

**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
License to Launch and Operate)	
DIRECTV RB-2 and for Extension or)	
Waiver of the Launch and Operations Milestone)	

**PETITION TO DENY OF SES AMERICOM, INC.
AND CIEL SATELLITE LIMITED PARTNERSHIP**

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SUMMARY

Because DIRECTV has not justified its request for relief from the launch and operations milestone for the RB-2 17/24 GHz BSS payload, its authority for the payload should be declared null and void pursuant to the license terms. If the license is not otherwise cancelled, the Commission must deny or defer operational authority for the RB-2 payload because its operations would create unacceptable interference into the higher-priority Ciel-6i network at the same nominal orbital location. Giving DIRECTV a “pass” on either of these items would be contrary to the public interest: extending or waiving the milestone would conflict with the well-established public policy objectives underlying the milestone framework, and awarding operating authority would violate U.S. treaty obligations as embodied in Commission orders and rules and reflected in the express provisions of the RB-2 license.

DIRECTV’s own account makes clear that delays in RB-2’s construction stem from business decisions made by DIRECTV, not from factors outside the company’s control. DIRECTV attempts to blame lagging delivery of Ka-band traveling wave tube arrays for its milestone noncompliance. Yet in response to notification of the component shortage, DIRECTV entered into a new construction contract requiring manufacturing to start over at square one, with a prospective completion date that meant RB-2 could not be launched on time. DIRECTV also chose to add Ka-band FSS and DBS payloads to the spacecraft, despite the fact that these changes required even more of the scarce TWTAs. Commission precedent makes clear that these voluntary choices by DIRECTV cannot justify a milestone extension.

The resulting construction delays ensured that launch of RB-2 would be late even if DIRECTV experienced no problems in scheduling the launch. Thus, DIRECTV’s insistence that it diligently entered into a launch contract is irrelevant, because DIRECTV’s own choices had already made timely launch impossible. DIRECTV’s decision to wait until shortly before the

milestone date to seek milestone relief further undercuts any conceivable rationale for extension or waiver, particularly since DIRECTV knew in 2011 that it could not meet its milestone.

No public interest would be served by extending or waiving DIRECTV's milestone. The simple fact that DIRECTV – at its own risk and without seeking Commission sanction – continued to make payments under the RB-2 construction and launch agreements does not justify relieving DIRECTV of the consequences of its milestone noncompliance. In this respect, DIRECTV's reliance on the Satellite Division's *TerreStar* decision is unavailing because that case addressed extension of an interim milestone with no impact on the required date to commence operations. In contrast, extension or waiver here would undercut the Commission's objective of expediting service to the public and create a precedent allowing a licensee to unilaterally override the required milestone schedule.

If it does not revoke the RB-2 license, the Commission must at least deny or defer operational authority for the 17/24 GHz BSS payload. ITU procedures, Commission policies, and the RB-2 license all make clear that DIRECTV must operate on a non-harmful interference basis with respect to the higher-priority Ciel network at this orbital location. Yet despite having had more than five years to do so, DIRECTV has not completed coordination with Ciel, and it proposes operating at levels that would certainly interfere with Ciel-6i. Because DIRECTV inexplicably ignores Ciel-6i in its technical discussion, the RB-2 payload modification fails to comply with Commission rules requiring applicants to show their ability to operate consistently with other authorized systems. Given these flaws, the modification application should be denied and DIRECTV should not receive operating authority unless and until it coordinates with Ciel and adjusts the RB-2 parameters to reflect the terms of coordination.

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**PETITION TO DENY OF SES AMERICOM, INC.
AND CIEL SATELLITE LIMITED PARTNERSHIP**

SES Americom, Inc. (“SES Americom”) and Ciel Satellite Limited Partnership (“Ciel,” and with SES Americom, “SES”) hereby petition the Commission to deny the above-captioned applications of DIRECTV Enterprises, LLC (“DIRECTV”) to modify the license terms for the RB-2 17/24 GHz Broadcasting Satellite Service (“BSS”) payload.¹ DIRECTV’s request to extend or waive the RB-2 launch and operations milestone must be rejected because the delay in completion of the payload is the result of DIRECTV’s voluntary actions, and granting relief would undermine the important public interest objectives of the milestone regulatory framework. Moreover, the analysis in DIRECTV’s request to modify the technical terms of the RB-2 license inexplicably fails to account for the Ciel-6i 17/24 GHz BSS payload operating at the same nominal orbital location or recognize DIRECTV’s obligation to protect Ciel’s operations from harmful interference consistent with International Telecommunication Union (“ITU”) procedures and the express terms of the RB-2 license. Given these defects, both applications should be denied. At the very least, operating authority for the RB-2 payload must be withheld.

¹ *DIRECTV Enterprises, LLC*, File No. SAT-MOD-20140612-00066 (“RB-2 Payload Modification”) and File No. SAT-MOD-20140624-00075 (“RB-2 Milestone Extension”).

I. INTRODUCTION

SES Americom and Ciel are both parties in interest with respect to DIRECTV's applications to modify the RB-2 license, which authorizes DIRECTV to operate in the 17/24 GHz BSS frequencies at the nominal 103° W.L. orbital location.² DIRECTV has opposed SES Americom's application to operate the SES-3 replacement satellite at 103° W.L. in the C- and Ku-band frequencies based on arguments relating to the RB-2 payload.³ Citing DIRECTV's pleadings and the alleged need "to provide a period" during which DIRECTV and SES Americom can "pursue resolution of coordination matters" relating to the 17/24 GHz BSS spectrum, the Commission has deferred action on SES-3 replacement authority,⁴ blocking SES Americom from providing timely follow-on capacity to its customers and stranding SES Americom's significant investment in that capacity.

Ciel has been licensed by Canada for the same 17/24 GHz BSS frequency bands for which RB-2 is authorized at 103° W.L., and the Ciel-6i payload aboard SES-3 currently operates in that spectrum.⁵ As DIRECTV and the Commission have been aware from the initial stages of the RB-2 application, the Canadian ITU filings for the 17/24 GHz BSS frequencies have date

² *DIRECTV Enterprises, LLC*, Order and Authorization, 24 FCC Rcd 9393 (IB 2009) ("*RB-2 Order*"), *recon. denied*, 27 FCC Rcd 5932 (IB 2012).

³ *See* Petition to Deny or Defer of DIRECTV, LLC, File Nos. SAT-RPL-20121228-00227 & SAT-AMD-20131113-00132, filed Dec. 16, 2013.

⁴ *SES Americom, Inc.*, 29 FCC Rcd 3678, 3678, ¶ 1 (IB 2014) ("*SES-3 Deferral*").

⁵ 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, dated Sept. 21, 2012 (approving Ciel's plan to use an interim 17/24 GHz BSS satellite at 103° W.L. and revising the implementation milestones for the permanent Ciel satellite at that location).

priority over the U.S. ITU filings for these bands at the same location.⁶ Due to that priority, Ciel's operations are entitled to interference protection from any DIRECTV transmissions, and the Commission made clear that RB-2 would not receive protection from interference unless it successfully completed coordination.⁷ No such coordination has been achieved – in fact, DIRECTV did not, at any time, initiate coordination negotiations with Ciel during the more than five years since the *RB-2 Order* was issued.

As discussed in more detail below, the record justifies denial of both the RB-2 milestone extension and the RB-2 payload modification. Contrary to DIRECTV's arguments, the company's failure to meet its July 27, 2014, deadline to have RB-2 launched and operational is the result of DIRECTV's own business decisions, not a consequence of extraordinary events beyond DIRECTV's control. DIRECTV cites to a brief delay in the delivery of travelling wave tube arrays ("TWTAs"), but the facts make clear that DIRECTV simply used that delay as a pretext to switch manufacturers and accept a new construction schedule that did not comply with its license obligations. Moreover, there is no public interest rationale for granting DIRECTV's request for milestone relief. To the contrary, extending or waiving the milestone would allow DIRECTV to unilaterally override the terms of its authorization, undermining the purpose of the Commission's milestone policy.

⁶ See Comments of Ciel Satellite Limited Partnership, File Nos. SAT-LOA-19970605-00049 *et al.*, filed Aug. 1, 2008 at 2 (noting that at "103° W.L., the Canadian filings have date priority for international coordination purposes").

⁷ See *RB-2 Order*, 24 FCC Rcd at 9407, ¶ 41 ("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 assignments with other Administrations.").

DIRECTV's payload modification must be denied for failure to comply with the requirements of the Commission's rules and the terms of DIRECTV's existing authorization. DIRECTV's technical description does not take into account either interference from Ciel-6i or DIRECTV's obligation not to cause interference to Ciel-6i, and is therefore completely unrealistic. Because DIRECTV has not successfully completed coordination, its proposed technical parameters do not reflect the significant adjustments that will be needed for DIRECTV to operate on a non-harmful interference basis with respect to Ciel's higher-priority 17/24 GHz BSS network. Given these flaws, the Commission must at a minimum defer grant of operating authority for the modified RB-2 payload until DIRECTV completes coordination of the 17/24 GHz BSS frequencies with Ciel and files a new modification application to reflect the changes to RB-2's operations needed to conform to the terms of coordination.

II. UNDER COMMISSION PRECEDENT, DIRECTV'S REQUEST TO EXTEND OR WAIVE THE LAUNCH AND OPERATIONS MILESTONE MUST BE DENIED

The Commission's long-standing policy of requiring satellite licensees to adhere to construction and launch milestones is grounded in the public interest. As the International Bureau has explained, "[b]ecause it is manifestly in the public interest to ensure that licensees proceed expeditiously in completing construction of their systems and commencing service, the Commission has strictly enforced its [satellite] milestone schedules."⁸ A party seeking milestone relief must demonstrate either that the delay was due to factors over which it had no control or

⁸ *PanAmSat Licensee Corp.*, 15 FCC Rcd 18720 (IB 2000) ("*PanAmSat*") at 18722, ¶ 8. *See also New ICO Satellite Services G.P.*, 22 FCC Rcd 2229 (Sat. Div. 2007) ("*New ICO*") at 2233, ¶ 14 ("the Commission strictly enforces its milestone schedules," which "ensure prompt delivery of satellite service to the public"); *Astrolink International LLC*, 17 FCC Rcd 11267 (Sat. Div. 2002) ("*Astrolink*") at 11268-69, ¶ 5 ("Because it is in the public interest to ensure that licensees proceed expeditiously in completing construction of their systems and commencing service and are not blocking entry by other qualified service providers, the Commission has strictly enforced its milestone schedules.").

show that unique and overriding public interest concerns justify extension or waiver of the schedule.⁹ DIRECTV has not made a sufficient showing on either point. Accordingly, its request for extension or waiver of the RB-2 launch and operations milestone must be denied.

**A. DIRECTV's Business Choices, Not Circumstances
Beyond its Control, Caused DIRECTV to Miss the Milestone**

DIRECTV's claim that it had no control over the events that caused it to miss the RB-2 launch and operations milestone is invalid on its face. Instead, by DIRECTV's own account, the company responded to a brief delay in procurement of TWTAs by starting from scratch – entering into a new contract with a different manufacturer for a more complicated multiple-payload satellite under a construction schedule that ensured DIRECTV would not comply with the launch and operations milestone for RB-2.¹⁰

DIRECTV's attempt to blame launch delays¹¹ is similarly flawed, as DIRECTV's decisions slowing down production of RB-2 ensured that the payload could not be launched in time. There is no indication in the DIRECTV pleading that its launch agreement with Arianespace ever even contemplated a launch date that would have allowed DIRECTV to meet the July 27, 2014, launch and operations milestone. To the contrary, when it entered into the launch agreement, DIRECTV was already in the process of negotiating a new construction contract to return the manufacturing process to square one, so it already knew that the RB-2 payload would not be ready until after the RB-2 launch milestone had passed. Furthermore, DIRECTV deliberately evaded Commission review of its actions by waiting until days before the

⁹ *New ICO*, 22 FCC Rcd at 2233, ¶ 14. *See also* 47 C.F.R. § 25.117(c).

¹⁰ RB-2 Milestone Extension, Exhibit A at 3.

¹¹ *Id.* at 4-7.

launch and operations milestone to file its extension request. DIRECTV's actions are fatal to its request for milestone relief.

The Commission has emphasized the importance of milestone compliance but has granted extensions where “the delay is due to unforeseeable circumstances beyond the applicant’s control.”¹² This framework strikes an appropriate balance, recognizing the importance of expediting service to the public while accommodating unexpected challenges that may prevent a spacecraft’s timely completion and launch. As an experienced satellite operator, SES is very familiar with these matters and is sympathetic to the plight of licensees who face unanticipated delays in satellite construction or launch. Here, however, the record makes clear that DIRECTV’s failure to meet its launch and operations milestone for RB-2 was the entirely foreseeable result of a series of business decisions solely within the discretion of DIRECTV.

DIRECTV alleges that an obstacle to its compliance with the RB-2 milestone schedule arose in 2011, when it was advised by Space Systems/Loral (“SS/L”) that delivery of the TWTAs for RB-2 would be delayed given manufacturing issues the TWTA supplier was experiencing.¹³ The Commission has made clear that if a licensee encounters a problem that might prevent milestone compliance, it is expected to attempt to pursue a resolution that will

¹² *TerreStar Networks, Inc.*, 22 FCC Rcd 17698 (IB 2007) (“*TerreStar*”) at 17700, ¶ 6. See also *Columbia Communications Corp.*, 15 FCC Rcd 15566 (IB 2000) (“*Columbia I*”) at 15571, ¶ 11 (“extensions of the milestone schedule are granted only when delay in implementation is due to circumstances beyond the control of the licensee”).

¹³ RB-2 Milestone Extension, Exhibit A at 3.

prevent further delay¹⁴ and to promptly advise the Commission of the relevant problem.¹⁵ Yet DIRECTV did neither.

1. DIRECTV Is Responsible for the Delay in Completing RB-2 Construction

In response to the TWTA delivery date slipping “several months behind schedule,”¹⁶ DIRECTV took steps that, instead of ameliorating any delay in ultimate construction of the satellite, guaranteed additional delay. Each of these was a business decision entirely within DIRECTV’s control.

DIRECTV Decided to Switch Manufacturers for RB-2 in October 2011. DIRECTV claims that after being informed of the TWTA delays, it terminated its contract with SS/L and entered into a contract with Astrium in October 2011 “[r]ather than risk falling still further behind” in construction of RB-2.¹⁷ But this is a *non sequitur* – nothing in the record suggests that DIRECTV’s decision to switch to a different manufacturer had any connection to the TWTA issue or promised a more rapid delivery of these critical components. Nor is there any reason to believe that switching to Astrium would have sped up TWTA deliveries. All spacecraft manufacturers obtain TWTAs from the same two suppliers,¹⁸ and any delays experienced by

¹⁴ *WB Holdings I LLC*, 20 FCC Rcd 10846 (Sat. Div. 2005) (“*WB Holdings*”) at 10848, ¶ 6 (even when delay is due to circumstances beyond the licensee’s control, the Commission expects a licensee “to attempt to resolve issues that may impede its ability to meet its milestones”).

¹⁵ *Motorola, Inc.*, 17 FCC Rcd 16543 (IB 2002) (“*Motorola*”) at 16550-51, ¶ 21.

¹⁶ RB-2 Milestone Extension, Exhibit A at 3.

¹⁷ *Id.* at 3. *See also id.* at 1 (“When its manufacturer began to experience delays in procuring vital parts for the satellite, DIRECTV switched manufacturers in an effort to assure expeditious delivery of the spacecraft.”).

¹⁸ *See* Peter B. de Selding, “Component Crunch Slows Delivery of Ka-band Communications Sats,” *Space News*, Sept. 16, 2011, available at: <http://www.spacenews.com/article/component-crunch-slows-delivery-ka-band-communications-sats> (“there are only two companies deemed reliable providers [of Ka-band traveling wave tubes], L3 Communications of New York and Thales of France”).

SS/L would therefore have been experienced by Astrium as well.¹⁹ In SES’s experience, satellite manufacturers generally do not have spare TWTAs on hand. Moreover, changing manufacturers meant that Astrium was re-starting construction of the satellite bus from scratch and needed to perform a new Critical Design Review – delays that DIRECTV could have avoided if it had continued the program with SS/L. Confirmation that switching manufacturers slowed down completion is provided by the fact that DIRECTV’s RB-1 17/24 GHz BSS payload, which was built from start to finish by SS/L, was completed in December of 2013,²⁰ nine months before the anticipated completion date for RB-2.

The Commission has previously considered and rejected the claim that delays associated with a desire to reprocur licensed satellites are sufficient grounds for extending system milestones. Specifically, in a case involving AT&T, the Commission found that:

AT&T’s decision to reopen the satellite construction program does not constitute a circumstance beyond its control and does not justify a grant of additional time. Construction of the . . . satellites by [the original manufacturer] apparently had begun in conformance with the milestone dates. AT&T’s desire to reprocur a construction contract, which will consequently delay implementation, is simply an independent business judgment. Business judgments based upon economic considerations traditionally have not been considered circumstances beyond a licensee’s control and have not justified extensions of time.²¹

¹⁹ *See id.* (quoting the chief executive of Astrium regarding the Ka-band traveling wave tube production difficulties and confirming that Astrium relies on the same suppliers – L3 and Thales – as do other manufacturers).

²⁰ *See DIRECTV Enterprises, LLC*, File No. SAT-MOD-20140624-00077 (“RB-1 Launch Extension”), Narrative at 1.

²¹ *American Telephone and Telegraph Co.*, 2 FCC Rcd 4431 (1987) (“AT&T”) at 4433-34, ¶ 21 (footnotes omitted).

DIRECTV's situation here is no different than that of AT&T. DIRECTV chose to terminate its SS/L contract more than two years after receiving the RB-2 license grant, and its decision cannot be the grounds for a milestone extension.

DIRECTV Decided to Add DBS and Ka-Band FSS payloads to RB-2. DIRECTV's RB-2 license obliged it to build only a 17/24 GHz BSS satellite at 103° W.L.²² DIRECTV, however, decided to add both DBS and Ka-band FSS payloads to the spacecraft and to make the satellite capable of operating from five different orbital locations.²³ The Commission has consistently held that design changes such as the addition of frequency bands do not justify milestone extensions.²⁴ Such alterations are within a licensee's discretion, but Commission precedent makes clear that a licensee proposing to modify its spacecraft design assumes the risk if the intended modification causes it to miss its construction milestones.²⁵

²² *RB-2 Order*, 24 FCC Rcd at 9406.

²³ See *RB-2 Milestone Extension*, Exhibit A at 2 (“DIRECTV incorporated a 17/24 GHz BSS payload as part of a multi-mission, hybrid spacecraft, known as DIRECTV 15, that also includes Ka-band and Direct Broadcast Satellite payloads”); *DIRECTV Enterprises, LLC*, File No. SAT-LOA-20140825-00094 (“DIRECTV 15 Application”), Narrative at 1 n.1 (“DIRECTV 15 is a hybrid multi-band satellite”); *id.* at 3 & n.5 (DIRECTV 15 will be “capable of supporting multiple other missions, which will thereby afford DIRECTV in-orbit redundancy within its growing satellite fleet”). See also Press Release, “Astrium contracted to build DIRECTV 15 communications satellite,” Nov. 4, 2011, available at http://www.space-airbusds.com/en/press_centre/airbus-defence-and-space-contracted-to-build-directv-15-communications-satellite-.html (“DIRECTV 15 will have a payload comprising 30 high power transponders in Ku-band, 24 transponders in Ka-band, 18 transponders in Reverse Band, and will be able to operate from up to five orbital locations from 99°W to 119°W”).

²⁴ See, e.g., *PanAmSat*, 15 FCC Rcd at 18723, ¶ 10 (“modifications that PanAmSat voluntarily proposed to its system” seeking to add inter-satellite link frequencies could not justify failure to comply with applicable milestones); *Columbia I*, 15 FCC Rcd at 15571, ¶ 12 (seeking to add Ku-band authority cannot justify a milestone extension because the decision to propose a license modification is “wholly within the control of the licensee”).

²⁵ *PanAmSat*, 15 FCC Rcd at 18723, ¶ 11 (because PanAmSat chose not to comply with its milestones, there is “no good cause for extending, suspending or otherwise waiving PanAmSat’s milestone schedule”).

DIRECTV presumably is aware of this precedent and does not explicitly attempt to justify its extension request based on the major changes to the satellite's design. However, the Commission must independently determine whether DIRECTV's decision to add frequency bands and orbital location flexibility in fact delayed RB-2's completion. The record suggests that it did. At a minimum, DIRECTV's decision to persist with hybrid designs for both DIRECTV 15/RB-2 and DIRECTV 14/RB-1 after being advised by SS/L of TWTA delivery delays in 2011 unquestionably delayed satellite construction, since having multiple Ka-band payloads necessarily meant both satellites needed more Ka-band TWTAs.

Tellingly, SS/L was able to complete construction of the hybrid DIRECTV 14/RB-1 by December 2013, notwithstanding the TWTA supply problems in 2011.²⁶ This fact suggests that had DIRECTV built RB-1 and RB-2 as stand-alone 17/24 GHz BSS satellites, enough TWTAs could have been delivered in time to allow it to meet the construction milestones under both licenses. Under clear Commission precedent, DIRECTV's choice to combine RB-2 with other payloads and increase its orbital location flexibility was a voluntary business decision that does not justify milestone relief.

DIRECTV Agreed to a Non-Compliant Construction Schedule for RB-2. DIRECTV admits that when it changed manufacturers in October 2011, it accepted a 36-month contract schedule that made it impossible to comply with the July 2014 launch and operations milestone “unless the parties could accelerate production along the way.”²⁷ In other words, more than a year after its deadline for entering into a binding RB-2 construction contract had passed, DIRECTV terminated a contract with SS/L that presumably included a schedule that was compliant with the RB-2 milestones and replaced it with one that was not. If DIRECTV had

²⁶ RB-1 Launch Extension, Narrative at 1.

²⁷ RB-2 Milestone Extension, Exhibit A at 3.

submitted the Astrium agreement in an attempt to satisfy its contract execution milestone, Commission precedent would have required that it be rejected, since one element of a “non-contingent” satellite construction contract is that the contract must provide for construction under terms that are consistent with the applicable license.²⁸ The result should not be different just because the licensee in this case decided to make this change in mid-construction.

DIRECTV’s attempts to minimize the extent of the Astrium contract’s noncompliance with the RB-2 milestones are both misleading and unavailing. DIRECTV argues that under the new construction schedule “completion of the satellite will miss the July 2014 launch deadline by approximately 45 days.”²⁹ But the 45-day figure is based on an apples-to-oranges comparison of the construction completion date with the launch and operations milestone date. Following completion of construction, the satellite must be shipped to the launch site, mated with the launch vehicle, launched, tested, and placed at its final orbital location before it is “operational” for purposes of the milestone. These steps typically take at least two months, so the construction delay DIRECTV agreed to in the Astrium contract means that service to the public using RB-2 could not have possibly begun until a minimum of three and a half to four months after the required launch and operations date.

Moreover, even assuming that the delay for which DIRECTV now seeks authorization could be fairly characterized as brief, that factor is irrelevant under Commission precedent. The Commission has explicitly rejected the “assumption that the relevant precedent allows milestone extensions for business decisions within the control of the licensee provided that the licensee

²⁸ See, e.g., *Astrolink*, 17 FCC Rcd at 11268, ¶ 4 (to comply with the initial milestone, a licensee must have “an effective non-contingent contract demonstrating that it will be able to complete construction of and launch the satellite by the required milestone date”).

²⁹ RB-2 Milestone Extension, Exhibit A at 4.

requests a short extension of time.”³⁰ The Commission does “not treat requests for ‘short’ extensions any differently than requests for ‘longer’ extensions.”³¹

SES is not second-guessing the reasonableness of these DIRECTV business decisions – DIRECTV may well have had very good reasons to change manufacturers and to consolidate payloads on a single spacecraft. But “legitimate and arguably prudent business decisions . . . cannot justify extensions of required system implementation milestones.”³² Under the Commission’s milestone policies, such decisions are fatal to DIRECTV’s claim that the RB-2 construction delays resulted from factors beyond DIRECTV’s control.

2. Construction Delays Ensured that RB-2 Could Not Launch on Time

The launch-related factors cited by DIRECTV³³ also cannot justify the requested milestone relief. SES recognizes that DIRECTV’s difficulties in securing a launch window before the first quarter of 2015 are the kinds of delays that tend to be beyond a licensee’s control. If DIRECTV were seeking only a launch extension, SES would not object.

The record here, however, shows that the series of DIRECTV choices described above made it impossible for RB-2 to be ready for launch in a timely fashion. Given these business decisions, even if DIRECTV had faced none of the difficulties it described in obtaining a launch window, DIRECTV would have missed the launch and operations milestone due to delayed

³⁰ *Columbia Communications Corp.*, 15 FCC Rcd 16496 (IB 2000) (“*Columbia II*”) at 16501, ¶ 15.

³¹ *Id.* at 16502, ¶ 15.

³² *AT&T*, 2 FCC Rcd at 4435, ¶ 28.

³³ RB-2 Milestone Extension, Exhibit A at 4-7.

construction of RB-2. As a result, the primary cause for delay rests squarely on DIRECTV's shoulders.³⁴

DIRECTV may even have voluntarily accepted a launch agreement that did not comply with the RB-2 milestone, as it did with the Astrium construction contract. DIRECTV claims that it was diligent in entering into a launch services contract for RB-2.³⁵ However, at the time the launch contract was signed, DIRECTV was already reprocurring the construction of RB-2,³⁶ ensuring that construction of RB-2 would be delayed. Thus, it seems unlikely that DIRECTV's launch contract ever contemplated a launch date that would have met the July 27, 2014 milestone for RB-2 to be in orbit and operational – certainly such a date would not have been realistic under the facts. Accordingly, DIRECTV's timely execution of a launch agreement is simply irrelevant because DIRECTV's actions to delay construction completion had already ensured that launch could not occur in time to meet the milestone.

3. DIRECTV Unreasonably Delayed Seeking Milestone Relief

In milestone cases, the Commission has consistently been critical of licensees who failed to timely notify the Commission of claimed obstacles to compliance with the specified construction and launch schedule.³⁷ DIRECTV clearly knew in October of 2011 that RB-2 was

³⁴ See *AT&T*, 2 FCC Rcd at 4434, ¶ 25 (rejecting AT&T's reliance on an uncertain launch environment to justify an extension, noting that "we cannot see how the launch situation can be responsible for AT&T's decision to reprocur the satellites").

³⁵ RB-2 Milestone Extension, Exhibit A at 1.

³⁶ See Press Release, "Arianespace to launch up to four satellites for DIRECTV," Sept. 13, 2011, available at <http://www.arianespace.com/news-press-release/2011/9-13-2011-directv.asp> ("Arianespace Press Release") (noting that the "DIRECTV-15 satellite is in the final stages of contract award").

³⁷ See *Motorola*, 17 FCC Rcd at 16550-51, ¶ 21 (observing that the "Applicants failed to apprise [the Commission] in a diligent manner . . . of the problem that allegedly thwarted timely compliance with the milestone requirement"); *PanAmSat*, 15 FCC Rcd at 18723, ¶ 11 (PanAmSat "filed its extension request just days before the expiration of its initial milestone");

not going to be completed in time (absent heroic efforts on the part of the manufacturer) to satisfy DIRECTV's obligation to have the payload launched and operational by the required July 27, 2014 date. Its decision to wait until "just days before the expiration" of the applicable milestone³⁸ to request an extension suggests that DIRECTV was intentionally attempting to evade Commission review and further undercuts DIRECTV's request for extension or waiver of the launch and operations milestone.

DIRECTV may have "informed" the Commission that construction of RB-2 would not be completed in time to meet the applicable milestone in July 2012 when DIRECTV submitted a confidential showing for its construction commencement milestone.³⁹ If so, that is not readily apparent from the publicly available version of DIRECTV's submission. But in any event, DIRECTV clearly did not request or justify milestone relief at that point. Thus, even if DIRECTV notified the Commission in 2012 that it would miss the RB-2 launch and operations milestone, because DIRECTV failed to request extension or waiver of the milestone at that time, the Commission should have then declared DIRECTV's license null and void as required by the terms of the *RB-2 Order*.⁴⁰

Loral Space & Communications Corp., 16 FCC Rcd 11044 (IB 2001) ("*Loral*") at 11047, ¶ 7 (Loral waited two years after consummating its merger with Orion before requesting milestone extensions for the Orion spacecraft).

³⁸ *PanAmSat*, 15 FCC Rcd at 18723, ¶ 11. Specifically, DIRECTV filed its extension request 33 days before the launch and operations milestone date.

³⁹ See Letter from William M. Wiltshire to Marlene H. Dortch submitted July 27, 2012 in File Nos. SAT-LOA-20060908-00100, SAT-AMD-20080114-00014, and SAT-AMD-20080321-00077.

⁴⁰ See *RB-2 Order*, 24 FCC Rcd at 9406, ¶ 37.

B. Extending or Waiving the Milestone Is Contrary to the Public Interest

There are no “unique and overriding public interest concerns”⁴¹ in this case to justify a milestone extension or waiver. Instead, the only interests at stake are those of DIRECTV, which has no one but itself to blame for the delayed completion of the RB-2 payload. Furthermore, extending or waiving the milestone would fundamentally undermine the Commission’s milestone enforcement efforts by allowing DIRECTV to effectively set its own schedule for launching and commencing operations of RB-2.

DIRECTV asserts that its commitment to construction and launch of RB-2 – as indicated by the substantial payments the company has made pursuant to the applicable contracts – is sufficient to demonstrate a public interest rationale for the requested milestone relief, relying on the *TerreStar* decision.⁴² DIRECTV, however, ignores significant differences between the facts here and those in *TerreStar* that are directly relevant to the public interest rationale underlying that ruling.

Most importantly, in *TerreStar* the licensee was only seeking extension of an intermediate milestone and did not propose any delay in the required date by which its full system was required to be operational.⁴³ The Satellite Division specifically cited this factor in concluding that there were “unique and overriding public interest considerations that warrant an extension of time,” emphasizing that the requested launch milestone extension “will not prevent

⁴¹ 47 C.F.R. § 25.117(c).

⁴² RB-2 Milestone Extension, Exhibit A at 9, *citing TerreStar*.

⁴³ *TerreStar*, 22 FCC Rcd at 17699, ¶ 5 (Terrestrial seeks a launch milestone change but “does not request any change to the November 2008 deadline for certifying that its system is operational”).

TerreStar from meeting the November 2008 milestone deadline for commencing operation.”⁴⁴

Thus, grant of TerreStar’s request did not compromise the fundamental purpose of the milestone framework – ensuring timely availability of service to the public. In contrast, DIRECTV is seeking Commission sanction for a nine-month delay in service commencement – a delay that was the foreseeable result of business decisions that DIRECTV made nearly three years ago.

Moreover, in *TerreStar* the Satellite Division found that the delays the licensee had experienced were not the result of post-CDR design changes.⁴⁵ The opposite is true here. At a minimum, DIRECTV’s decision to change manufacturers and accept a new 36-month construction cycle after CDR had been completed very clearly ensured that RB-2 could not be completed and launched by the required milestone date. Furthermore, although it is unclear from the public documentation exactly when DIRECTV decided to add the Ka-band FSS and DBS payloads to the RB-2 satellite design, there are indications that this change was also made after CDR under the SS/L contract was completed in July 2011.⁴⁶ Thus, DIRECTV cannot rely on *TerreStar* as support for milestone relief given DIRECTV’s voluntary decisions to make significant post-CDR changes.

⁴⁴ *Id.*, 22 FCC Rcd at 17702, ¶ 10. Similarly, in *Astrolink*, the Satellite Division cited the company’s assurance that it “was positioned to complete construction and launch its spacecraft by . . . the required deadline” in deciding to waive noncompliance with the construction commencement milestone. *Astrolink*, 17 FCC Rcd at 11268, ¶ 4.

⁴⁵ *TerreStar*, 22 FCC Rcd at 17700 n.16 (“The record shows that . . . changes to the satellite design were made at or before the November 2004 CDR, and that none of the delays encountered in satellite manufacturing were a result of design changes made after that point.”).

⁴⁶ Specifically, the September 2011 Arianespace Press Release regarding the launch agreement for DIRECTV 15 does not refer to the SS/L construction contract at all, even though it appears to have still been in effect at that time. Instead, the press release characterizes DIRECTV 15 as being “in the final stages of contract award.” That suggests that the SS/L contract was only for the RB-2 payload, not for the multi-band DIRECTV 15 spacecraft.

Under the facts here, allowing DIRECTV to circumvent Commission milestones by simply keeping up its contractual payments while putting off requesting an extension until the last minute would conflict with the fundamental public interest rationale of the milestone framework. The Commission would be conceding to its licensee the role of establishing the schedule pursuant to which new satellites are built and launched. The precedent established would allow any future satellite licensee to effectively buy a milestone extension – as long as the licensee had paid for the bulk of construction and launch costs, it could claim that any delay in service to the public, whatever the cause, was justified.

Ideally, as soon as the Commission discovered that DIRECTV had cancelled the SS/L contract and replaced it with one that did not conform to the milestone schedule, the Commission should have taken immediate steps to declare the RB-2 license null and void. At that point, DIRECTV's dates for both contract execution and CDR had passed, and the company no longer was in compliance with either milestone.⁴⁷ The Commission cannot now adopt an unannounced “wait-and-see” approach to milestone compliance. This would be inconsistent with the underlying policy of milestone rules, which is to prevent the “warehousing of scarce spectrum and orbital resources.”⁴⁸

Importantly, there is no hardship to DIRECTV here that would justify an extension or a waiver. Of course, nothing would prevent DIRECTV from reapplying for the 17/24 GHz BSS spectrum following revocation of the RB-2 license. But even if DIRECTV did not successfully

⁴⁷ Compare *Astrolink*, 17 FCC Rcd at 11269, ¶ 5 (finding that because Astrolink's initial agreement for construction of its satellites had been terminated, Astrolink had failed to comply with the milestone requiring execution of a non-contingent contract).

⁴⁸ *Morning Star Satellite Co., L.L.C.*, 16 FCC Rcd 11550 (2001) (“*Morning Star*”) at 11553, ¶ 8. See also *id.* at 11551, ¶ 3 (“Milestones are designed to ensure that licensees are proceeding with construction and will launch their satellites in a timely manner and that orbit-spectrum is not being held by licensees unable or unwilling to proceed with their plans.”)

reapply for these frequencies, cancellation of the RB-2 license in this case would not strand DIRECTV's investment. Assuming that its DIRECTV 15 Application is ultimately granted, the company can still launch and operate DIRECTV 15 as a Ka-band FSS satellite at 103° W.L. that will also serve as the intended in-orbit backup for other DIRECTV satellites in the Ka-band FSS, DBS and 17/24 GHz BSS frequencies at multiple orbital locations.

The only consequence of revocation of the RB-2 license for DIRECTV is that it would not be able to operate the 17/24 GHz BSS payload on DIRECTV 15 at 103° W.L. But the inability to operate on those frequencies at 103° W.L. is a risk that DIRECTV had already assumed when it proceeded with RB-2 construction knowing that a Canadian-licensed satellite with higher ITU priority was being planned (and has now been deployed) at 103° W.L.⁴⁹ Furthermore, as discussed in more detail below, because DIRECTV has failed to meet its obligations under ITU procedures and the terms of the RB-2 license to coordinate its planned operations with Ciel, DIRECTV cannot activate the RB-2 payload in any event because doing so would create unacceptable interference to the higher-priority Ciel-6i network.

In sum, the Commission should not bend or break its rules to relieve DIRECTV of the risk that it assumed when it voluntarily changed the RB-2 satellite design, switched satellite manufacturers, and entered into a contract to build a satellite beyond its launch and operations milestone. Nothing in the circumstances of this case warrants a result other than cancellation of DIRECTV's RB-2 license.

⁴⁹ See, e.g., *Spectrum Five LLC*, 26 FCC Rcd 104488 (IB 2011) ("*Spectrum Five*") at 10453, ¶ 15 ("the duty to coordinate with potentially affected satellite operators, and the risks inherent in this process, are assumed upon acceptance of the grant").

III. THE COMMISSION SHOULD DENY OR DEFER OPERATING AUTHORITY FOR DIRECTV'S 17/24 GHz PAYLOAD

If the Commission decides not to cancel the RB-2 license, it should deny DIRECTV's payload modification application or, at a minimum, withhold operating authority for the RB-2 payload until DIRECTV has completed coordination with Ciel. Such a result is necessary in this case to ensure that the U.S.-licensed RB-2 payload does not cause harmful interference to the higher priority Canadian satellite at the same location.

As the Commission has explained in the context of 17/24 GHz BSS, “[t]he United States is under a treaty obligation . . . to adhere to the ITU procedures regarding coordination and notification of satellite networks licensed by the United States.”⁵⁰ Those procedures “are intended to ensure that the operations of one country’s space stations *do not cause harmful interference* to the operations of another country’s radiocommunication network frequency assignments.”⁵¹ Under the ITU’s Radio Regulations, “it is the responsibility of Administrations with lower ITU priority to coordinate their networks with the networks of Administrations with higher priority.”⁵² These coordination obligations are reflected in the standard international coordination condition that the Commission inserted in the RB-2 license.⁵³ In cases where the U.S. does not have international priority and coordination is not completed, U.S. licensees can at

⁵⁰ *The Establishment of Policies and Service Rules 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 (2010) (“17/24 GHz Reconsideration Order”) at 15722, ¶ 8.

⁵¹ *Id.* (emphasis added).

⁵² *Id.* at 15724, ¶ 10, quoting *Amendment of the Commission’s Space Station Licensing Rules and Policies*, First Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 10760 (2003) (“*Space Station Reform Order*”) at 10870, ¶ 296.

⁵³ *See RB-2 Order*, 24 FCC Rcd at 9407, ¶ 41.

best operate on an unprotected basis and must protect the higher priority network from harmful interference.⁵⁴

In this case, DIRECTV RB-2 will be operating under a U.S. satellite network filing that is lower in ITU priority than the Canadian ITU filing pursuant to which Ciel-6i is operating and with which coordination has not yet been completed. Accordingly, Ciel-6i is entitled to protection from interference from RB-2 until such time as a coordination agreement is reached. Given the proposed co-frequency and co-coverage operations of RB-2 and Ciel-6i, there can be no question that harmful interference will occur if RB-2 were to commence operations at 103° W.L.⁵⁵ SES understands that DISH Operating L.L.C., which has leased the 17/24 GHz BSS capacity on Ciel-6i, is submitting calculations showing that a representative 36 MHz carrier would have a negative margin of 17.6 dB when interference from the proposed RB-2 operations is taken into account. Thus, to avoid the demonstrated harmful interference that will occur to a higher priority network, the Commission must withhold or otherwise condition 17/24 GHz BSS operating authority on the completion of coordination.

DIRECTV ignores this issue completely by omitting any analysis of how RB-2 could operate at 102.75° W.L. without causing harmful interference into Ciel-6i. As a result, the link budgets and interference analyses DIRECTV has submitted are purely theoretical and do not

⁵⁴ See *17/24 GHz Reconsideration Order*, 25 FCC Rcd at 15724, ¶ 10 (a “U.S. licensee may not be able to operate its system if the coordination cannot be appropriately completed”), quoting *Space Station Reform Order*, 18 FCC Rcd at 10800, ¶ 96.

⁵⁵ DIRECTV has acknowledged the difficulty of reaching accommodation with a higher-priority network at the same nominal orbital location, citing coordination issues in its letter relinquishing its license for the RB-4 17/24 GHz BSS satellite. See File Nos. SAT-LOA-19970605-00050, SAT-AMD-20051118-00225, SAT-AMD-20080114-00016, and SAT-AMD-20080321-00079 (Call Sign S2243), Letter of William M. Wiltshire, Counsel for DIRECTV Enterprises, LLC, to Marlene H. Dortch, Secretary, FCC, dated July 27, 2011 at 1 (surrendering license based on the conclusion that “claims of other administrations with superior priority . . . are increasingly likely to result in actual satellites with priority over DIRECTV either at or close to its assigned position.”).

comply with the Commission's rules, which require applicants to provide a concrete proposal with detailed information regarding the proposed system's link performance analysis and the network's ability to operate successfully in the interference environment.⁵⁶ This noncompliance is reason enough to deny the RB-2 Payload Modification.

Nor does DIRECTV acknowledge its obligation to make any necessary modifications to its planned operational parameters in order to successfully coordinate with Ciel. As noted above, DIRECTV never even initiated coordination discussions during the five-year term of its RB-2 license, and negotiations started by Ciel have not produced an agreement. DIRECTV's blatant disregard of its duties in this regard is particularly puzzling given its indignant reaction to other parties' failure to initiate required coordination with higher-priority DIRECTV satellites. For example, in a filing regarding a Spectrum Five request for U.S. market access for a DBS satellite, DIRECTV criticized Spectrum Five for having failed "to so much as call DIRECTV to initiate [coordination] discussions in more than seven months" since Spectrum Five's sponsoring administration had submitted an ITU filing for the relevant orbital position.⁵⁷ Yet here, DIRECTV *never* initiated coordination over a span of *five years*, and now seeks authority to operate in a manner that would clearly interfere with Ciel-6i. DIRECTV also argued that the potential measures put forth by Spectrum Five to ameliorate interference to DIRECTV were infeasible.⁵⁸ Yet here, DIRECTV has failed to provide any indication of how it would successfully operate RB-2 while protecting Ciel-6i from harmful interference.

⁵⁶ See 47 C.F.R. §§ 25.114(b); 25.114(d)(4); & 25.140.

⁵⁷ Reply of DIRECTV Enterprises, LLC, File Nos. SAT-LOI-20050312-00062 and -00063, filed June 8, 2005, at 8.

⁵⁸ *Id.* at 7-8.

Because harmful interference will certainly occur in this case if RB-2 were allowed to operate as proposed at 103° W.L., the Commission should deny operating authority for that payload or at least defer action until DIRECTV has completed coordination with Ciel. This is required under the United States' international obligation to "ensure that the operations of [U.S.] space stations do not cause harmful interference to the operations of another country's radiocommunication network frequency assignments."⁵⁹

Such withholding of authority is also consistent with the Commission's treatment of SES-3. In the past the Commission has rejected requests that it defer grant of operating authority in a frequency band pending completion of coordination of that band.⁶⁰ Recently, however, the Commission departed from that precedent with respect to SES-3. Specifically, the Commission deferred acting on SES Americom's application for grant of replacement C- and Ku-band authority on SES-3 at 103° W.L. in order "to provide a period" of time for the 17/24 GHz BSS frequencies to be coordinated.⁶¹ SES and Ciel disagree with the Commission's decision to defer grant of full C- and Ku-band authority in the case of SES-3. But given the Commission's decision to depart from its precedent and withhold grant of operating authority for SES-3 pending coordination with DIRECTV, there is no basis for applying a different standard to DIRECTV's RB-2 payload, especially when it will certainly cause harmful interference to a

⁵⁹ *17/24 GHz Reconsideration Order*, 25 FCC Rcd at 15722, ¶ 8.

⁶⁰ For example, DIRECTV was authorized to operate the interim RB-2A 17/24 GHz BSS payload at the nominal 103° W.L. orbital location even though it had not even commenced, much less completed, coordination in the 17/24 GHz BSS frequencies with Ciel. *See DIRECTV Enterprises, LLC*, File No. SAT-LOA-20090807-00085, grant-stamped Jan. 8, 2010. *See also SES Satellites (Gibraltar) Limited*, File Nos. SAT-PPL-20101103-00230 & SAT-APL-20110120-00015, grant-stamped Oct. 13, 2011 (adding NSS-703 to the Permitted List and denying a request that authority be conditioned on the completion of coordination); *Loral Spacecom*, 18 FCC Rcd 16374 (Sat. Div. 2003) (adding Telstar 13 to the Permitted List despite the fact that coordination with a higher priority filing had not been completed).

⁶¹ *See SES-3 Deferral*, 29 FCC Rcd at 3678, ¶ 1.

higher priority Canadian network entitled to interference protection. Accordingly, unless the Commission returns to its traditional interpretation of coordination requirements and grants immediate operating authority for SES-3, it must withhold operating authority for RB-2 pending coordination with Ciel.

IV. CONCLUSION

For the foregoing reasons, the DIRECTV requests for extension of the RB-2 milestones and modification to the payload's parameters are contrary to Commission precedent and to the public interest and must be denied.

Respectfully submitted,

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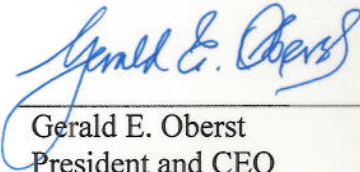
Dated: September 2, 2014

Ciel Satellite Limited Partnership

/s/ Scott Gibson
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CANADA

AFFIDAVIT

I, Gerald E. Oberst, hereby declare under penalty of perjury that I am President and CEO of SES Americom, Inc. ("SES Americom") and that I have reviewed the foregoing Petition and that all the factual statements therein relating to SES Americom are true and correct to the best of my knowledge, information, and belief.



Gerald E. Oberst
President and CEO
SES Americom, Inc.

Dated: September 2, 2014

AFFIDAVIT

I, Michael Bernard Haughian, hereby declare under penalty of perjury that I am Managing Director of Ciel Satellite Limited Partnership ("Ciel") and that I have reviewed the foregoing Petition and that all the factual statements therein relating to Ciel are true and correct to the best of my knowledge, information, and belief.



Michael Bernard Haughian
Managing Director
Ciel Satellite Limited Partnership

Dated: September 2, 2014

CERTIFICATE OF SERVICE

I hereby certify that on this 2nd day of September, 2014, a true copy of the foregoing “Petition to Deny of SES Americom, Inc. and Ciel Satellite Limited Partnership” is being sent by first class, U.S. Mail, postage paid, to the following:

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