

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
DIRECTV Enterprises, LLC)	File Nos. SAT-MOD-20140612-00066 &
)	SAT-MOD-20140624-00075
Applications for Modification of the)	Call Sign S2712
RB-2 Satellite License)	

To: International Bureau

PETITION TO CONDITION OF DISH OPERATING L.L.C.

Pursuant to Section 25.154 of the Commission’s rules,¹ DISH Operating L.L.C. (“DISH”) hereby files this petition to request that the Commission impose a coordination condition if the FCC believes that grant of the above-referenced Applications of DIRECTV Enterprises, LLC (“DIRECTV”) is otherwise in the public interest.² Specifically, DISH asks that the FCC condition any positive action on the Applications on a requirement that DIRECTV complete coordination with Ciel Satellite Limited Partnership (“Ciel”) and modify its RB-2 operational parameters to reflect that coordination, all before commencing operations in the 17/24 GHz Broadcasting-Satellite Service (“BSS”) band.

The DIRECTV RB-2 satellite is licensed to operate in the 17/24 GHz BSS at the nominal 103° W.L. orbital location.³ In the Applications, DIRECTV proposes increased power and other

¹ 47 C.F.R. § 25.154.

² DIRECTV seeks to modify the operational parameters for the RB-2 satellite, IBFS File No. SAT-MOD-20140612-00066 (filed Jun. 12, 2014) (“Payload Modification”), and to extend the launch and operations milestone for the satellite, IBFS File No. SAT-MOD-20140624-00075 (filed Jun. 24, 2014) (“Extension Request,” and with the Payload Modification, the “Applications”).

³ See *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.*

changed technical parameters for the satellite⁴ and requests that the Commission either extend the milestone date to launch and begin operations of the spacecraft to April 27, 2015, or waive the milestone.⁵

As discussed below, DISH has contractual rights to use the Canadian-licensed Ciel-6i payload, which is in operation in the 17/24 GHz BSS band at 103° W.L. pursuant to an ITU satellite network filing with date priority over the ITU filing that the DIRECTV RB-2 satellite utilizes.⁶ In order to ensure that DISH does not suffer interference from the operation of RB-2, DISH requests that if the Commission finds that it is otherwise in the public interest to grant the Applications, DIRECTV should not be authorized to begin 17/24 GHz BSS operations until it completes coordination with Ciel and modifies the RB-2 operational parameters to reflect that coordination.

I. BACKGROUND

Industry Canada has authorized Ciel, an affiliate of SES Americom, Inc. (“SES”), to operate in the 17/24 GHz BSS frequencies at the 103° W.L. orbital location. On September 21, 2012, Industry Canada granted Ciel a license to operate a payload known as “Ciel-6i” in this

Orbital Location, Order and Authorization, 24 FCC Rcd 9393 (IB 2009) (“*DIRECTV S2712 Grant*”).

⁴ See Payload Modification, Narrative at 4-11 and Appendix A.

⁵ See Extension Request, Exhibit A.

⁶ *SES Americom, Inc., Application for Authority to Operate the SES-3 Satellite at the 103° W.L.*, 29 FCC Rcd 3678, 3681 ¶ 8 (IB 2014) (“The Canadian ITU filing for the 17/24 GHz BSS operations at the 103° W.L. orbital location predates the U.S. filing.”); see also *id.* at 3681 n.24 (“The Canadian CANBSS-19 filing was filed on January 30, 2006 and published in Special Section CRC 1907 with IFIC No. 2590 on March 3, 2007 prior to the date of filing of the U.S. filings. USABSN-12 was filed on February 10, 2006 and published in Special Section CRC 2009 with IFIC No. 2600 on July 23, 2007, USABSN-12A, was filed on September 24, 2008 and published in Special Section CRC 2389 with IFIC No. 2648 on June 29, 2009; and, USABSN-12B filing was filed on August 19, 2011 and published in Special Section CRC 3410 with IFIC No. 2756 on October 14, 2013.”)

spectrum at 103° W.L.,⁷ and Ciel-6i subsequently commenced operations.⁸ Ciel-6i is a payload on the SES-3 satellite, which is positioned at 103° W.L.⁹ The Canadian ITU filing for the 17/24 GHz BSS frequencies at the 103° W.L. orbital location, for coverage that includes all of North America, was filed on January 30, 2006, prior to the U.S. filing for DIRECTV's 17/24 GHz BSS satellite at this nominal location.¹⁰ The Ciel-6i filing therefore has international date priority over the relevant DIRECTV 17/24 GHz filing.

Hughes Network Systems Canada ULC ("HNS Canada") has a contract with Ciel to use the 17/24 GHz BSS capacity on Ciel-6i and has, in turn, leased this capacity to DISH. DISH plans to use the 17/24 GHz capacity for the provision of video services that may play a role in the terrestrial wireless broadband network planned by DISH's affiliate, DISH Network Corporation, and its subsidiaries.¹¹ Based on the results of these efforts, DISH hopes to be able to identify and address any technical or other deployment issues with the service discovered over the course of operations.

In September of 2006, DIRECTV filed for Commission authority to launch and operate a space station in the 17/24 GHz BSS at the nominal 103° W.L. orbital location, and that

⁷ Industry Canada Radio License, Account No. 07-150006068, effective Sept. 21, 2012; Letter of Suzanne Lambert, Director, Space Services Operations, Industry Canada, to Bernie Haughian, Managing Director, Ciel Satellite Limited Partnership, Sept. 21, 2012 (approving Ciel's plan to use an interim 17/24 GHz BSS satellite at 103° W.L.). The 17/24 GHz BSS payload is designated Ciel-6i. See IBFS File Nos. SAT-RPL-20121228-00227 and SAT-AMD-20131113-00132, Opposition of SES Americom, Inc. at 5 (filed Dec. 14, 2013).

⁸ The Ciel-6i payload is capable of operating anywhere within the 24.75-25.25 GHz and 17.3-17.8 GHz bands and consists of a single 500 MHz transponder.

⁹ See IBFS File Nos. SAT-RPL-20121228-00227 and SAT-AMD-20131113-00132, Application of SES Americom, Inc. at 3-5 (filed Dec. 28, 2012).

¹⁰ See *supra* n.6.

¹¹ DISH is preparing an application for authority to operate up to 50,000 earth stations in the United States for the purpose of receiving service from Ciel-6.

application was granted in 2009.¹² DIRECTV submitted the application fully aware that it did not have international priority under relevant ITU rules.¹³ Moreover, “[i]t is longstanding Commission policy that grant of an authorization to construct, launch, and operate a space station carries with it the responsibility to coordinate with other potentially affected space station operators.”¹⁴ In comments on DIRECTV’s application, both Ciel and SES highlighted the obligation of U.S. licensees to coordinate with higher priority ITU filings and asked the Commission to explicitly condition any grant of DIRECTV’s application on adherence to the ITU’s procedures.¹⁵ In accordance with longstanding Commission policy and Section 25.111(b) of its rules, the FCC required such adherence and coordination as a condition of its grant of DIRECTV’s application:

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 assignment with other Administrations.¹⁶

¹² See *DIRECTV S2712 Grant*.

¹³ See IBFS File Nos. SAT-LOA-20060908-00100, *et al.*, Application for Authorization to Launch and Operate DIRECTV BSS-103W, A Satellite in the 17/24 GHz Broadcasting Satellite Service at 21 (filed Sept. 8, 2006).

¹⁴ *Establishment of Policies and Services Rule for the Broadcasting-Satellite Service at the 17.3-17.7 GHz Frequency Band and at the 17.7-17.8 GHz Frequency Band Internationally, and at the 24.75-25.25 GHz Frequency Band for Fixed Satellite Services Providing Feeder Links to the Broadcasting-Satellite Service and for the Satellite Services Operating Bi-directionally in the 17.3-17.8 GHz Frequency Band*, Second Order on Reconsideration, 25 FCC Rcd 15718, 15720, ¶ 9 (2010).

¹⁵ See *DIRECTV S2712 Grant*, 24 FCC Rcd at 9394-95, ¶ 4.

¹⁶ *Id.* at 9407, ¶ 41 (emphasis added).

Accordingly, under international rules, the FCC regulations, and its own license condition, DIRECTV must coordinate with Ciel. To date, no such coordination agreement has been concluded.

II. THE FCC SHOULD NOT AUTHORIZE DIRECTV TO BEGIN 17/24 GHz BSS OPERATIONS UNTIL DIRECTV COMPLETES COORDINATION WITH CIEL

As discussed above, DISH has contracted to use 17/24 GHz BSS frequencies at 103° W.L. on Ciel-6i. As part of its decision to utilize this spectrum, DISH relied on the fact that the Ciel-6i payload holds the highest priority at the ITU and is able to utilize the full complement of licensed spectrum in the 17/24 GHz BSS band over North America. This reliance was based on Ciel's rights under ITU procedures and on the FCC's explicit licensing condition requiring DIRECTV to operate RB-2 in a manner consistent with FCC rules and practices, as well as with applicable ITU policies.

DISH understands that DIRECTV has not entered into a coordination agreement with Ciel despite Ciel's repeated efforts. In fact, although Ciel has been attempting to move the discussions forward, DIRECTV has refused to progress this issue except on its terms. DIRECTV should not be rewarded for disregarding its explicit obligation to coordinate. The FCC should therefore require DIRECTV to complete coordination with Ciel and submit a further modification to the proposed RB-2 technical parameters to reflect the terms of such coordination before it can operate in the 17/24 GHz BSS spectrum.¹⁷

¹⁷ See *Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Satellite Service in the United States*, Report and Order, 12 FCC Rcd 24,094, 24,183 ¶ 214 (1997) (“[I]t is paramount that all operators providing satellite service in the United States comply with Commission rules and policies applicable to that particular satellite service. In addition, we often attach specific conditions to licenses relating to operating requirements, system implementation requirements, and technical parameters. Entities violating the terms of their license are subject to administrative penalties,

Such action is particularly important here as the risk of harmful interference is very real. Yet, DIRECTV does not even attempt to demonstrate that RB-2 can operate at 102.75° W.L. over the same frequencies and coverage area as Ciel-6i without causing harmful interference. The attached Appendix A quantifies the adverse impact that RB-2 will have on Ciel-6i, and shows that a 36-MHz carrier on Ciel-6i that is representative of the carrier that DISH would use for its service would have a negative margin of 17.6 dB.

III. CONCLUSION

For the reasons described above, as a condition to any grant of the referenced Applications, the FCC should require that, prior to commencing 17/24 GHz operations, DIRECTV enter into a coordination agreement with Ciel with respect to its 17/24 GHz operations and seek modification of its RB-2 authority to reflect the terms of coordination.

Respectfully Submitted,

By: /s/_____

Alison Minea
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September 2, 2014

including monetary forfeitures and license revocation. We will continue our efforts to ensure compliance by all providers, whether U.S. or foreign, and to impose sanctions when appropriate.”)

Certificate of Service

I, Alison Minea, hereby certify that on September 2, 2014, I sent true and complete copies of the above Petition to Condition via First Class mail to the following people:

Mr. Jack M. Wengryniuk
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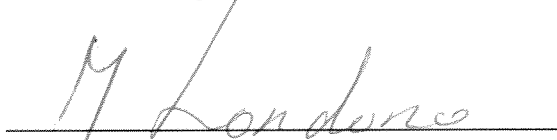
/s/ _____
Alison Minea

DECLARATION

I, Jaime Londono, declare under penalty of perjury that the following facts are true and correct to the best of my knowledge, information, and belief:

1. I am employed as the Vice President, Advanced Programs and Spectrum Management, for EchoStar Satellite Operating Corporation.
2. I have personal knowledge of the analysis contained in Annex A, which quantifies the adverse impact that RB-2 will have on Ciel-6i, and shows that a 36-MHz carrier on Ciel-6i that is representative of the carrier that DISH Operating L.L.C. would use for its service would have a negative margin of 17.6 dB.

Executed on September 2, 2014:

A handwritten signature in cursive script, appearing to read "Jaime Londono", is written over a solid horizontal line.

Jaime Londono

EchoStar Satellite Operating Corporation

Appendix A

Ciel-6i with interference from +/-4 deg neighbors		
Ciel-6i orbital location	°E	-103.0
Ciel-6i uplink frequency	GHz	25000
Ciel-6i user data rate	kbps	14820
Ciel-6i modulation		QPSK
Ciel-6i total coding rate		0.247
Ciel-6i number of carriers per txp		6
Ciel-6i carrier bandwidth	MHz	36
Ciel-6i uplink EIRP	dBW	70.9
Ciel-6i TX earth station gain	dBi	57.4
Ciel-6i uplink input power / carrier	dBW	13.5
Ciel-6i uplink input power density	dBW/Hz	-61.3
Ciel-6i RX G/T satellite	dB/K	-8
Ciel-6i uplink carrier thermal C/N	dB	4.4
Ciel-6i uplink ASI from +/-4 neighbors	dB	38.7
Ciel-6i C/(N+I) uplink	dB	4.4
Ciel-6i downlink frequency	MHz	17500
Ciel-6i downlink in EIRP / 36 MHz	dBW	23.1
Ciel-6i RX earth station location		Vancouver
Ciel-6i RX earth station on-axis gain	dBi	59.4
Ciel-6i RX earth station antenna pointing error	dB	0.3
Ciel-6i RX earth station noise temperature	K	150
Ciel-6i downlink carrier thermal C/N	dB	5.4
Ciel-6i downlink ASI from +/-4 degree neighbors	dB	7.0
Ciel-6i C/(N+I) downlink	dB	3.1
Ciel-6i C/(N+I) overall		0.7
Ciel-6i C/(N+I) required	dB	-2.0
Ciel-6i margin	dB	2.7

RB-2 impact into Ciel-6i		
RB-2 orbital location	°E	-102.75
Ciel-6i orbital location	°E	-103.0
RB-2 uplink EIRP / 36 MHz towards Ciel-6i	dBW	42.8
RB-2 peak downlink EIRP / 36 MHz	dBW	58.9
RB-2 downlink EIRP towards Ciel-6i earth station	dBW	52.90
Ciel-6i RX earth station antenna gain towards RB-2	dBi	47.2

Aggregate downlink interference into Ciel-6i with RB-2	dB	-17.6
Aggregate uplink interference into Ciel-6i with RB-2	dB	27.7
Aggregate Inteference into Ciel-6i with RB-2 included	dB	-17.6