

S2922 SAT-STA-20170123-00008  
DIRECTV Enterprises, LLC  
SKY-B1

IB2017000162



\*with conditions

File # SAT-STA-20170123-00008

Call Sign S2922 Grant Date 02/01/17

(or other identifier)

From see conditions To: period of 30 days

Approved: Stephen J. Duall

Stephen J. Duall  
Chief, Satellite Policy Branch

Approved by OMB  
3060-0678

Date & Time Filed: Jan 23 2017 10:56:38:083AM  
File Number: SAT-STA-20170123-00008  
Callsign:

FEDERAL COMMUNICATIONS COMMISSION  
APPLICATION FOR SPACE STATION SPECIAL TEMPORARY AUTHORITY

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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:  
STA Request for SKY-B1 IOT

1. Applicant

Name:	DIRECTV Enterprises, LLC	Phone Number:	301-663-0053
DBA Name:		Fax Number:	240-358-0569
Street:	6050 Elmer Derr Rd	E-Mail:	jwengryniuk@directv.com
City:	Frederick	State:	MD
Country:	USA	Zipcode:	21703 -
Attention:	Jack Wengryniuk		

**ATTACHMENT TO GRANT**  
**DIRECTV Enterprises, LLC**  
**IBFS File No. SAT-STA-20170123-00008**

<b>IBFS File No(s):</b>	SAT-STA-20170123-00008	<p><b>GRANTED – With Conditions</b></p>  <p><b>International Bureau Satellite Division</b></p>
<b>Licensee/Grantee:</b>	DIRECTV Enterprises, LLC	
<b>Call Sign:</b>	S2922	
<b>Satellite Name:</b>	SKY-B1	
<b>Orbital Location: (required station-keeping tolerance)</b>	33.0° W.L. (±0.05 degrees east-west)	
<b>Administration:</b>	United States of America	
<b>Nature of Service:</b>	In-Orbit Testing (IOT)	
<b>Scope of Grant:</b>	SKY-B1 is authorized for a period of 30 days to: (1) conduct in-orbit testing at the 33.0° W.L. orbital location, and (2) conduct telemetry, tracking, and command operations necessary to maintain SKY-B1 at 33.0° W.L. during IOT and to drift to its authorized orbital location at 43.1° W.L.	
<b>Previous Grant(s):</b>	Authority to construct, deploy and operate a geostationary orbit space station, SKY-B1, at 43.1° W.L. IBFS File Nos. SAT-RPL-20140221-00026; SAT-AMD-20150806-00054	
<b>Service Area(s):</b>	N/A	
<b>Frequencies:</b>	10.7-10.95 GHz (space-to-Earth) 10.95-11.2 GHz (space-to-Earth) 11.2-11.45 GHz (space-to-Earth) 11.45-11.7 GHz (space-to-Earth) 11.7-12.2 GHz (space-to-Earth) 18.85-20.2 GHz (space-to-Earth) <sup>1</sup>  12.75-13.25 GHz (Earth-to-space) 13.75-14.0 GHz (Earth-to-space) 14.0-14.5 GHz (Earth-to-space) 28.65-30.0 (Earth-to-space) <sup>2</sup>  Telemetry, tracking, and command (TT&C): 11.443 and 11.4435 GHz or 11.4465 and 11.447 GHz (space-to-Earth) 13.2495 and 14.498 GHz (Earth-to-space)	
<p><b>Unless otherwise specified herein, operations under this grant must comport with the legal and technical specifications set forth by the applicant or petitioner and with Federal Communication Commission’s rules not waived herein. This grant is also subject to the following conditions:</b></p> <ol style="list-style-type: none"> <li>1. DIRECTV must operate the SKY-B1 space station at the 33.0° W.L. orbital location subject to the conditions in the authorization granted on May 11, 2016.<sup>3</sup></li> <li>2. All operations under this grant of special temporary authority must be on an unprotected and non-harmful interference basis, <i>i.e.</i>, DIRECTV must not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating station.</li> <li>3. In the event of any harmful interference under this grant of special temporary authority,</li> </ol>		

<sup>1</sup> Operations in these frequencies are subject to the authority of the Telecommunications Regulatory Authority of the United Arab Emirates, and this authorization does not include any grant of market access to the United States in this frequency band.

<sup>2</sup> *Id.*

<sup>3</sup> See IBFS File Nos. SAT-RPL-20140221-00026 and SAT-AMD-20150806-00054.

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DIRECTV must cease operations immediately upon notification of such interference, and must inform the Commission, in writing, immediately of such an event.

4. DIRECTV must coordinate the operations of SKY-B1 with existing geostationary space stations to ensure that no unacceptable interference results from its operations at the 33.0° W.L. orbital location or during the drift from the 33.0° W.L. orbital location to the 43.1° W.L. orbital location.

5. SKY-B1's operations at the 33° W.L. orbital location must be limited to IOT in the above-listed frequency bands and must not include the provision of commercial services.

6. DIRECTV must coordinate its TT&C operations with all other potentially affected operators and ensure that no harmful interference results.

7. This grant of special temporary authority will commence upon the arrival of SKY-B1 at the 33.0° W.L. orbital location.


Licensee/grantee is afforded thirty (30) days from the date of release of this action to decline the grant as conditioned. Failure to respond within this period will constitute formal acceptance of the grant as conditioned.

This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release.

Station licenses are subject to the conditions specified in Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. § 309(h).

<b>Action Date:</b>	February 1, 2017	
<b>Term Dates</b>	<b>From:</b> see conditions	<b>To:</b> period of 30 days

**Approved:**

  
 Stephen J. Duall  
 Chief, Satellite Policy Branch

2. Contact

<b>Name:</b>	Jennifer Hindin	<b>Phone Number:</b>	202-719-4975
<b>Company:</b>	Wiley Rein LLP	<b>Fax Number:</b>	202-719-7049
<b>Street:</b>	1776 K Street, NW	<b>E-Mail:</b>	jhindin@wileyrein.com
<b>City:</b>	Washington	<b>State:</b>	DC
<b>Country:</b>	USA	<b>Zipcode:</b>	20006 -
<b>Attention:</b>		<b>Relationship:</b>	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?

If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).

Governmental Entity  Noncommercial educational licensee

Other (please explain):

4b. Fee Classification CRY - Space Station (Geostationary)

5. Type Request

Change Station Location

Extend Expiration Date

Other

6. Temporary Orbit Location

7. Requested Extended Expiration Date

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.)

DIRECTV Enterprises, LLC requests a grant of Special Temporary Authority for 30 days to conduct in-orbit testing of the SKY-B1 satellite (Call Sign S2922) at 33 W.L. and to drift the satellite to its permanent location of 43.1 W.L.

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 1.2002(b) for the meaning of "party to the application"; for these purposes.  Yes  No

10. Name of Person Signing  
Jack M. Wengryniuk

11. Title of Person Signing  
Senior Director

12. Please supply any need attachments.

Attachment 1: Narrative

Attachment 2:

Attachment 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).

**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.**

**EXHIBIT 1**  
**REQUEST FOR SPECIAL TEMPORARY AUTHORITY**

DIRECTV Enterprises, LLC (“DIRECTV”) respectfully requests a grant of special temporary authority (“STA”)<sup>1</sup> for 30 days to conduct in-orbit testing (“IOT”) of the SKY-B1 satellite (Call Sign S2922) at 33° W.L. and to drift the satellite to its authorized location of 43.1° W.L.<sup>2</sup> DIRECTV requests that this special temporary authority commence upon arrival of SKY-B1 at 33° W.L., which is currently anticipated to be on or about February 20, 2017—six days after the satellite’s scheduled launch on February 14, 2017. The IOT period is expected to last approximately 26 days and the drift to 43.1° W.L. is expected to last approximately 10 days.<sup>3</sup>

SKY-B1 payload testing will be performed in the following frequency bands:

- 10.7 – 10.95 GHz, 10.95 – 11.2 GHz, 11.2 – 11.45 GHz, 11.45 – 11.7 GHz, and 11.7 – 12.2 GHz (space-to-Earth);
- 12.75 – 13.25 GHz, 13.75 – 14.0 GHz, and 14.0 – 14.5 GHz (Earth-to-space);
- 18.85-20.2 GHz (space-to-Earth); and
- 28.65-30.0 GHz (Earth-to-space).<sup>4</sup>

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<sup>1</sup> DIRECTV has filed this STA request, an FCC Form 159, and a \$945.00 filing fee electronically via the International Bureau’s Filing System.

<sup>2</sup> See *Policy Branch Information; Actions Taken*, Report No. SAT-01158, File No. SAT-AMD-20150806-00054 (May 13, 2016) (Public Notice). During the drift from 33° W.L. to 43.1° W.L., only the satellite’s TT&C frequencies will be utilized.

<sup>3</sup> To the extent necessary, DIRECTV will file a request for extension of special temporary authority to cover any testing or drift period that exceeds 30 days from SKY-B1’s arrival at 33° W.L.

<sup>4</sup> This request for special temporary authority for in-orbit testing of the 18.85-20.2 GHz (space-to-Earth) and 28.65-30.0 GHz (Earth-to-space) frequencies at 33° W.L. is not a request for any grant of market access to the United States in these frequencies. DIRECTV will conduct the in-orbit testing of the Ka-band frequencies at 33° W.L. on a non-interference basis. DIRECTV has reached out to Iridium to discuss this request for special temporary authority. As noted in footnote 2 of the FCC’s grant of authority for the SKY-B1 satellite, operations in the Ka-band frequencies at 43.1° W.L will be subject to the authority of the Telecommunications Regulatory Authority of the United Arab Emirates. See *DIRECTV Enterprises, LLC, Attachment to Grant*, File Nos. SAT-RPL-20140221-00026 and SAT-AMD-20150806-00054 (May 11, 2016).

Telemetry, Tracking, and Command (“TT&C”) services for SKY-B1 will be performed using the following center frequencies:

- 11.443 and 11.4435 GHz or 11.4465 and 11.447 GHz (space-to-Earth); and
- 13.2495 and 14.498 GHz (Earth-to-space).

During the IOT of SKY-B1, DIRECTV will operate in the above-referenced frequency bands. DIRECTV has identified the operational satellites within +/-6 degrees of the IOT location. Coordination is ongoing with several operators of such satellites to resolve potential interference issues. DIRECTV expects to complete coordination discussions before commencing IOT operations. In the unlikely event that harmful interference occurs during IOT, DIRECTV will take all necessary steps to eliminate the interference.

DIRECTV assessed and limited the probability of SKY-B1 becoming a source of debris as a result of collision with large debris or other operational space stations during IOT at 33° W.L. SKY-B1 will not be located at the same orbital location as another satellite or at an orbital location that has an overlapping station-keeping volume with another satellite. Further, DIRECTV is not aware of any other FCC-licensed system, or any other system applied for and under consideration by the FCC, having an overlapping station-keeping volume with SKY-B1 at 33° W.L. In addition, DIRECTV is not aware of any system with an overlapping station-keeping volume with SKY-B1 at 33° W.L. that is the subject of an International Telecommunication Union (“ITU”) filing and that is either in orbit or progressing towards launch.

To the extent necessary, DIRECTV requests that the waivers previously granted to SKY-B1 at 43.1° W.L. be extended to the satellite at 33° W.L. In particular, DIRECTV requests that



the previously granted waiver of footnote NG52 of the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, be extended as necessary to test the satellite at 33° W.L.<sup>5</sup>

The IOT of SKY-B1's payloads at 33° W.L. is a critical step in ensuring that the satellite will be fully operational at 43.1° W.L. This, in turn, will provide additional capacity to customers at the 43.1° W.L. location, thereby promoting the public interest. Accordingly, DIRECTV respectfully requests that the Commission grant this request.

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<sup>5</sup> See *supra* note 2.