# DIRECTIO 107° W.L.

**IBFS Nos** 

Date & Time Filed: Jan 14 2008 4:36:21:300PM File Number: SAT-AMD-20080114-00015 SAT-AMD-20051118-00226 SAT-AMD-20080114-00015 SAT-AMD-20080321-00078 Call sign: S2242 SAT-LOA-19970605-00049

> Approved by OMB 3060-0678

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

### APPLICANT INFORMATION

AMD - S2242 (RB-3 at 107WL) – conform to service rules Enter a description of this application to identify it on the main menu:

1-8. Legal Name of Applicant

Name: **DIRECTV Enterprises, LLC Phone Number:** 310-535-5323 310-726-4993

Fax Number:

Name:

Street:

DBA

2230 E. Imperial Hwy E-Mail: dapattillo@directv.com

Country: USAEl Segundo State: Zipcode: 90245 CA

Attention: Dave Pattillo

City:



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Chied, Satellite Division

#### Attachment to Grant IBFS File Nos. SAT-LOA-19970605-00049, SAT-AMD-20051118-00226, SAT-AMD-20080114-00015, and SAT-AMD-20080321-00078

Call Sign: S2242 July 28 2009

DIRECTV Enterprises, LLC's (DIRECTV's) request for authority to construct, launch, and operate a 17/24 GHz Broadcasting-Satellite Service (BSS) space station, DIRECTV RB-3, at the 107° 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. Accordingly, DIRECTV is authorized to operate its 17/24 GHz BSS space station, DIRECTV RB-3, at the 107° 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, in accordance with the terms and conditions contained in its application, the Federal Communication Commission's (Commission's) rules and the conditions of this attachment.

- 1. DIRECTV is authorized to operate its 17/24 GHz BSS space station at the 107° W.L. orbital location up to the maximum power flux density limits defined in Section 25.208(w) of the Commission's rules, 47 C.F.R. § 25.208(w), subject to the actual technical parameters in its application.
- 2. DIRECTV shall maintain its 17/24 GHz BSS space station within an east/west longitudinal station-keeping tolerance of  $\pm 0.05$  degrees of the assigned  $107^{\circ}$  W.L. orbital location.
- 3. DIRECTV, 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. Division of Spectrum at the 107° W.L. Orbital Location. Grant of this application is subject to the provisions regarding division of spectrum contained in Section 25.158(d) of the Commission's rules. Accordingly, in the event that applications relating to call sign(s): S2442 and/or S2699 at the 107° W.L. orbital location are also granted, the available bandwidth at the orbital location will be divided among the licensees at this location. The following procedures apply to the selection of spectrum by DIRECTV:
  - a. *Ensuring Contiguous Bandwidth Selections*. Section 25.158(d)(6) requires that the each licensee's bandwidth selection shall not preclude other licensees from selecting contiguous bandwidth. To implement this requirement in the selection of bandwidth at this location, operations for telemetry, tracking, and telecommand (TT&C), service-link, and feeder-link band will be as follows:
    - i. *Downlink Transmissions*. Telemetry and beacon transmissions in the space-to-Earth direction may be conducted in an 11-megahertz band segment at 17.300-

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); Policy Branch Information, Satellite Space Applications Accepted for Filing, *Public Notice*, Report No. SAT-00537 (rel. July 11, 2008) (corrections). Comments were filed by Ciel Satellite Limited Partnership (Ciel), 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, including its own 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 relate to a request to assign this application to Pegasus from DIRECTV Enterprises, LLC (DIRECTV). IBFS File No. SAT-AMD-20080916-00188. We address that request in a separate Order, and not in this grant.

- 17.311 GHz, and/or a 11-megahertz band segment at 17.689-17.700 GHz. The remaining portions of the 17.3-17.7 GHz band may be used for service links in the space-to-Earth direction.
- ii. *Uplink Transmissions*. Telecommand transmissions in the Earth-to-space direction may be conducted in an 11-megahertz band segment at 24.750-24.761 GHz, and an 11-megahertz band segment at 25.139-25.150 GHz. On our own motion, we grant a limited waiver of § 25.202(g) of the Commission's rules, 47 C.F.R. § 25.202(g), to permit TT&C operations in the 25.139-25.150 GHz band segment. 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)." The allocated uplink band for this service is the 24.75-25.25 GHz band. The 25.139-25.150 GHz uplink band segment is a necessary counterpart to the 17.689-17.700 GHz downlink band segment. We grant this limited waiver to allow productive use of the 25.139-25.150 GHz uplink band segment that would otherwise be unused. This waiver only applies to use of the 25.139-25.150 GHz uplink band segment at the 107° W.L. orbital location. The remaining portions of the 24.75-25.15 GHz band may be used by DIRECTV for feeder links in the Earth-to-space direction.
- b. Selection Process. DIRECTV will be allowed to select the particular band segments it wishes to use (its "Selected Assignments") no earlier than 60 days before it plans to launch its satellite, and no later than 30 days before that date, by submitting a letter to the Secretary of the Commission. DIRECTV shall serve copies of this letter to the other 17/24 GHz BSS Licensees at the 107° W.L. orbital location, pursuant to Section 1.47 of the Commission's rules.
  - Selection of Downlink TT&C. DIRECTV may make up to two telemetry and/or beacon downlink frequency channel selections in the 17.3-17.7 GHz TT&C band segments with a bandwidth of one megahertz each: one in the 17.300-17.311 GHz TT&C band segment, and one in the 17.689-17.700 GHz TT&C band segment.
  - ii. Selection of Uplink TT&C. In the 24.75-25.15 GHz TT&C band segments, DIRECTV may make up to two telecommand uplink frequency channel assignment selections with a bandwidth of one megahertz each: one in the 24.750-24.761 GHz TT&C band segment, and one in the 25.139-25.150 GHz TT&C band segment.
  - iii. Selection of Spectrum within the 17.3-17.7 GHz band for Service-Link Operations and within the 24.75-25.15 GHz band for Feeder-Link Operations. In the 17.3-17.7 GHz band segment, the Selected Assignment shall give DIRECTV access to 1/m of the quantity of spectrum in the band segment, for transmission on a primary basis, where "m" is the number of 17/24 GHz BSS Licensees authorized to provide service in the band segment at the 107° W.L. orbital location at the time the Selected Assignment is chosen. In the 17.3-17.7 GHz band segment, the Selected Assignment shall be chosen such that the lower band edge of the assignment is an integer multiple of 378/m megahertz from the band edge of the lower TT&C band segment, at 17.311 GHz, and the upper band edge of the assignment is 378/m megahertz above the lower band edge of the assignment. The edges of the corresponding feeder-link Selected Assignment

shall be 7450 MHz above the lower and upper band edges of the service-link Selected Assignment.

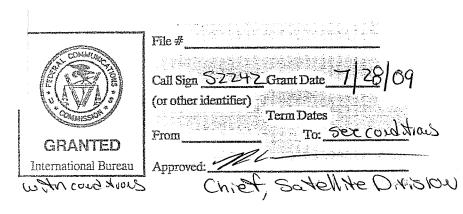
- c. Operations Within and Outside of the Selected Assignments. DIRECTV shall operate on a primary basis relative to the other 17/24 GHz BSS Licensees within its Selected Assignments. DIRECTV may also operate in other portions of the 17.3-17.7 GHz and 24.75-25.15 GHz frequency bands outside its own Selected Assignments on a secondary basis with respect to operations of the other 17/24 GHz BSS Licensees in their respective Selected Assignments. Each 17/24 GHz BSS Licensee at the 107° W.L. orbital location that launches a satellite to that location shall serve a Notice of Successful Launch, by letter to the Chief, Satellite Division, International Bureau, Federal Communications Commission. Copies of the letter shall be served on all other 17/24 GHz BSS Licensees at the 107° W.L. orbital location, pursuant to Section 1.47 of the Commission's rules. Within one week of receiving written notice of a successful launch, any 17/24 GHz BSS Licensee operating at the 107° W.L. orbital location within the Selected Assignments of the newly launched satellite will be required to cease operations on such selected assignments.
- 5. DIRECTV's authorization for a 17/24 GHz BSS space station at the 107° W.L. orbital location will be null and void with no further action on the Commission's part if the space station is not constructed, launched, and placed into operation in accordance with the technical parameters, 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 (July 22 2010);
  - b. Complete the Critical Design Review within two years (July 28, 2011);
  - c. Commence construction within three years (July 28 2012);
  - d. Launch and begin operations within five years (July 282014); and
  - e. DIRECTV must file a bond with the Commission in the amount of \$3 million, pursuant to the procedures set forth in 47 C.F.R. § 25.165, within 30 days of the date of this grant (August **27**, 2009).
- 6. DIRECTV must 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. DIRECTV 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.
- 7. DIRECTV 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 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 governing end-of-life disposal of geostationary satellite orbit space stations.
- 8. 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.

- 9. 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).<sup>2</sup>
- 10. The license term for this 17/24 GHz BSS space station, Call Sign S2242, 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 ten business days of the space station being put into operation.
- 11. 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).
- 12. 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.
- 13. 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.

Call sign: S2242 SAT-LOA-19970605-00049 SAT-AMD-20051118-00226 SAT-AMD-20080114-00015

SAT-AMD-20080321-00078

IBFS Nos.



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

9-16. Name of Contact Representative

Name: William M. Wiltshire

Phone Number:

202-730-1350

Company: Harris, Wiltshire & Grannis LLP

1200 18th Street, NW

Street:

Fax Number:

E-Mail:

wwiltshire@harriswiltshire.com

202-730-1301

City:

Washington

Country: USA

Attention: William M. Wiltshire

State:

Zipcode:

Relationship:

20036-

Legal Counsel

DC

### CLASSIFICATION OF FILING

classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b. 17. Choose the button next to the

- o al. Earth Station
- a2. Space Station

- (N/A) b1. Application for License of New Station
- (N/A) b2. Application for Registration of New Domestic Receive-Only Station
- b3. Amendment to a Pending Application
- 6 b4. Modification of License or Registration
- b5. Assignment of License or Registration
- b6. Transfer of Control of License or Registration
- b7. Notification of Minor Modification
- Satellite (N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed
- (N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United
- (N/A) b10. Other (Please specify)
- to Provide the Proposed Service in the Proposed Frequencies in the United States (N/A) b11. Application for Earth Station to Access a Non-U.S.satellite Not Currently Authorized
- (N/A) b12. Application for Database Entry
- 6 b13. Amendment to a Pending Database Entry Application
- b14. Modification of Database Entry

(a) Call sign of station: (a) S2242 06	18. If this filing is in reference to an more resisting station, enter:	7d. Fee Classification CWY – Space Station Amendment(Geostationary)	<ul> <li>17c. Is a fee submitted with this application?</li> <li>If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).</li> <li>Governmental Entity One Noncommercial educational licensee</li> <li>Other(please explain):</li> </ul>
(a) Date pending application was filed: 06/05/1997	19. If this filing is an amendment to a pending application enter both fields, if this filing is a modification please enter only the file number:	ndment(Geostationary)	. If No, indicate reason for fee exemption (sul educational licensee
(b) File number: SATLOA1997060500049	pplication enter both fields, if this filing is a		ee 47 C.F.R.Section 1.1114).

#### TYPE OF SERVICE

1 MHz.) per: 25150	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)	<ul> <li>23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:</li> <li>Connected to a Public Switched Network</li> <li>Not connected to a Public Switched Network</li> <li>Not connected to a Public Switched Network</li> <li>Not connected to a Public Switched Network</li> </ul>	21. STATUS: Choose the button next to the applicable status. Choose only one.  Common Carrier  Non-Common Carrier  Using Non-U.S. licensed some only one.	<ul> <li>□ a. Fixed Satellite</li> <li>□ b. Mobile Satellite</li> <li>□ c. Radiodetermination Satellite</li> <li>□ d. Earth Exploration Satellite</li> <li>□ e. Direct to Home Fixed Satellite</li> <li>□ f. Digital Audio Radio Service</li> <li>□ g. Other (please specify)</li> <li>17/24 GHz Broadcasting Satellite Service</li> </ul>	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:
(Please specify additional frequencies in an attachment)	icable frequency band(s).	ice, see instructions regarding Sec. 214 filings. Choose one. Are these lic Switched Network   N/A	22. If earth station applicant, check all that apply.  Using U.S. licensed satellites  Using Non-U.S. licensed satellites	e Service	use the following type(s) of service(s): Select all that apply:

		"For Space Station applications, select N/A."
● N/A	O Receive-Only O N/A	26. TYPE OF EARTH STATION FACILITY:  O Transmit/Receive O Transmit-Only
		• g. Omer (please specify)
		o f. Non-Geostationary Space Station
		e. Geostationary Space Station
		O d. Mobile Earth Station
		O c. 12/14 GHz VSAT Network
		O b. Temporary—Fixed Earth Station
		o a. Fixed Earth Station
tion that applies. Choose only one.	next to the class of stat	25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.
		TYPE OF STATION

## PURPOSE OF MODIFICATION

I ONI ON	FURFUSE OF MUDIFICATION
27. The p	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
ال	b — authorization to change emission designator and related service
	c authorization to increase EIRP and EIRP density
ادّ	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
<u></u>	i — authorization to add Points of Communication (satellites & Double
<u></u>	j — authorization to change Points of Communication (satellites & amp; countries)
	k — authorization for facilities for which environmental assessment and
radiation	radiation hazard reporting is required
	1 — authorization to change orbit location
_ _	m — authorization to perform fleet management
ū	n — authorization to extend milestones
X	o — Other (Please specify)

### ENVIRONMENTAL POLICY

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?	31. Is the applicant a corporation organized under the laws of any foreign government?	30. Is the applicant an alien or the representative of an alien?	29. Is the applicant a foreign government or the representative of any foreign government?	ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronatical fixed radio station services are not required to respond to Items 30–34.	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.
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	O Yes	O Yes (	O Yes (	autical en r	O Yes
	O Yes O 1	O Yes O I	O Yes ⊗ l	autical en route	O Yes ⊗ N
	O Yes O No (	O Yes O No (	• Yes • No	ier, aeronautical en route or	• Yes • No
by O Yes O No ⊗ N/A ized	O Yes O No 📵 N/A	O Yes O No 🔘 N/A	• Yes • No	autical en route or	• Yes • No

#### BASIC QUALIFICATIONS

		1 attached as Exhibit B.	See narrative application attached
ear in this	on does not app	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.)	43. Description. (Summarize the nature of the application and box, please go to the end of the form to view it in its entirety.)
tion has	hat administrat	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?	42b. What administration has licensed or is in the process of licen coordinated or is in the process of coordinating the space station?
<b>⊚</b> No	• Yes	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.	42a. Does the applicant intend to use a no answer 42b and attach an exhibit providir proceed to question 43.
O No	Yes	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.	41. By checking Yes, the undersigned cersubject to a denial of Federal benefits that 1988, 21 U.S.C. Section 862, because of 47 CFR 1.2002(b) for the meaning of &q

Exhibit B

43a. Geographic Service Rule Certification

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

**⊚** B

compromises in satellite design and operation as to make it economically unreasonable. A narrative description 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 and technical analysis demonstrating this claim are attached. feasible as a technical matter to do so, or that, while technically feasible, such services would require so many

**O** 

#### CERTIFICATION

application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit true, complete and correct to the best of his or her knowledge and belief, and are made in good faith. 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. United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the

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).	45. Name of Person Signing  Romulo Pontual  46. Title of Person Signing  Executive Vice President	Other (please specify)	O Partnership O Corporation O Governmental Entity	O Individual O Unincorporated Association	4. Applicant is a (an): (Choose the button next to applicable response.)

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