

Attachment to Grant
IBFS File No. SAT-LOA-20090807-00085
Call Sign: S2796
January 8, 2010

The application of DIRECTV Enterprises, LLC (DIRECTV) to operate a 17/24 GHz Broadcasting-Satellite Service (BSS) geostationary orbit (GSO) space station, DIRECTV RB-2A, Call Sign S2796, at the 102.765° W.L. orbital location, which is offset 0.235° from the 103° W.L. location specified in Appendix F to the *17/24 GHz BSS Report and Order*, FCC 07-76, 22 FCC Rcd 8842(2007), IS GRANTED.¹ Accordingly, DIRECTV is authorized to operate its 17/24 GHz BSS space station, DIRECTV RB-2A, at the 102.765° W.L. orbital location using the 17.3-17.7 GHz (space-to-Earth) and the 24.75-25.15 GHz (Earth-to-space) frequency bands, at reduced power and with reduced interference protection, in accordance with the terms, conditions and technical specifications set forth in its application, our prior grant of construction and launch authority on December 15, 2009,² this Attachment, and the Federal Communications Commission's (Commission's) rules.

1. DIRECTV may operate its DIRECTV RB-2A space station at the 102.765° W.L. orbital location, up to power flux density (PFD) levels that are reduced from those specified in Section 25.208(w) of the Commission's rules, 47 C.F.R § 25.208(w), in accordance with the following calculation methodology: For a given location on the surface of the Earth at which the required PFD reduction value needs to be determined, calculate the topocentric angular separation ' ϕ ' of the 99.0° W.L. and 103° W.L. geostationary orbital locations, and the corresponding off-axis gain $G_{CO1}(\phi)$ of the antenna specified in Section 25.224(a)(1) of the Commission's rules, 47 C.F.R § 25.224(a)(1), at that angular separation. For the same location on the surface of the Earth, also calculate the topocentric angular separation of the 99° W.L. and 102.765° W.L. geostationary orbital locations, and the gain of the antenna ' $G_{CO2}(\phi)$ ' specified in Section 25.224(a)(1) at that angular separation. Then, perform the subtraction $G_{CO2}(\phi) - G_{CO1}(\phi)$. The result is the required reduction in the PFD from the value specified in Section 25.208(w). DIRECTV RB-2A's space station transmissions shall meet the reduced PFD limits under all atmospheric conditions. The PFD levels of DIRECTV RB-2A's transmissions shall not exceed the maximum PFD levels stated in its application.
2. The Commission previously granted DIRECTV authority to construct, launch, and operate a 17/24 GHz BSS space station at an offset from this Appendix F location on July 28, 2009. DIRECTV Enterprises, LLC Application for Authorization to Launch and Operate DIRECTV RB-2, a Satellite in the 17/24 GHz Broadcasting Satellite Service at the 102.825° W.L. Orbital Location, *Order and Authorization*, 24 FCC Rcd 9393, DA 09-1624 (Int'l Bur. 2009) (granting IBFS File Nos. SAT-LOA-20060908-00100, SAT-AMD-20080114-00014, and SAT-AMD-20080321-00077, Call Sign

¹ The application was placed on Public Notice as accepted for filing on October 2, 2009. Policy Branch Information, Satellite Space Applications Accepted for Filing, *Public Notice*, Report No. SAT-00636 (rel. Oct. 2, 2009). On October 28, 2009, Spectrum Five LLC (Spectrum Five) petitioned to condition any approval of the application on the result of Spectrum Five's petition for reconsideration of the July 2009 Order authorizing DIRECTV to construct, launch, and operate a 17/24 GHz BSS space station at the 102.825° W.L. orbital location. DIRECTV Enterprises, LLC Application for Authorization to Launch and Operate DIRECTV RB-2, a Satellite in the 17/24 GHz Broadcasting Satellite Service at the 102.825° W.L. Orbital location, *Order and Authorization*, 24 FCC Rcd 9393, DA 09-1624 (Int'l Bur. 2009). Comments were filed by Ciel Satellite Limited Partnership (Ciel) on November 2, 2009 and again on November 24, 2009. DIRECTV filed reply comments on November 12, 2009. No petitions to deny were filed against IBFS File Nos. SAT-LOA-20090807-00085.

² Policy Branch Information, Actions Taken, *Public Notice*, Report No. SAT-00656, DA 09-2607 (rel. Dec. 18, 2009). The DIRECTV 12/RB-2 satellite was launched on December 29, 2009.

S2712) (*102.825° W.L. Authorization*). A petition for reconsideration has been filed relating to DA 09-1624. Accordingly, grant of IBFS File No. SAT-LOA-20090807-00085, Call Sign S2796, is without prejudice to any action relating to the pending petition for reconsideration. Further, when a 17/24 GHz BSS space station regularly authorized to provide service to the United States pursuant to the Commission's first-come, first-served processing framework commences operations at the 103° W.L. location, or its offsets, DIRECTV must terminate operations on DIRECTV RB-2A space station, Call Sign S2796, unless it has entered into a coordination agreement with the operator of the newly launched 17/24 GHz BSS space station.

3. Nothing in this authorization, nor any operations of the DIRECTV RB-2A space station, Call Sign S2796, in any way satisfies any of the milestone conditions set forth in paragraph 37 of the *102.825° W.L. Authorization* for the DIRECTV RB-2 space station, Call Sign S2712.
4. DIRECTV's request for waiver of Section 25.225 of the Commission's rules, 47 C.F.R. § 25.225, IS GRANTED as conditioned herein. Section 25.225 provides that each operator of a 17/24 GHz BSS space station that is used to provide video programming directly to consumers in the 48 contiguous United States (CONUS) must provide comparable service to Alaska and Hawaii, unless such service is not technically feasible or not economically reasonable from the authorized orbital location. The DIRECTV RB-2A space station is on the same satellite as DIRECTV-12 Ka-band space station. Although the 17/24 GHz BSS space station will provide commercial service, its capacity is limited to four spot beams (with one that covers Alaska, but not one that covers Hawaii). This space station represents an interim step by DIRECTV between its prior 17/24 GHz BSS experimental space station authorization and its existing authorization for more robust 17/24 GHz BSS space stations at this and other locations. DIRECTV has not sought waiver of Section 25.225 with respect to its previously granted 17/24 GHz BSS locations. By hosting this payload on the DIRECTV 12/RB-2A satellite, DIRECTV has an opportunity to address some of the unique technical and policy issues presented by this new service. We anticipate that DIRECTV's design of its other 17/24 GHz BSS space stations will benefit from its early use and development of this frequency band. Thus, we will waive this rule to permit short-term operation of DIRECTV RB-2A until the 17/24 GHz BSS space station regularly assigned to this location is launched and brought into operation. This waiver is limited to this space station at this orbital location. This waiver has no impact on DIRECTV's geographic service requirements under its *102.825° W.L. Authorization*.
5. DIRECTV shall prepare all 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 procedures for this space station, in accordance with the ITU Radio Regulations. DIRECTV 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).³

³ In its comments, Ciel requested that the Commission include the standard licensing condition drawn from Section 25.111(b) of the Commission's rules. 47 C.F.R. § 25.111(b). We do so here. Inclusion of this condition, however, does not address the issues discussed by both DIRECTV and Ciel concerning the processing of requests for access to the market in the United States by non-U.S.-licensed space station operators. It is not necessary to reach those issues in processing this application.

6. This authorization and all conditions contained herein are subject to the outcome of the Commission's rulemaking in IB Docket No. 06-123 and any requirements subsequently adopted therein.
7. The license term for this 17/24 GHz BSS space station, Call Sign S2796, is 15 years, and will begin to run on the date that DIRECTV 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). DIRECTV shall file this certification with the Chief, Satellite Division, International Bureau, within 10 business days of the space station being put into operation.
8. On June 30 of each year, DIRECTV 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).
9. DIRECTV 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.
10. 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.



*subject to conditions

File # SAT-LOA-20090807-00085

Call Sign S2796 Grant Date 01/08/10
(or other identifier)

Term Dates See attached conditions
From _____ To: _____

Approved: Stephen J. Duall
Stephen J. Duall
Chief, Satellite Policy Branch

9-16. Name of Contact Representative

Name:	William M. Wiltshire	Phone Number:	202-730-1350
Company:	Wiltshire & Grannis LLP	Fax Number:	202-730-1301
Street:	1200 18th Street, NW	E-Mail:	wwiltshire@wiltshireregannis.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036
Attention:	William M. Wiltshire	Relationship:	Legal Counsel

CLASSIFICATION OF FILING

17. Choose the buttonnext to the classification that applies to thisfiling for both questions a. and b. Choose only one for 17a and only one for 17b.

<p>a.</p> <p><input type="radio"/> a1. Earth Station (N/A)</p> <p><input checked="" type="radio"/> a2. Space Station</p>	<p>b.</p> <p><input checked="" type="radio"/> b1. Application for License of New Station (N/A)</p> <p><input type="radio"/> b2. Application for Registration of New Domestic Receive-Only Station (N/A)</p> <p><input type="radio"/> b3. Amendment to a Pending Application (N/A)</p> <p><input type="radio"/> b4. Modification of License or Registration (N/A)</p> <p><input type="radio"/> b5. Assignment of License or Registration (N/A)</p> <p><input type="radio"/> b6. Transfer of Control of License or Registration (N/A)</p> <p><input type="radio"/> b7. Notification of Minor Modification (N/A)</p> <p><input type="radio"/> b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite</p> <p><input type="radio"/> b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States</p> <p><input type="radio"/> b10. Replacement Satellite Application – no new frequency bands</p> <p><input type="radio"/> b11. Replacement Satellite Application – new frequency bands (Not eligible for streamlined processing)</p> <p><input type="radio"/> b12. Petition for Declaratory Ruling to be Added to the Permitted List</p> <p><input type="radio"/> b13. Other (Please specify) (N/A)</p>
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<p>17c. Is a fee submitted with this application?</p> <p><input checked="" type="radio"/> If Yes, complete and attach FCC Form 159.</p> <p>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>17c. Fee Classification BNY – Space Station (Geostationary)</p>	
<p>18. If this filing is in reference to an existing station, enter:</p> <p>(a) Call sign of station: Not Applicable</p>	
<p>19. If this filing is an amendment to a pending application enter:</p> <p>(a) Date pending application was filed: Not Applicable</p> <p>(b) File number of pending application: Not Applicable</p>	

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:

- a. Fixed Satellite
- b. Mobile Satellite
- c. Radiodetermination Satellite
- d. Earth Exploration Satellite
- e. Direct to Home Fixed Satellite
- f. Digital Audio Radio Service
- g. Other (please specify) Broadcast Satellite Service

21. STATUS: Choose the button next to the applicable status. Choose only one.

- Common Carrier
- Non-Common Carrier

22. If earth station applicant, check all that apply.
Not Applicable

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:

- Connected to a Public Switched Network
- Not connected to a Public Switched Network
- N/A

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: 17300 Frequency Upper: 25150 (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.

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

26. TYPE OF EARTH STATION FACILITY: Not Applicable

PURPOSE OF MODIFICATION

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

Not Applicable

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.

<p>29. Is the applicant a foreign government or the representative of any foreign government?</p> <p style="text-align: right;"> <input type="radio"/> Yes <input checked="" type="radio"/> No </p>
<p>30. Is the applicant an alien or the representative of an alien?</p> <p style="text-align: right;"> <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A </p>
<p>31. Is the applicant a corporation organized under the laws of any foreign government?</p> <p style="text-align: right;"> <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A </p>
<p>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?</p> <p style="text-align: right;"> <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A </p>
<p>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?</p> <p style="text-align: right;"> <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A </p>
<p>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.</p> <p style="text-align: right;">Exhibit A</p>

BASIC QUALIFICATIONS

<p>35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.</p> <p style="text-align: right;"> <input type="radio"/> Yes <input checked="" type="radio"/> No Exhibit B </p>
<p>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.</p> <p style="text-align: right;"> <input type="radio"/> Yes <input checked="" type="radio"/> No </p>
<p>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.</p> <p style="text-align: right;"> <input type="radio"/> Yes <input checked="" type="radio"/> No </p>
<p>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</p> <p style="text-align: right;"> <input type="radio"/> Yes <input checked="" type="radio"/> No </p>
<p>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.</p> <p style="text-align: right;"> <input type="radio"/> Yes <input checked="" type="radio"/> No </p>

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?

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.)

DIRECTV Enterprises, LLC seeks authority to launch and operate DIRECTV RB-2A, the 17/24 GHz BSS portion of a new hybrid satellite to be located at the 102.765 WL orbital position.

Exhibit C

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) Limited Liability Company

45. Name of Person Signing
James Butterworth

46. Title of Person Signing
Senior VP

47. Please supply any need attachments.

1:

2:

3:

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).

Completed Schedule S

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