

December 18, 2014

**BY ELECTRONIC FILING**

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

*Re: Notice of Ex Parte Presentations, IBFS File Nos. SAT-RPL-20121228-00227,  
SAT-AMD-20131113-00132, and SES-LFS-20140924-00752*

Dear Ms. Dortch:

On December 16, 2014, Phil Goswitz, Stacy Fuller, Jack Wengryniuk and undersigned counsel on behalf of DIRECTV Enterprises, LLC (“DIRECTV”) had separate meetings with the following Commission personnel with respect to the above referenced proceedings:

- Diane Cornell, Special Counsel to Chairman Wheeler,
- David Goldman, Senior Legal Advisor to Commissioner Rosenworcel,
- Louis Peraertz, Legal Advisor to Commissioner Clyburn,
- Brendan Carr, Legal Advisor to Commissioner Pai,
- Erin McGrath, Legal Advisor to Commissioner O’Rielly, and
- Mindel De La Torre, Troy Tanner, Jose Albuquerque, Karl Kensinger, and Lynne Montgomery of the International Bureau.

During each meeting, the DIRECTV representatives provided and discussed the attached presentation.

Respectfully submitted,

/s/

William M. Wiltshire  
*Counsel for DIRECTV Enterprises, LLC*

Attachment

cc: Karis A. Hastings  
Margaret L. Tobey  
Stephanie Roy  
FCC Meeting Attendees



# Licensing Issues at the 103W Orbital Location

*December 16, 2014*

- AMC-1 C/Ku satellite at 103W is “reliable” through 2016
- Both DIRECTV and SES/Ciel are licensed to operate at 103W in the 17/24 GHz BSS band
- DIRECTV has launched first 17/24 GHz BSS satellite to 99W; second satellite complete and ready for launch to 103W in Q2 2015
- Prior to seeking US authorization, SES used SES-3 to disadvantage US interests, including at 103W
- SES now seeks the benefits of a US license for the C/Ku-band payloads on SES-3 while Ciel continues to block DIRECTV’s use of the 17/24 GHz BSS band
- There is no reason to rush to grant SES-3 a US license prior to completion of coordination

- DIRECTV pioneered 17/24 GHz BSS service in the U.S.
  - *DIRECTV filed a petition for rulemaking to create this service in 1997*
  - *Pushed for spectrum allocation and service rules for over a decade*
- DIRECTV also applied for 17/24 GHz BSS licenses in 1997
- Awarded two licenses in first round of grants, for 99W and 103W, in July 2009
  - *First satellite launched to 99W on December 6*
  - *Second satellite fully constructed, awaiting launch vehicle*

- DIRECTV has been operating at 99W and 103W since 2005 in the FSS Ka-band (20/30 GHz)
- This served as cornerstone for DIRECTV leading the HD revolution
- DIRECTV plans to use 17/24 GHz BSS at 99/103W to lead the introduction of Ultra HD services
- Currently nearly 15 million DIRECTV subscribers receive service from 99/103W
  - *Placing 17/24 GHz BSS at the same locations enables subscribers to use a single small dish to receive programming in all bands*

## Downlink Frequencies



**Specific Bands Assigned at Each Orbital Slot**



# UltraHD Service Is Here



DIRECTV 4K VOD  
As of 10/2/2014

DIRECTV | DIRECTV  
4K READY

The image features two televisions against a dark blue background. The television on the left is a flat-screen model displaying a high-resolution image of a city at night, with a satellite in orbit above it. The television on the right is a curved model displaying a ballerina in a white tutu performing on a stage in a grand, ornate theater. The text "DIRECTV 4K VOD" and "As of 10/2/2014" is positioned in the upper left corner of the overall image. The text "DIRECTV | DIRECTV 4K READY" is positioned in the upper right corner. The DIRECTV logo is also present in the upper right corner.

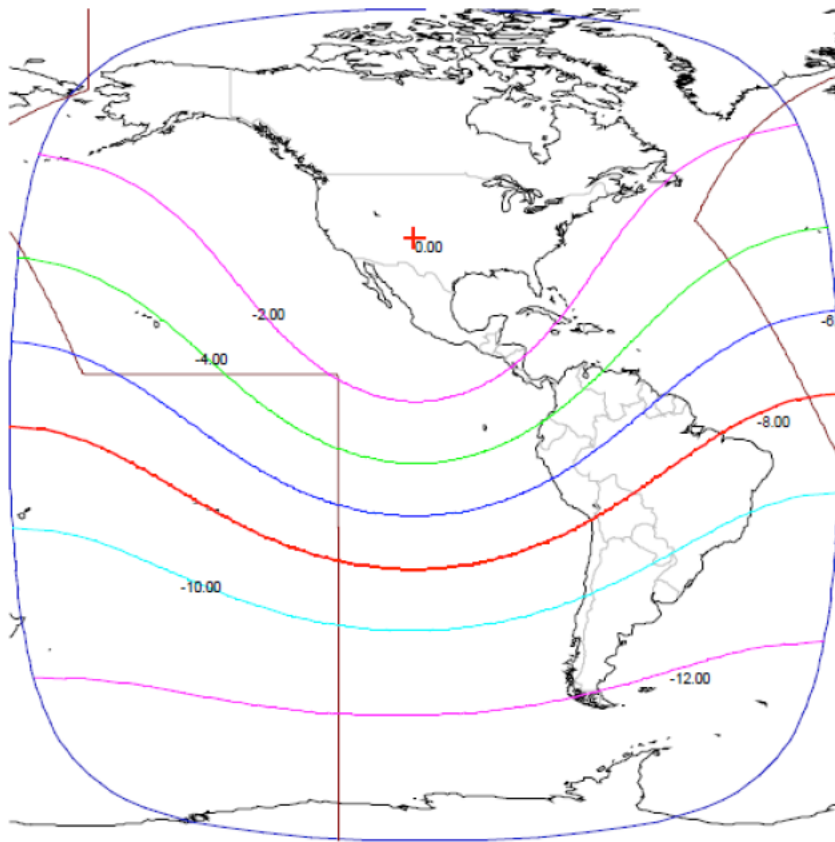
- SES operates the C/Ku-band AMC-1 satellite at 103W
- AMC-1 is licensed through October 2016
  - *The FCC extended the license in 2011 based on SES's representation that the spacecraft would be able to "continue providing reliable service" through October 2016*
- Satellite continues to perform – in fact, SES continues to market capacity on AMC-1
  - *For example, just last month, iN DEMAND extended its agreement for C-band capacity on the spacecraft*
- According to SES, "the next window for the transition [to SES-3] will not open until after the end of the NFL season in February 2015 (at the earliest)"
- Clearly, there is no urgency to replace AMC-1



- SES-3 was originally launched under Luxemburg authority in July 2011
  - *Like SES-1 and SES-2, carries a token 17-24GHz BSS payload*
- After in-orbit testing, SES-3 was positioned at 99W
  - *LUX claimed at ITU to have brought 17-24 GHz BSS into use*
  - *ITU later rejected that claim*
- SES then sent SES-3 to 108E for another mission
- SES-3 arrived at 103W in late September 2012
  - *SES used token 17/24 GHz BSS payload on SES-3 to bring into use a Canadian ITU network at 103W*
- Only after completing all of these other activities did SES seek to re-flag the C/Ku-band payloads on SES-3 as US in late December 2012

- Ciel was originally licensed for 17/24 GHz BSS (Ciel 6) by Industry Canada in June 2008
  - *License application proposed serving Canada*
  - *License grant required a satellite to be in use by 1/1/2013*
  - *License was modified in October 2009 requiring “interim” satellite (Ciel 6i) by 1/1/2013 and “new” satellite (Ciel 6) by 1/1/15*
  - *License was modified again in September 2012 requiring “new” satellite by 12/1/18 (over 10 years from initial grant)*
  - *Token payload on SES-3 has become Ciel 6i*
- Ciel’s customer, DISH Network, has contractual rights to use Ciel’s 17/24 GHz BSS capacity at this slot
  - *Recently filed for blanket earth station authorization to explore the possibility of feeding video to as-yet unbuilt terrestrial mobile network*

# Ciel 6i vs DIRECTV RB-2 Capability at 103W



**Ciel 6i**

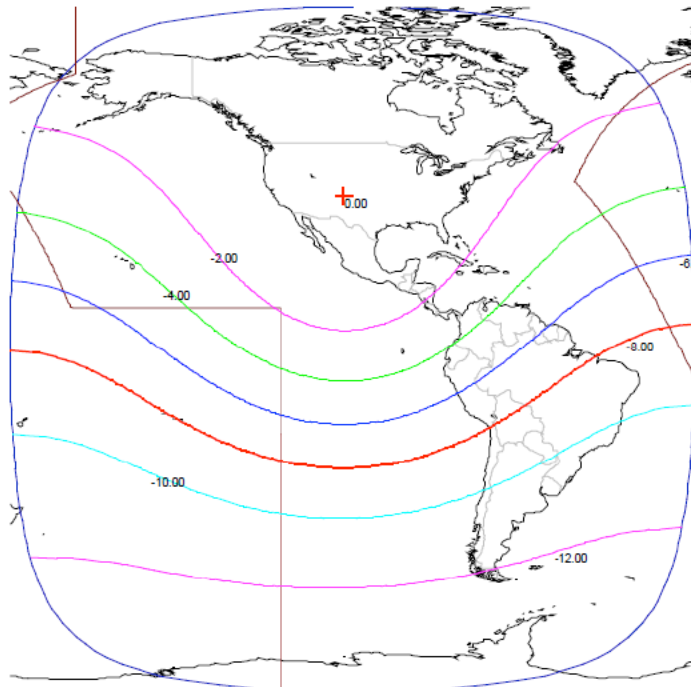


**DIRECTV RB-2**

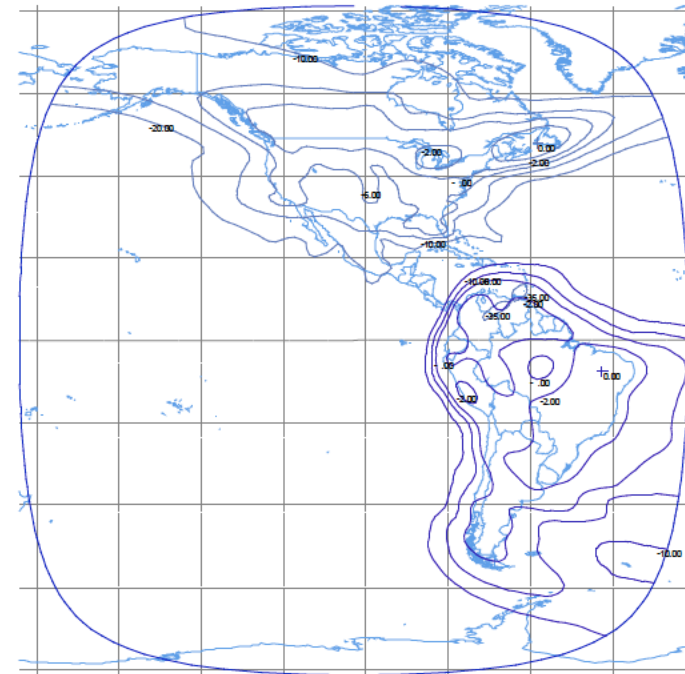
Very broad beam from simple horn antenna  
Single 500 MHz channel (only 400 MHz available in US)  
Single TWTA amplifier to support this single channel  
Receives LHCP, transmits LHCP/RHCP  
Very limited transmit power capability: 33 dBW max

Shaped CONUS beam + HI and P.R. spot beams  
Eighteen 36 MHz channels  
39 TWTA amplifiers to support these eighteen channels  
Max transmit power capability of:  
59 dBW CONUS, 57.5 dBW HI, 60.6 dBW P.R.  
**(i.e. over 400 times the transmit power of Ciel 6i)**

# Ciel 6i vs CAN-BSS19 Capability



**Ciel 6i**



**CAN-BSS19**

- Single low gain (23 dBi) TX and RX beam
- Single 500 MHz channel
- Receives LHCP, transmits LHCP/RHCP
- Very low transmit power capability: 33 dBW max

- Shaped CONUS beam (35 dBi), Shaped South America Beam (35 dBi), Steerable high gain beam (44.5 dBi) **(i.e. 16 to 140 times the gain of Ciel 6i)**
- Twenty-four 24 MHz channels across 500 MHz
- Receives and transmits LHCP/RHCP
- Max transmit power capability of:  
57 dBW CONUS, 57 dBW S.A., 64.5 dBW steerable **(i.e. over 250 times the transmit power of Ciel 6i)**
- Min transmit power capability of 53/53/60.5 dBW **(i.e., over 100 times the transmit power of Ciel 6i)**

- There is no urgent need to replace AMC-1, which continues its “reliable” performance
  - *SES used SES-3 for other missions for over a year before even placing the satellite at 103W*
- In any event, SES says that it cannot swap SES-3 for AMC-1 until “at least” February 2015
- In the meantime, coordination of 17/24 GHz BSS operations between DIRECTV and Ciel continues
  - *FCC and Industry Canada are assisting in search for compromise solution*
  - *Public interest analysis may depend upon the outcome of the coordination process*

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