

S2861

SAT-STA-20150415-00024

IB2015000704

DIRECTV Enterprises, LLC
DIRECTV KU-79W



File # SAT-STA-2015 0415-00024

Call Sign S2861 Grant Date 05/07/15

(or other identifier)

From see conditions Term Dates period of 30 days
To:

Approved by OMB
3060-0678

Date & Time Filed: Apr 15 2015 3:58:17:080PM
File Number: SAT-STA-20150415-00024
Callsign:

Approved: Stephen J. Duall

Stephen J. Duall
Chief, Satellite Policy Branch

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:
KU-79W STA

1. 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:	Mr Jack M Wengryniuk		

DIRECTV Enterprises, LLC
IBFS File Nos. SAT-STA-20150415-00024

The application of DIRECTV Enterprises, LLC (DIRECTV) for special temporary authority, IBFS File No. SAT-STA-20150422-00030, IS GRANTED. Accordingly, DIRECTV is authorized for a period of 30 days, commencing upon the arrival of DIRECTV KU-79W (Call Sign S2861) at the 77.5° W.L. orbital location, to conduct in-orbit testing (IOT) of DIRECTV KU-79W using the 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space) frequency bands, and to conduct telemetry, tracking, and control (TT&C) using the 11.704 GHz and 11.705 GHz (space-to-Earth), and 14.005 GHz and 14.495 GHz (Earth-to-space) frequency bands. Upon completion of IOT, DIRECTV is also authorized to conduct TT&C operations necessary to drift DIRECTV KU-79W to the assigned orbital location at 79° W.L. Operations under this authorization are subject to the terms, conditions, and technical specifications set forth in DIRECTV's application and the Federal Communications Commission's rules, and are subject to the conditions set forth below.

1. All operations under this grant of special temporary authority must be on an unprotected and non-harmful interference basis. DIRECTV must not cause harmful interference to, and must not claim protection from interference caused to it by, any other lawfully operating radio communication system.
2. In the event of any harmful interference as a result of operations under this grant of special temporary authority, DIRECTV must cease operations immediately upon notification of such interference and must immediately inform the Commission, in writing, of such an event.
3. DIRECTV must coordinate operations of DIRECTV KU-79W with existing geostationary space stations to ensure that no unacceptable interference results from its operations at the 77.5° W.L. orbital location or during drift to the 79° W.L. orbital location.
4. DIRECTV KU-79W's operations at 77.5° W.L. must be limited to IOT and must not include the provision of commercial services.
5. DIRECTV must operate only the TT&C frequencies on DIRECTV KU-79W during the space station's drift from the 77.5° W.L. orbital location to the 79° W.L. orbital location.
6. During IOT, DIRECTV must maintain the DIRECTV KU-79W space station with an east/west longitudinal station-keeping tolerance of +/- 0.05 degrees of the 77.5° W.L. orbital location.
7. Any action taken or expense incurred as a result of operations pursuant to this grant of special temporary authority is at DIRECTV's own risk.
8. DIRECTV must notify the Commission, in writing that IOT operations have begun, within two business days of the commencement.
9. This grant is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release.



*with conditions

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(or other identifier)

From see conditions Term Dates period of 30 days
To: 30 days

Approved: _____

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

2. Contact

Name:	William M. Wiltshire	Phone Number:	202-730-1350
Company:	Harris, Wiltshire & Grannis LLP	Fax Number:	202-730-1301
Street:	1919 M Street NW Suite 800	E-Mail:	wwiltshire@hwglaw.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036 -
Attention:		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?

- 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
77.5 W.L.

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 hereby requests Special Temporary Authority to conduct in-orbit testing of the KU-79W satellite at the 77.5 W.L. orbital location.

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
Romulo Pontual

11. Title of Person Signing
Executive Vice President Chief Technology Officer

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).

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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.

April 15, 2015

BY ELECTRONIC FILING

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 KU-79W at 77.5° W.L.*

Dear Ms. Dortch:

DIRECTV Enterprises, LLC (“DIRECTV”) hereby requests Special Temporary Authority (“STA”) to locate the DIRECTV KU-79W satellite (call sign S2861) at the 77.5° W.L. orbital location for in-orbit testing (“IOT”) after launch of the satellite, which is currently scheduled for May 20, 2015. 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 77.5° W.L.

DIRECTV KU-79W is currently at the launch site being readied for launch. DIRECTV desires to conduct IOT for approximately two 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 KU-79W will be located at 77.5° W.L. [no earlier than about May 30, 2015].
- After DIRECTV KU-79W reaches 77.5° W.L., DIRECTV will then commence IOT of the satellite for approximately 2 weeks.¹
- After IOT is completed, DIRECTV KU-79W will then be drifted to its assigned location at 78.8° W.L. (nominal) over the course of approximately 3 to 5 days [reaching that orbital position on or about June 17, 2015].

¹ During the period covered by this STA, DIRECTV will use 14001 and 14496.5MHz for its command uplinks and 11700.75 and 11702.25 MHz for its telemetry downlinks.

HARRIS, WILTSHIRE & GRANNIS LLP

Marlene H. Dortch
April 15, 2015
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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 KU-79W at 77.5° W.L.

Operation and testing of DIRECTV KU-79W 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 KU-79W application,² except for short periods of time during gain transfer when the maximum transmit power could exceed that value by up to 2 dB during some tests. This testing will not result in harmful interference to other Ku-band satellite systems as the closest co-frequency co-coverage operational satellite is located 5.5° away.³ 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 KU-79W 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 77.5° 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,

/s/

William M. Wiltshire
Counsel to DIRECTV Enterprises, LLC

² See IBFS File Nos. SAT-LOA-20120316-00051 and SAT-AMD-20120420-00071.

³ Note that Star One C3 is located at 75° W.L. but the co-frequency operations of this satellite are restricted to Brazil. Also note that Intelsat 16 is located at 79° W.L., but DIRECTV is the sole leasee of this satellite and will self-coordinate any IOT interference. Finally, note that AMC-2 is located at 81° W.L., but co-frequency coverage of that satellite is limited to South America.