:

- Transmit/Receive     Transmit-Only     Receive-Only     N/A

"For Space Station applications, select N/A."

## PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)

- a -- authorization to add new emission designator and related service
- b -- authorization to change emission designator and related service
- c -- authorization to increase EIRP and EIRP density
- d -- authorization to replace antenna
- e -- authorization to add antenna
- f -- authorization to relocate fixed station
- g -- authorization to change frequency(ies)
- h -- authorization to add frequency
- i -- authorization to add Points of Communication (satellites & countries)
- j -- authorization to change Points of Communication (satellites & countries)
- k -- authorization for facilities for which environmental assessment and radiation hazard reporting is required
- l -- authorization to change orbit location
- m -- authorization to perform fleet management
- n -- authorization to extend milestones
- o -- Other (Please specify)

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.  Yes  No

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30–34.

29. Is the applicant a foreign government or the representative of any foreign government?  Yes  No

30. Is the applicant an alien or the representative of an alien?  Yes  No  N/A

31. Is the applicant a corporation organized under the laws of any foreign government?  Yes  No  N/A

32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?  Yes  No  N/A

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?  Yes  No  N/A

34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.

#### BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules?  Yes  No  
If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.

36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of circumstances.  Yes  No

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances.

Yes  No

38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances

Yes  No

39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.

Yes  No

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.

41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.

Yes  No

42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.

Yes  No

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?Canada

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Licensee requests modification of its earth station/ATC authorization to permit operations pursuant to certain requested waivers. Please see attached narrative.

Narrative

43a. Geographic Service Rule Certification

By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.

A

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.

B

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.

C

CERTIFICATION

The Applicant 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, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation
- Governmental Entity
- Other (please specify)

45. Name of Person Signing  
Douglas I. Brandon

→

46. Title of Person Signing  
General Counsel and Secretary

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT  
(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION  
(U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).



E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non-geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	<input type="radio"/> Yes <input checked="" type="radio"/> No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	<input type="radio"/> Yes <input checked="" type="radio"/> No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	<input type="radio"/> Yes <input checked="" type="radio"/> No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and/or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	<input type="radio"/> Yes <input checked="" type="radio"/> No

POINTS OF COMMUNICATION

Satellite Name: TerreStar 1   CANSAT 24   111.0 W.L. If you selected OTHER, please enter the following:	
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

POINTS OF COMMUNICATION (Destination Points)

E25. Site Identifier:	
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E26. Common Name:	E27. Country:
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ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size<meters>	E41/42. Antenna Gain Transmint and/or Recieve ( ___ dBi at ___ GHz)	
						dBi at	

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)	E36. Above Sea Level(meters)	E37. Building Height Above Ground Level (meters)	E38. Total Input Power at antenna flange (Watts)	E39. Maximum Antenna Height Above Rooftop (meters)	E40. Total EIRP for al carriers(dBW)
	/						

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization(H,V, L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

FREQUENCY COORDINATION

<b>E28. Antenna Id</b>	<b>E51. Satellite Orbit Type</b>	<b>E52/53. Frequency Limits(MHz)</b>	<b>E54/55. Range of Satellite Arc Eastern/Western Limit</b>	<b>E56. Earth Station Azimuth Angle Eastern Limit</b>	<b>E57. Antenna Elevation Angle Eastern Limit</b>	<b>E58. Earth Station Azimuth Angle Western Limit</b>	<b>E59. Antenna Elevation Angle Western Limit</b>	<b>E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)</b>
			/					

**REMOTE CONTROL POINT LOCATION**

E61. Call Sign  NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.		E66. Phone Number	
E62. Street Address			
E63. City	E68. County	E67/68. State/Country /	E64. Zip Code

**FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT**

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**THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.**

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

Application of

**TERRESTAR LICENSE INC., DEBTOR-IN-  
POSSESSION**

File No. SES-MOD- \_\_\_\_\_

Call Sign: E060430

**APPLICATION FOR MODIFICATION OF  
ANCILLARY TERRESTRIAL COMPONENT AUTHORITY**

August 22, 2011

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**ATTACHMENTS**

**ATTACHMENT 1: RESPONSE TO FCC FORM 312, QUESTION 36**

**ATTACHMENT 2: RESPONSE TO FCC FORM 312, QUESTION 40, AND SCHEDULE  
A, QUESTION A20**

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

Application of

**TERRESTAR LICENSE INC., DEBTOR-IN-  
POSSESSION**

File No. SES-MOD- \_\_\_\_\_

Call Sign: E060430

**APPLICATION FOR MODIFICATION OF  
ANCILLARY TERRESTRIAL COMPONENT AUTHORITY**

**I. INTRODUCTION AND SUMMARY**

TerreStar License Inc., Debtor-in-Possession (“TSL DIP” and collectively with its affiliates and predecessors in interest, “TerreStar”) seeks the consent of the Federal Communications Commission (“Commission” or “FCC”) for modification of its ancillary terrestrial component (“ATC”) authorization, as necessary, to waive certain rules applicable to ATC service to the extent and for the reasons requested herein.<sup>1</sup> Today, TSL DIP and various of its affiliates filed an application with the Commission to transfer certain of TerreStar’s FCC authorizations to Gamma Acquisition L.L.C. (“Gamma”), a wholly owned subsidiary of DISH Network Corporation (“DISH” and together with Gamma and the relevant TerreStar entities, the “Applicants”) (the “Transfer Application”). Among other things, the Transfer Application also requests waivers of certain requirements, including the integrated service and spare satellite

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<sup>1</sup> In a January 13, 2010 order, the Commission granted TerreStar blanket authority to operate ATC base stations and up to two million dual-mode MSS-ATC mobile earth terminals (“METs”) on a common carrier basis using its assigned MSS S-band spectrum. *See generally* TerreStar Networks Inc., *Order and Authorization*, 25 FCC Rcd. 228 (2010) (“*MSS/ATC Order*”).

rules, that TerreStar requests herein.<sup>2</sup> The Transfer Application is both parallel to, and complements, DISH's proposed acquisition of New DBSD Satellite Services G.P., Debtor-in-Possession ("DBSD").<sup>3</sup>

*First*, consistent with FCC precedent,<sup>4</sup> TerreStar requests a waiver of the integrated service requirement to allow TerreStar to offer dual-mode terminals to all customers who want them, but make single-mode terrestrial terminals available to customers who do not need or desire the satellite function. *Second*, TerreStar requests a waiver of the spare satellite requirement. *Third*, TerreStar requests that the Commission harmonize certain regulatory requirements applicable to TerreStar and DBSD by extending across the entire 2 GHz MSS allocation various waivers of the FCC's rules previously obtained by DBSD.

## **II. WAIVER REQUESTS**

### **A. Waiver Requests and Criteria**

To increase its flexibility to fully and efficiently utilize 2 GHz MSS spectrum to provide terrestrial mobile broadband while continuing to provide a robust satellite offering, TerreStar requests certain waivers of the ATC rules addressed herein.

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<sup>2</sup> TerreStar is currently in bankruptcy. Pursuant to Section 363 of the United States Bankruptcy Code, TerreStar has entered into a Purchase Agreement, whereby Gamma agreed to purchase substantially all of TerreStar's assets, including the authorization granted in the *MSS/ATC Order*.

<sup>3</sup> DBSD and DISH have entered into an investment agreement pursuant to which DISH will acquire all of the issued and outstanding equity of reorganized DBSD upon its emergence from bankruptcy. Upon consummation of the transaction, DBSD will be a wholly owned subsidiary of DISH. See Consolidated Application of ICO Global Communications (Holdings) Limited et al. and DISH Network Corporation for Authority to Transfer Control, File Nos. SAT-T/C-20110408-00071, SES-T/C-20110408-00424, SES-T/C-20110408-00425 (filed Apr. 8, 2011) ("DISH-DBSD Application").

<sup>4</sup> See LightSquared Subsidiary LLC, Request for Modification of its Authority for an Ancillary Terrestrial Component, *Order and Authorization*, 26 FCC Rcd. 566 (2011).

The Commission may waive its rules for good cause shown, particularly where strict compliance with a rule is inconsistent with the public interest when taking “into account considerations of hardship, equity, or more effective implementation of overall policy,”<sup>5</sup> especially when deviation on an individual basis does not require “evisceration of a rule by waivers.”<sup>6</sup> The Commission’s grant of these waivers will enable DISH to make commitments regarding its terrestrial mobile broadband network and service deployments. In support of these waiver requests, TerreStar points to these commitments in the Transfer Application and hereby incorporates these commitments by reference.<sup>7</sup>

The Commission should act here on the National Broadband Plan’s recommendation that “[t]he FCC should take actions that will optimize licensee flexibility sufficient to increase terrestrial broadband use of MSS spectrum, while preserving market-wide capability to provide unique mission-critical MSS services.”<sup>8</sup> Grant of these waiver requests will better serve the public interest and the goals of the Commission’s MSS/ATC policy than would strict application of the ATC rules. TerreStar emphasizes that it is asking for a waiver of the Commission’s rules in the individual circumstances of this case, in light of DISH’s plan for the entire MSS S-band, the availability of the GENUS™ phone and its future iterations, the unique features of the 2 GHz band and its existing licensees, and DISH’s commitment to MSS services. It is not asking for the application of new or different rules for MSS/ATC services.<sup>9</sup>

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<sup>5</sup> 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

<sup>6</sup> *WAIT Radio*, 418 F.2d at 1159.

<sup>7</sup> See Transfer Application at 48.

<sup>8</sup> Federal Communications Commission, *Connecting America: The National Broadband Plan*, Recommendation at 87 (2010) (“National Broadband Plan”).

<sup>9</sup> Compare *WAIT Radio*, 418 F.2d at 1153 (noting that the Commission may grant a waiver of its rules for good cause shown), with *Cities of Anaheim, Riverside, Banning, Colton and Azusa, California v. FERC*, 723 F.2d 656, 659 (9th Cir. 1984) (holding that an agency may not use an

**B. “Integrated Service” Requirement**

TerreStar requests that the Commission waive application of the ATC “integrated service” rule to permit TerreStar and DISH to provide dual-mode terminals to customers who want them, and single-mode terrestrial terminals to customers who do not want the satellite function. Allowing TerreStar and DISH to provide single-mode terrestrial terminals to customers who have no need for satellite functions will achieve significant public benefits, and will do so by better serving the important, underlying policy. TerreStar and DISH are committed to securing the opportunity to deploy a terrestrial broadband network and will provide substantial satellite service – however, relief from the integration requirement is an important component of the plan.

Because DISH now intends to acquire both TerreStar’s and DBSD’s authorizations, satellites, and facilities, DISH will be able to offer consumers choice by continuing to make available the existing dual-mode GENUS™ phone (or a successor device) to customers who want the satellite function, and also make available single-mode devices (terrestrial only) for other customers. Thus, rather than severely restricting consumers’ choice of devices, DISH plans to provide customers with greater choice in devices according to their preferences. Furthermore, TerreStar understands that DISH will take steps to ensure that customers are aware that both satellite and integrated, satellite-terrestrial service options are available to them.

Today, a mobile voice and data provider’s ability to attract customers depends in large measure on its ability to provide its customers with the types of devices that best suit their needs. In a world of lighter-and-smaller-is-better, consumers prefer lighter weight handsets with longer battery life. In addition, the requirement to make every device dual-mode severely limits a

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adjudication to circumvent the Administrative Procedure Act’s rulemaking procedures, by, for example, amending a rule).

provider's ability to enter into arrangements with multiple device and equipment manufacturers, thereby limiting consumer choice and severely impairing the business case economics.

Such a lack of choice compels consumers to shoulder the associated additional costs, while hampering the service's competitiveness by significantly limiting DISH's ability to attract customers. This does not make sense, particularly against the backdrop of increasing consolidation in the commercial mobile radio service arena, and does not further the Commission's goal of expanding the use of MSS/ATC service nationwide. To the contrary, it disserves the Commission's well-established policy in favor of efficient use of the spectrum. Waiver of the integrated service rule in these circumstances will better serve the underlying Commission policy of creating a robust MSS service than would strict adherence to it. As noted above, the flexibility sought will allow DISH to acquire the critical mass of MSS/ATC subscribers necessary to create a viable terrestrial service offering. That mass of subscribers, in turn, will allow DISH to support the integrated network upon which its MSS offering also depends, lessening the per-subscriber cost of maintaining the network. In other words, by helping to ensure the viability of DISH's MSS/ATC service through the provision of flexibility, the Commission will also help ensure a viable and substantial MSS service.

In the National Broadband Plan, the Commission rightly observed that its gating criteria had "made it difficult for MSS providers to deploy ancillary terrestrial networks."<sup>10</sup> This militates for flexible application of the integrated service requirement and favorable consideration of this waiver request, subject to the safeguards described above.

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<sup>10</sup> National Broadband Plan at 88.

### C. Spare Satellite Requirement

TerreStar also requests a waiver of the Commission's spare satellite "gating" requirement.<sup>11</sup> Under that rule, an MSS/ATC operator must have a spare satellite available on the ground within one year after commencing ATC operations and launch that satellite in the first commercially reasonable launch window following the failure of an MSS satellite.<sup>12</sup> The Commission adopted the spare satellite rule "to ensure that there would be redundancy of satellite service, while at the same time, retaining ATC operations as an 'ancillary' service in the event of launch failures or satellite malfunctions."<sup>13</sup>

A waiver of the spare satellite requirement in this case will not undermine the purpose of the rule. That purpose is to ensure that MSS operators continue investment and innovation in their satellite systems, and that they move quickly to restore service following a satellite failure.<sup>14</sup> The highest risk of such failure occurs during the first year after launch, which covers the risk areas of launch, deployment, and early life failures. The TerreStar-1 satellite has passed that risk period, meets its specifications, remains in good health, and is expected to provide uninterrupted service for the rest of its full design life of 15 years. As a result, the need to launch a replacement satellite before the satellite's end of life is already only a remote possibility. Moreover, given the significant capacity available as a result of potential interoperabilities between TerreStar's T-1 and DBSD's G-1 satellites, it is likely that any capacity shifting or

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<sup>11</sup> 47 C.F.R. § 25.149(b)(2).

<sup>12</sup> *Id.*

<sup>13</sup> Mobile Satellite Ventures Subsidiary LLC, Application for Limited Waiver of On-Ground Spare Satellite Rule, *Memorandum Opinion and Order*, 22 FCC Rcd. 20548, 20549 ¶ 4 (2007) ("*MSV Waiver Order*").

<sup>14</sup> Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands, *Report and Order and Notice of Proposed Rulemaking*, 18 FCC Rcd. 1962, 2006 ¶ 81 (2003).

redeployment that might be needed for business concerns could be accommodated with limited additional support.

As noted above, DISH plans to deploy an MSS/ATC system using the full 40 MHz of MSS spectrum with in-orbit active and spare capacity on TerreStar's T-1 satellite (currently positioned at 111° W.L.) and DBSD's G-1 satellite (currently positioned at 92.85° W.L). As a result, post-transaction, DISH will have two state-of-the-art satellites in orbit and capable of providing MSS service in the S-Band over all 50 states, Puerto Rico, and the U.S. Virgin Islands.

On the other hand, requiring DISH to complete and earmark two satellites as spares – one for each of DBSD's and TerreStar's authorizations – would be to require expenditure of over half a billion dollars and would serve no discernible policy. Worse, strict compliance with the spare satellite requirement would only serve to divert DISH's resources away from developing its hybrid MSS/ATC network. This is an unnecessary and unreasonable expense that would jeopardize the business case for entering the market in the first place. In particular, it would not increase the reliability of the MSS service to be provided and would, in fact, unnecessarily lengthen any potential service outage. Indeed, as the Commission noted in the *MSV Waiver Order*, launch of a spare satellite may take as long as 18 months,<sup>15</sup> during which time customers would have limited or no service.

This is not a case in which a nascent satellite operator is undertaking its first-ever satellite venture on a shoe-string. Managing a satellite fleet is at the core of DISH's business. DISH has a long history of building, launching, and operating satellites. DISH currently ensures continued operations of a satellite system relied upon by approximately 14 million households in a market

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<sup>15</sup> Mobile Satellite Ventures Subsidiary LLC, Application for Limited Waiver of On-Ground Spare Satellite Rule, *Memorandum Opinion and Order*, 22 FCC Rcd. 20548, 20550 ¶ 8 (2007) (“*MSV Waiver Order*”).

where interruptions of service can be fatal to customer satisfaction. DISH has consistently done so without being subject to a ground spare requirement. This request amounts to no more than allowing DISH the flexibility to do with its MSS satellites what it does on a daily basis with its DBS satellites.

The Commission waived the spare satellite rule in the *MSV Waiver Order* based on a showing that each of the two operational L-band satellites would provide sufficient backup capacity for the other.<sup>16</sup> The Commission concluded that a waiver in that case “will strike an appropriate balance between ensuring continuity of satellite service to customers and minimizing cost burdens on the satellite operator.”<sup>17</sup> A waiver in the present circumstances is equally justified, as strict compliance with the rule would not serve the public interest, and the requested waiver more effectively implements the Commission’s overall policy.

**D. Harmonization of TerreStar and DBSD Regulatory Treatment**

TerreStar also requests that the Commission harmonize the ATC service environment applicable to the 2 GHz band by granting certain waivers of the ATC base station and mobile terminal technical requirements, most of which have already been granted to DBSD and requested in similar form by TerreStar in a modification filed on June 27, 2010.<sup>18</sup> Specifically, TerreStar requests the following waivers, all but one of which (the Section 25.252(b)(2) request) were previously requested in the referenced modification request:

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<sup>16</sup> *Id.* at 20550-51 ¶¶ 8, 12.

<sup>17</sup> *Id.* 20551 ¶ 12.

<sup>18</sup> *See* TerreStar Networks Inc., File No. SES-MOD-20100727-00963 (filed July 27, 2010) (“TerreStar Modification Request”) (requesting modification of its ATC authority to harmonize waivers with DBSD).

Section	Rule	Waiver Request
25.252(a)(1)	[ATC base stations shall not] Exceed EIRP of -100.6 dBW/4 kHz for out-of-channel emissions at the edge of the MSS licensee's selected assignment.	[ATC base stations shall not] Exceed an out-of-channel emissions limit at the edge of the MSS licensee's selected assignment specified by an attenuation of the transmitter power (P), in watts, by a factor of at least $43 + 10 \log (P)$ dB. <sup>19</sup>
25.252(c)(2)	Emissions on frequencies lower than 1995 MHz and higher than 2025 MHz shall be attenuated by at least $70 + 10 \log P$ . Emissions in the bands 1995-2000 MHz and 2020-2025 MHz shall be attenuated by at least a value as determined by linear interpolation from $70 + 10 \log P$ at 1995 MHz or 2025 MHz, to $43 + 10 \log P$ dB at the nearest MSS band edge at 2000 MHz or 2020 MHz respectively.	Emissions on frequencies higher than 2020 MHz shall be attenuated by at least $43 + 10 \log (P)$ dB. Emissions in the band 1995-2000 MHz shall be attenuated by at least a value as determined by linear interpolation from $70 + 10 \log (P)$ dB at 1995 MHz, to $43 + 10 \log (P)$ dB to the MSS band edge at 2000 MHz.

<sup>19</sup> TerreStar requests relief only to the same extent as the Commission chose to grant relief to DBSD – namely, only outside 133 km from a U.S. government earth station. See Letter from Adam Krinsky, Counsel to TerreStar Networks, Inc., Debtor-in-Possession, to Marlene H. Dortch, Secretary, FCC, filed in SES-MOD-20100727-00963 (July 18, 2011).

25.252(c)(4)	Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater.	Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e., 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
25.252(a)(2)	[ATC base stations shall not] Exceed a peak EIRP of 27 dBW in 1.23 MHz.	[ATC base stations shall not] Exceed an EIRP of 32 dBW/MHz.
25.252(a)(3)	[ATC base stations shall not] Exceed an EIRP toward the physical horizon (not to include man-made structures) of 25.5 dBW in 1.23 MHz.	Waive rule. DISH's unification of the band eliminates concern over inter-party operational interference.
25.252(a)(5)	[ATC base stations shall not] Exceed an aggregate power flux density of -51.8 dBW/m <sup>2</sup> in a 1.23 MHz bandwidth at all airport runways and aircraft stand areas, including takeoff and landing paths and all ATC base station antennas shall have an overhead gain suppression according to [Rule 25.252(a)(8)].	Waive rule. DISH's unification of the band eliminates concern over inter-party operational interference.

25.252(a)(8)	[ATC base stations shall not] Use ATC base station antennas that have a gain greater than 17 dBi and must have an overhead gain suppression according to [Table 1.]	Waive rule. DISH's unification of the band eliminates concern over inter-party operational interference.
25.252(b)(2)	[ATC mobile terminals shall] Limit out-of-channel emissions at the edge of a MSS licensee's selected assignment to an EIRP density of -67 dBW/4 kHz.	[ATC mobile terminals shall] Limit out-of-channel emissions at the edge of a MSS licensee's selected assignment to a limit specified by an attenuation of the transmitter power (P), in watts, by a factor of at least $43 + 10 \log(P)$ dB.

There is good cause for granting the requested waivers here. Indeed, these waivers are identical to those requested by DBSD and subsequently approved by the Commission on January 15, 2009,<sup>20</sup> and TerreStar agrees to abide by the same limitations, restrictions, and conditions applicable to DBSD pursuant to its waiver, including that certain of these waivers are potentially subject to the Commission's adoption of service rules in the adjacent AWS bands. As a result, the Commission's rationale for granting those identical waivers applies with equal force here.

As described in TerreStar's previous modification request, the requested waivers of the base station EIRP spectral density, peak EIRP limit, EIRP toward the horizon, power flux density at runways, and overhead rules – laid out in Section 25.252(a)(1)-(3), (a)(5), and (a)(8) – create no interference concerns, largely because they were created to protect certain 2 GHz MSS operators from receiving interference from other operators.<sup>21</sup> Through this application, however, DISH now intends to unify the band by combining DBSD's and TerreStar's 2 GHz MSS

<sup>20</sup> See New ICO Satellite Service G.P., Application for Blanket Authority to Operate Ancillary Terrestrial Component Base Stations and Dual-Mode MSS-ATC Mobile Terminals in the 2 GHz MSS Bands, *Order and Authorization*, 24 FCC Rcd. 171, 185-89, 192-96 ¶¶ 41-49, 58-64, 69 (2009) (“*DBSD ATC Order*”).

<sup>21</sup> TerreStar Modification Request at 7-11. With respect to Section 25.252(a)(1), TerreStar recognizes the interests of U.S. Government agencies in protecting government earth stations from interference, and TerreStar is working with the National Telecommunications and Information Administration and related federal agencies on an operator-to-operator agreement.

holdings. This eliminates any inter-party operational interference concerns that may have otherwise arisen. As a result, the requested waivers will relieve DISH and TerreStar of these restrictions without threat of interference concerns.

As also explained in TerreStar's previous request for waiver of the mobile terminal attenuation requirements, a waiver of Section 25.252(c)(2) will not create significant risk of interference above the uplink band edge at 2020 MHz.<sup>22</sup> The Commission has already granted DBSD this relief, and given that TerreStar's spectrum is some 10 MHz further from the uplink band edge at 2020 MHz, it will be, if anything, even easier to design the network to ensure that the requested limits can be met from this portion of the S-band.

Further, the requested waiver of the emission measurement requirement found in Section 25.252(c)(4) merely asks for an alternative measurement,<sup>23</sup> which is currently used for PCS and AWS-1 terminals.<sup>24</sup> The Commission previously found that use of this alternative measurement would "have no adverse consequences" and constituted "the most appropriate way of measuring out-of-band emissions into adjacent spectrum."<sup>25</sup> Nothing has occurred since the Commission granted DBSD's waiver to alter this determination.

Finally, TerreStar adds one additional waiver request beyond those in its previous modification application: waiver of the limit on out-of-channel emissions under Section

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<sup>22</sup> TerreStar Modification Request at 12-13.

<sup>23</sup> Although the Commission has adopted an OOB limit for ATC base stations under Section 25.252(a)(1), the measurement technique to be used to measure compliance with the rule is not specifically enumerated. TerreStar intends to demonstrate conformance with the base station limit using the same emission measurement technique that the Commission has previously approved to measure compliance with the equivalent requirement for handsets in the band. *DBSD ATC Order*, 24 FCC Rcd. at 195 ¶ 64 (citing 47 C.F.R. §§ 24.238(b), 27.53(g)(1)). TerreStar requests that the Commission clarify that this measurement procedure is acceptable.

<sup>24</sup> TerreStar Modification Request at 13.

<sup>25</sup> *DBSD ATC Order*, 24 FCC Rcd. at 195 ¶ 64.

25.252(b)(2). As noted above, DISH plans to unify the band, thereby eliminating any concern over inter-party operational interference. Further, as the Commission noted in its grant of DBSD's waiver request, "attenuating transmitter power at the edge of its terminal transmission band by at least  $(43 + 10 \cdot \log(P) \text{ dB})$ [,] while limiting in-band power spectral density as required by Section 25.252(b)(1)," effectively limits the power spectral density of the band-edge "to essentially the same extent" as the previous -67 dBW/4 kHz limit.<sup>26</sup> The Commission has already granted the identical waiver to DBSD for similar reasons, and its rationale remains sound.<sup>27</sup>

Just as when the Commission granted them to DBSD, grant of these requested waivers remains in the public interest. Moreover, grant of these waivers will now produce added benefit by allowing DISH to better and more efficiently use the ATC authority granted to DBSD and TerreStar in harmony. And as stated in TerreStar's previous request, TerreStar agrees to accept the same conditions the Commission attached to the grant of these waivers to DBSD.

### **III. PROCEDURAL REQUESTS**

#### **A. Permit-But-Disclose Status**

TerreStar asks that the Commission designate the ex parte status of this proceeding as "permit but disclose" under the Commission's rules. Doing so will facilitate the development of a complete record and is consistent with Commission decisions in similar proceedings.

#### **B. Consolidation Treatment with Transfer Application**

TerreStar requests that the Commission consider this modification request jointly with the Transfer Application. Because grant of the Transfer Application and consummation of the transaction proposed therein will result in the transfer of this authorization to Gamma and will

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<sup>26</sup> *Id.* at 194 ¶ 62.



## ATTACHMENT 1

### RESPONSE TO FCC FORM 312, QUESTION 36

This attachment provides details as to any “FCC station authorization or license revoked or . . . any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission,” as requested by FCC Form 312, Question 36, for DISH Network Corporation (with its affiliates DISH Operating L.L.C. (f/k/a EchoStar Satellite Operating L.L.C.) and Gamma Acquisition L.L.C., “DISH”).

In a *Memorandum Opinion and Order* released May 16, 2002, the Satellite Division of the International Bureau cancelled two conditional construction permits held by affiliates of the applicant DISH for 22 channels at the 175° W.L. orbital location.<sup>1</sup>

By an *Order* released July 1, 2002, the International Bureau cancelled DISH’s license for a Ka-band satellite system and dismissed a related modification application filed by DISH.<sup>2</sup> On November 8, 2002, the International Bureau reinstated DISH’s license for a Ka-band system as well as the related modification application.<sup>3</sup>

In a *Memorandum Opinion and Order* released April 29, 2004, the International Bureau denied, in part, four applications filed by DISH to operate GSO FSS satellites using the Ka and/or Extended Ku-bands at the 83° W.L., 105° W.L., 113° W.L., and 121° W.L. orbital locations.<sup>4</sup> DISH’s petition for reconsideration of this decision was denied.<sup>5</sup>

In a *Memorandum Opinion and Order* released August 3, 2004, the International Bureau declared null and void the space station authorization held by VisionStar, a DISH affiliate, for use of the Ka-band at the 113° W.L. orbital location.<sup>6</sup>

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<sup>1</sup> See EchoStar Satellite Corporation, Directsat Corporation, Direct Broadcasting Satellite Corporation, Consolidated Request for Additional Time to Commence Operation, *Memorandum Opinion and Order*, DA 02-1164 (rel. May 16, 2002).

<sup>2</sup> See EchoStar Satellite Corporation, Application for Authority to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service, *Memorandum Opinion and Order*, DA 02-1534 (rel. July 1, 2002).

<sup>3</sup> See EchoStar Satellite Corporation, Application for Authority to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service, *Memorandum Opinion and Order*, DA 02-3085 (rel. Nov. 8, 2002).

<sup>4</sup> See EchoStar Satellite LLC, Applications for Authority to Construct, Launch, and Operate Geostationary Satellites in the Fixed-Satellite Service Using the Ka and/or Extended Ku Bands at the 83° W.L., 105° W.L., 113° W.L., and 121° W.L. orbital locations, *Memorandum Opinion and Order*, DA 04-1167 (rel. Apr. 29, 2004).

<sup>5</sup> See EchoStar Satellite LLC, Petition for Reconsideration, Applications for Authority to Construct, Launch, and Operate Geostationary Satellites in the Fixed-Satellite Service Using the Ka and/or Extended Ku Bands at the 83° W.L., 105° W.L., 113° W.L., and 121° W.L. orbital locations, *Memorandum Opinion and Order*, DA 06-865 (rel. Apr. 14, 2006).

<sup>6</sup> See VisionStar, Inc., Application for Modification of Authority to Construct, Launch and Operate a Ka-Band Satellite System in the Fixed Satellite Service, *Memorandum Opinion and Order*, DA 04-2449 (rel. Aug. 3, 2004).

By letter dated May 19, 2005, the Satellite Division of the International Bureau denied DISH's applications for a Fleet Management Modification and for a Special Temporary Authority to move the EchoStar 4 satellite to 61.5° W.L., pending the Commission's consideration of another DISH request to move the satellite to 77° W.L., on the grounds that the purpose of the proposed fleet management modification was not consistent with the purposes of the Commission's rules and that there were no extraordinary circumstances for the grant of temporary authority.<sup>7</sup>

In a *Memorandum Opinion and Order* released June 3, 2005, the International Bureau denied DISH's application for a Special Temporary Authority to move the EchoStar 4 satellite to 77° W.L. on the grounds that DISH had failed to establish extraordinary circumstances for the grant of such authority.<sup>8</sup> However, the International Bureau later granted partial reconsideration of this order and then granted DISH's request to move the satellite to 77° W.L. where it would operate pursuant to Mexican authority.<sup>9</sup>

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<sup>7</sup> See Letter from Thomas S. Tycz, Chief, Satellite Division, International Bureau, FCC to Pantelis Michalopoulos, Counsel to EchoStar Satellite L.L.C., DA 05-1405 (May 19, 2005).

<sup>8</sup> See EchoStar Satellite L.L.C., Application for Special Temporary Authority to Conduct Telemetry, Tracking and Command Operations During the Relocation of EchoStar 4 to the 77° W.L. Orbital Location, *Memorandum Opinion and Order*, DA 05-1581 (rel. Jun. 3, 2005).

<sup>9</sup> See EchoStar Satellite L.L.C., Application for Special Temporary Authority to Conduct Telemetry, Tracking and Command Operations During the Relocation of EchoStar 4 to the 77° W.L. Orbital Location, *Order on Reconsideration*, DA 05-2067 (rel. Jul. 25, 2005); EchoStar Satellite L.L.C., Application for Special Temporary Authority to Conduct Telemetry, Tracking and Command Operations During the Relocation of EchoStar 4 to the 77° W.L. Orbital Location, *Order and Authorization*, DA 06-868 (rel. Apr. 18, 2006).

## ATTACHMENT 2

### RESPONSE TO FCC FORM 312, QUESTION 40, AND SCHEDULE A, QUESTION A20

This attachment provides details as to the ownership and corporate structure of Gamma Acquisition L.L.C. (“Gamma”) and its parent, DISH Network Corporation (“DISH”).

#### OWNERSHIP OF DISH AND GAMMA

Gamma is a direct wholly owned subsidiary of DISH. DISH is a publicly traded Nevada corporation. The stockholders owning of record and/or voting 10 percent or more of the voting stock of DISH include:

Ownership Interest	Citizenship	Approx. Equity Interest <sup>1</sup>	Approx. Voting Interest <sup>1</sup>
Charles W. Ergen <sup>2</sup> Chairman DISH Network Corporation 9601 South Meridian Blvd. Englewood, CO 80112	USA	53.3%	90.4%
The Goldman Sachs Group, Inc. <sup>3</sup> 200 West Street New York, NY 10282	USA	10.5%	0.85%

<sup>1</sup> As of July 15, 2011.

<sup>2</sup> Includes both Class A common stock and Class B common stock ownership. Class B common stock is owned through several trusts. Mr. Ergen is deemed to own beneficially all of the Class A Shares owned by his spouse, Cantey M. Ergen. Mr. Ergen’s beneficial ownership includes: (i) 478,302 Class A Shares; (ii) 19,026 Class A Shares held in the Corporation’s 401(k) Employee Savings Plan (the “401(k) Plan”); (iii) the right to acquire 1,415,000 Class A Shares within 60 days upon the exercise of employee stock options; (iv) 235 Class A Shares held by Mr. Ergen’s spouse; (v) 1,466 Class A Shares held in the 401(k) Plan by Mrs. Ergen; (vi) 20,130 Class A Shares held as custodian for Mr. Ergen’s children; (vii) 27,000 Class A Shares held by a charitable foundation for which Mr. Ergen is an officer and (viii) 234,190,057 Class A Shares issuable upon conversion of Mr. Ergen’s Class B Shares. Mr. Ergen has sole voting and dispositive power with respect to 149,183,340 shares. Mr. Ergen’s beneficial ownership of Class A Shares excludes 4,245,151 Class A Shares issuable upon conversion of Class B Shares held by certain trusts established by Mr. Ergen for the benefit of his family.

<sup>3</sup> According to the Form 13F filed by The Goldman Sachs Group, Inc. (along with its affiliates, “Goldman”) with the SEC on August 15, 2011, Goldman held in aggregate 21,821,878 Class A Shares as of June 30, 2011 (the 13F reporting date).

## **CORPORATE OFFICERS AND DIRECTORS<sup>4</sup>**

### **DISH Network Corporation**

#### **Executive Officers:**

Joseph P. Clayton	President and Chief Executive Officer
Thomas A. Cullen	Executive Vice President, Corporate Development
Bernard L. Han	Executive Vice President and Chief Operating Officer
Robert E. Olson	Executive Vice President and Chief Financial Officer
R. Stanton Dodge	Executive Vice President, General Counsel and Secretary
W. Erik Carlson	Executive Vice President, DNS and Service Operations
James DeFranco	Executive Vice President and Special Advisor to CEO
Michael Kelly	President, Blockbuster L.L.C.
Roger Lynch	Executive Vice President, Advanced Technologies
Stephen Wood	Executive Vice President, Human Resources

#### **Board of Directors:**

Charles W. Ergen	Chairman
Joseph P. Clayton	
Carl E. Vogel	
James DeFranco	
David K. Moskowitz	
Cantey M. Ergen	
Steven R. Goodbarn	
Gary S. Howard	
Tom A. Ortolf	

### **Gamma Acquisition L.L.C.**

#### **Executive Officers:**

Charles W. Ergen	Chairman
R. Stanton Dodge	Executive Vice President and General Counsel
James DeFranco	Executive Vice President

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<sup>4</sup> The address for all officers and directors of DISH Network Corporation and DISH Operating L.L.C. is 9601 South Meridian Blvd., Englewood, CO 80112.