

S2797 SAT-STA-20091201-00132
DIRECTV Enterprises, LLC

IB2009007810

Date & Time Filed: Dec 1 2009 3:26:23:090PM
File Number: SAT-STA-20091201-00132
Callsign:



*subject to conditions

File # SAT-STA-20091201-00132
Call Sign S2797 Grant Date 02/02/10
(or other identifier) see attached Term Dates period of 30 days
From conditions To: Stephen J. Duall
Approved: Stephen J. Duall

Approved by OMB
3060-0678

Stephen J. Duall
Chief, Satellite Policy Branch

FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SPACE STATION SPECIAL TEMPORARY AUTHORITY

FOR OFFICIAL USE ONLY

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
Request for STA for In-Orbit Testing of DIRECTV 12 at 76 W.L.

I. Applicant

Name:	DIRECTV Enterprises, LLC	Phone Number:	301-663-0053
DBA Name:		Fax Number:	240-358-0569
Street:	2230 E. Imperial Hwy CA/LAI/N340	E-Mail:	jwengryniuk@directv.com
City:	El Segundo	State:	CA
Country:	USA	Zipcode:	90245
Attention:	Jack Wengryniuk		-

ATTACHMENT
Conditions of Authorization
IBFS File No. SAT-STA-20091201-00132
Call Sign S2797
Grant Date: February 2, 2010

The request of DIRECTV Enterprises, LLC (DIRECTV) for special temporary authority (STA), IBFS File No. SAT-STA-20091201-00132, IS GRANTED. Accordingly, for a period of 30 days commencing on the date that the DIRECTV 12 space station (Call Sign S2797) arrives at the 76° W.L. orbital location, DIRECTV is authorized to conduct in-orbit testing using the 18.3-18.8 GHz and 19.7-20.2 GHz (space-to-Earth) frequency bands and the 28.35-28.6 GHz, 29.25-29.5 GHz, and 29.5-30.0 GHz (Earth-to-space) frequency bands. During the period of this STA, DIRECTV is authorized to conduct telemetry, tracking, and telecommand (TT&C) operations on the 29255.00 MHz and 29497.00 MHz command uplinks and the 18302.25 MHz and 18302.75 MHz telemetry and beacon downlinks. This authorization is granted in accordance with the terms, conditions, and technical specifications set forth in DIRECTV's application and supplement, the conditions set forth in this Attachment, and the Commission's rules.

1. All operations shall be on an unprotected and non-harmful interference basis, *i.e.*, DIRECTV shall not cause harmful interference to, and shall not claim protection from interference caused to it, by any other lawfully operating radiocommunication system.

2. In the event of any harmful interference as a result of the operations of the DIRECTV 12 space station during in-orbit testing at the 76° W.L. orbital location, DIRECTV shall cease operations immediately upon notification of such interference and shall immediately inform the Commission, in writing, of such an event.

3. DIRECTV shall notify the Chief of the Satellite Division, International Bureau, Federal Communications Commission, in writing, on the date that the DIRECTV 12/RB-2A satellite arrives at the 76° W.L. orbital location. This letter shall indicate the date and time that DIRECTV intends to commence in-orbit-testing of the DIRECTV 12 space station (Call Sign S2797). Courtesy copies of this filing shall be sent via email to Chip.Fleming@fcc.gov and Mark.Young@fcc.gov.

4. DIRECTV shall notify Scott Kotler (202-482-7983, skotler@ntia.doc.gov) when it initiates and terminates in-orbit testing at the 76° W.L. orbital location.

5. During in-orbit testing, DIRECTV shall maintain the DIRECTV 12/RB-2A satellite within an east/west longitudinal station-keeping tolerance of ± 0.05 degrees of the 76° W.L. orbital location.

6. Operations of the DIRECTV 12 space station at the 76° W.L. orbital location are limited to in-orbit testing and shall not include any provision of commercial services.

7. DIRECTV must coordinate all of its Ka-band downlink operations within the 18.3-18.8 GHz and 19.7-20.2 GHz frequency bands with U.S. Government systems, including Government operations to earth stations in foreign countries, in accordance with footnote US334 to the United States Table of Frequency Allocations (Table of Allocations), 47 C.F.R. § 2.106. Absent a coordination agreement pursuant to footnote US334 to the Table of Allocations, DIRECTV shall operate its Ka-band downlinks on a non-harmful interference basis with regards to operating U.S. Government systems within the 18.3-18.8 GHz and 19.7-20.2 GHz bands, and DIRECTV shall terminate immediately its Ka-band downlink operations in the event that such operations cause harmful interference into operating U.S. Government systems, and DIRECTV must accept interference from U.S. Government systems.


8. DIRECTV IS GRANTED, with conditions, a waiver of Section 25.208(c) of the Commission's rules, 47 C.F.R. § 25.208(c). This section states that the power flux density at the Earth's surface produced by emissions from a space station for all conditions for all methods of modulation shall not exceed certain angle-of-arrival power flux density limits that are listed in its subsections. The underlying purpose of Section 25.208(c) is to protect other radiocommunication systems operating in the 17.7-17.8 GHz, 18.3-18.8 GHz, 19.3-19.7 GHz, 22.55-23.00 GHz, 23.00-23.55 GHz, and 24.45-24.75 GHz frequency bands. DIRECTV 12 states that it will exceed the Section 25.208(c) pfd limits for short periods of time in the 18.58-18.8 GHz frequency band, which is shared with other co-primary Fixed-Satellite Service (FSS), Earth Exploration Satellite Service (EESS), and Space Research Service (SRS) satellite radiocommunication systems. There are no Commission-licensed EESS or SRS systems in this band. DIRECTV states that there are no co-frequency satellites up to 9° away from the 76° W.L. orbital location at which DIRECTV will conduct in-orbit testing of DIRECTV 12, thus, the potential for interference to other satellite radiocommunication systems from in-orbit testing of DIRECTV 12 is very low. There are also a very small number of co-primary Fixed Service (FS) radiocommunication systems operating in the 18.58-18.8 GHz frequency band within the geographic area toward which DIRECTV will aim its downlink signal during in-orbit transponder gain transfer testing. DIRECTV has presented an interference analysis in the supplement to its application with respect to these FS systems that shows the potential for harmful interference to these systems is very low as well. Thus, granting a waiver of Section 25.208(c) in this instance will not undermine the purpose of the rule, and serves the public interest by allowing DIRECTV to gather test data on its DIRECTV 12 space station. As a condition of granting this waiver, DIRECTV must conduct its operations pursuant to this STA in a manner consistent with the power flux density requirements of footnote US255 to the Table of Allocations, 47 C.F.R. § 2.106.

9. DIRECTV's operations in the 18.3-18.8 GHz band (space-to-Earth) are not entitled to protection from co-primary terrestrial services until the period during which terrestrial Fixed Service stations remain co-primary has expired. 47 C.F.R. § 25.145(g).

10. Any action taken or expense incurred as a result of operations pursuant to this STA is at DIRECTV's own risk.

11. DIRECTV is afforded 30 days from the date of release of this authorization to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.

12. 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.

 <p>GRANTED *</p> <p>International Bureau</p> <p>*subject to conditions</p>	File # <u>SAT- STA- 20091201- 00132</u>
	Call Sign <u>S2797</u> Grant Date <u>02/02/10</u>
	(or other identifier)
	From <u>see attached conditions</u> Term Dates <u>period of 30 days</u>
	To: <u>30 days</u>
	Approved: <u>Stephen J. Duall</u> Stephen J. Duall Chief, Satellite Policy Branch

2. Contact			
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@wiltshiregrannis.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036 -
Attention:	William M. Wiltshire	Relationship:	Legal Counsel
(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)			
3. Reference File Number or Submission ID			
4a. Is a fee submitted with this application?			
<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).			
<input type="radio"/> Governmental Entity Noncommercial educational licensee			
Other (please explain):			
4b. Fee Classification CRY - Space Station (Geostationary)			
5. Type Request			
<input checked="" type="radio"/> Change Station Location		<input type="radio"/> Extend Expiration Date	
		Other	
6. Temporary Orbit Location		7. Requested Extended Expiration Date	
76 W.L.			

<p>8. Description (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)</p> <div style="border: 1px solid black; padding: 5px;"> <p>DIRECTV Enterprises, LLC requests Special Temporary Authority to locate the DIRECTV 12 satellite at the 76 degree W.L. orbital location to conduct in-orbit testing for up to 30 days.</p> </div>			
<p>9. 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 1.202(b) for the meaning of "party to the application"; for these purposes.</p>	<p>Yes <input type="radio"/></p>	<p>No <input checked="" type="radio"/></p>	
<p>10. Name of Person Signing James Butterworth</p>	<p>11. Title of Person Signing Senior Vice President</p>		
<p>12. Please supply any need attachments.</p>	<p>Attachment 1: STA Request</p>	<p>Attachment 2:</p>	<p>Attachment 3:</p>
<p style="text-align: center;">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).</p>			

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PERM, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

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.

December 1, 2009

Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Re: ***Request for Special Temporary Authority for In-Orbit Testing of
DIRECTV 12 at 76° W.L.***

Dear Ms. Dortch:

DIRECTV Enterprises, LLC (“DIRECTV”) hereby requests Special Temporary Authority (“STA”) to locate the DIRECTV 12 satellite (call sign S2797) at the 76° W.L. orbital location for in-orbit testing (“IOT”) after launch of the satellite, which is currently scheduled for late December 2009. This STA will cover a period of approximately 30 days within a 60 day window, which DIRECTV requests be keyed to become effective upon the satellite’s arrival at 76° W.L.

DIRECTV 12 is currently at the launch site being readied for launch later this month. DIRECTV desires to conduct IOT for approximately four weeks before moving the satellite to its licensed position to begin commercial operations. Specifically, DIRECTV contemplates the following schedule [with approximate dates indicated in brackets]:

- After launch and orbit raising maneuvers, DIRECTV 12 will be located at 76° W.L. [no earlier than about February 15, 2010].
- After DIRECTV 12 reaches 76° W.L., DIRECTV will then commence IOT of the satellite for approximately 4 weeks.¹
- After IOT is completed, DIRECTV 12 will then be drifted to its assigned location over the course of approximately 20 days [reaching that orbital position no later than about May 5, 2010].

¹ During the period covered by this STA, DIRECTV will use 29255.00 and 29497.00 MHz for its command uplinks and 18302.25 and 18302.75 MHz for its telemetry downlinks.

Marlene H. Dortch
December 1, 2009
Page 2 of 2

In order to address the timing uncertainties normally associated with positioning a spacecraft after launch, DIRECTV requests that the STA become effective upon the arrival of DIRECTV 12 at 76° W.L.

Operation and testing of DIRECTV 12 during IOT will consist of performance verification testing of all transponders and antenna pattern verification testing of all antenna beams. During this testing, unmodulated CW carriers will be used to generate swept frequency response and gain transfer characteristics of each transponder. The maximum value of transmit power used during this testing will be consistent with the DIRECTV 12 application,² except for short periods of time during gain transfer when the maximum transmit power could exceed that value by up to 7 dB.³ This testing will not result in harmful interference to other satellite systems as the closest co-frequency operational satellite is located 9° away. DIRECTV will also coordinate its TT&C operations with all other potentially affected operators to ensure that no harmful interference results. Furthermore, DIRECTV is prepared to terminate all testing operations immediately upon notification from the Commission that its operations cause harmful interference to any authorized user of the spectrum.

Grant of this STA request will serve the public interest by allowing DIRECTV to test the DIRECTV 12 satellite to ensure that it is fully operational and ready to begin providing service to millions of DIRECTV subscribers from the satellite's licensed orbital location. Allowing DIRECTV to test the satellite at 76° W.L. will serve the public interest by minimizing the risk of interference. Accordingly, and in light of the impending launch date, DIRECTV requests the expeditious grant of special temporary authority.

Respectfully submitted,



William M. Wiltshire
Counsel to DIRECTV Enterprises, LLC

² See IBFS File No. SAT-LOA-20090807-00086.

³ Note that, as with IOT testing of DIRECTV 10 and 11, all of DIRECTV 12 IOT testing will be closely coordinated with U.S. government systems under FN US334.