

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Intelsat License LLC)	File No. SAT-MOD-20140829-00097
)	
Application to Modify Authorization for)	Call Sign: S2704
Intelsat 5)	
)	

REPLY OF ABS GLOBAL, LTD.

ABS Global, Ltd. (“ABS”) hereby replies to the Response of Intelsat License LLC (the “Intelsat Opposition”),¹ opposing ABS’ Petition to Deny or Defer (the “Petition”)² the above-referenced application (the “Application”) of Intelsat License LLC (“Intelsat”). The Application seeks authority to relocate the Intelsat 5 satellite from the 50.15° E.L. orbital location to the 157.0° E.L. orbital location and to operate the satellite at 157.0° E.L.³ The Intelsat Opposition was filed on November 24, 2014.⁴

The Intelsat Opposition does not address the arguments and interference concerns raised in the Petition. Specifically, Intelsat continues to exhibit a fundamental misunderstanding of the rules of the International Telecommunication Union (“ITU”) regarding the obligation of an ITU-notified system to coordinate with more junior space networks. Furthermore, Intelsat once again fails to demonstrate how Intelsat 706 is “technically equivalent” to

¹ Response of Intelsat License LLC, File No. SAT-MOD-20140829-00097 (filed Nov. 24, 2014) (“Intelsat Opposition”).

² Petition to Deny or Defer of ABS Global, Ltd., File No. SAT-MOD-20140829-00097 (filed Nov. 13, 2014) (“Petition”).

³ *Application of Intelsat License LLC to Modify Authorization for Intelsat 5*, File No. SAT-MOD-20140829-00097 (filed Aug. 29, 2014) (“Application”).

⁴ See Intelsat Opposition.

Intelsat 5 for the purposes of Section 25.140(a) of the Commission’s Rules.⁵

Lastly, Intelsat’s assertions regarding the Intelsat 5 link budgets are inconsistent with its profession that it is coordinating in “good faith” with ABS.⁶

Intelsat claims that ABS is “attempt[ing] to minimize [the] impact [of Intelsat’s ITU priority] by treating Intelsat’s ITU filing as though it is still at the coordination stage.”⁷ This claim is both untrue and, under the ITU Radio Regulations, wholly irrelevant. Under the ITU Radio Regulations, the operator of a space network, irrespective of its filing status – whether in the coordination stage, in the notification stage, or in the Master Register – is expected and required to coordinate in good faith with other space networks, regardless of filing date.⁸

Nowhere in the Petition, or in ABS’s previous comments to the Application, has ABS stated or implied the “straw man” argument that Intelsat claims ABS has made, *i.e.*, that ABS is not prepared to protect Intelsat’s existing services.⁹ However, Intelsat, by virtue of its notified status, believes that it can willfully deny interference protection to the planned services of other satellite operators. As noted in the Petition, this attempt by Intelsat to use a senior ITU filing to manipulate the ITU Radio Regulations and the Commission’s Rules, with the objective of dominating a smaller operator with junior ITU filings, runs

⁵ 47 C.F.R. § 25.140(a).

⁶ See Intelsat Opposition at 5.

⁷ *Id.* at 3.

⁸ See ITU Rules of Procedure for No. 9.6 of the ITU Radio Regulations (“no administration obtains any particular priority as a result of being the first to start either the advance publication phase . . . or the request for coordination procedure”).

⁹ See Intelsat Opposition at 3.

contrary to the primary objective of both the ITU's Radio Regulations and the Commission's Rules, which is to ensure the efficient use of scarce radiofrequency spectrum.

The Intelsat Opposition also conflates the ITU Radio Regulations and the FCC Rules, which are two separate processes. The latter do not contain any statement about relative ITU priority. Instead, the FCC simply expects that its applicants and licensees will coordinate their satellite systems with adjacent satellite operators.¹⁰

As for Intelsat's technical equivalence argument, Intelsat's claim that "[t]he FCC's rules do not require Intelsat to give adjacent non-U.S.-licensed operators with lower ITU priority more interference protection when replacing technically equivalent satellites,"¹¹ even though incorrect, implicitly concedes that Intelsat must provide interference protection to "non-U.S.-licensed operators with lower ITU priority" in certain cases. Apparently, according to Intelsat, these cases include where Intelsat is replacing satellites that are not technically equivalent, such as Intelsat is trying to do here with Intelsat 5 and Intelsat 706.

As noted in the Petition,¹² the Commission's Rules carve out no exception from its coordination requirements for "technically equivalent" satellites.¹³ In any event, Intelsat 5 is not technically equivalent to Intelsat 706 from a coverage

¹⁰ See 47 C.F.R. § 25.140(a), which states that Intelsat must "demonstrate the compatibility of [its] proposed system with respect to authorized space stations within 2 degrees of any proposed satellite point of communication."

¹¹ Intelsat Opposition at 4.

¹² Petition at 5-6.

¹³ See 47 C.F.R. § 25.140(a); Petition at 6.

standpoint. For example, in the downlink frequency band of 3700 – 4000 MHz (where there is frequency overlap between ABS-6 and Intelsat 5), Intelsat 706 can utilize Hemi and Zone beams that generally provide service to the eastern and western portions of the visible Earth, whereas Intelsat 5 coverage is generally in the middle (or the gap area) of the Intelsat 706 beams.

Furthermore, there is a substantial difference in the maximum EIRP density of Intelsat 706 and Intelsat 5. For example, if one considers a single wideband carrier being transmitted at saturation through the transponder of Intelsat 706 and that of Intelsat 5, one arrives at the beam peak EIRP density levels noted in Annex A. In the 3700 – 4000 MHz, where there is frequency overlap between ABS-6 and Intelsat 5, Intelsat 706 only utilizes the 77 MHz and 72 MHz wide transponders. As shown in Annex A, for the 77 MHz and 72 MHz transponders, the maximum beam peak EIRP density of the Intelsat 706 beams range from -38.3 to -41.3 dBW/Hz. However, for Intelsat 5 the beam peak EIRP density ranges from -34 to -34.6 dBW/Hz. Thus, Intelsat 5 introduces 4.3 dB (or 2.7 times) to 7.4 dB (or 5.5 times) of additional interference into other adjacent, co-frequency satellites when compared against the operation of Intelsat 706. In light of the foregoing, Intelsat 5 cannot possibly be considered the “technical equivalent” of Intelsat 706.

The Intelsat Opposition is similarly misleading with respect to its claims that Intelsat 5’s link budgets are “based on current customer requirements, and consistent with Intelsat’s proposal to ABS following the last coordination meeting in May of 2014.”¹⁴ Intelsat’s link budgets assume an operating level for

¹⁴ Intelsat Opposition at 5.

ABS that was proposed by Intelsat but was not agreed to by ABS. It is wholly inappropriate for Intelsat to show the impact into Intelsat 5 from ABS-6 based upon an operating level that has not been agreed to by both parties, and to seek to unilaterally impose such an operation for ABS-6. Operation at such low EIRP density levels would result in ABS' having to use large receiving antennas, which would provide a commercial advantage to Intelsat as well as other satellite operators.

Moreover, as previously noted in the Petition, Intelsat clearly indicated in the Intelsat 706 link budgets that it was willing to accept an interfering EIRP density level of -32 dBW/Hz from an adjacent co-frequency satellite located at 157E.¹⁵ In view of Intelsat's claim that, by replacing Intelsat 706 with Intelsat 5, it is providing continuity of service to its existing customers, there is no reason for Intelsat not to be able to accept the same level of interference for Intelsat 5. Unfortunately, with respect to Intelsat 5, Intelsat has arbitrarily assumed an interfering EIRP density level from an adjacent satellite located at 157° E.L. (*i.e.*, ABS-6) that is 10 times (or 10 dB) lower than what it had previously claimed (in its Intelsat 706 filing) it could accept – irrespective of the fact that such a low EIRP density level is a severely low and uncompetitive operating

¹⁵ Petition at 7. *See* Intelsat Application, File No. SAT-MOD-20121026-00188 (filed Oct. 26, 2012), Ex. 5; Application, Ex. 4.

level at C-band.¹⁶ Intelsat's actions highlighted above contradict the notion that Intelsat has been coordinating in "good faith" with ABS.¹⁷

Lastly, Intelsat's claim that the Yahsat precedent is "wholly misplaced" due to Yahsat's ITU priority over the Intelsat ITU filing in that proceeding is also misguided. Yahsat, while noting the fact of its ITU priority, did not consider its ITU priority to be the determining factor in that case. In fact, Yahsat argued that it was the Commission's long-standing precedent to require coordination "in situations . . . where the proposed operations appear incompatible with pre-existing systems operating in accordance with ITU Rules and Regulations."¹⁸

Notably, the International Bureau agreed with this assertion, and in its order instructing Intelsat to coordinate with Yahsat did not mention ITU priority at all; instead the Bureau focused on Yahsat's claim that Intelsat's operations at the relevant U.S.-filed orbital slot "will result in harmful interference to space stations operating, or soon-to-be operating . . . at nearby orbital locations."¹⁹

¹⁶ Additionally, Intelsat has failed to comment as to why ABS-6 should continue to operate at previously coordinated levels in those Ku-band frequencies where there is no overlap between Intelsat 5 and ABS-6.

¹⁷ As noted in the Petition, at 4 n.8, Intelsat's statement that it is working in good faith to reach a mutually satisfactory coordination with ABS at the 157° E.L. and 159° E.L. orbital locations may further be questioned because of its insistence on maintaining operational constraints on ABS at 159° E.L. in non-overlapping frequency bands (Ku-band and extended C-band). Intelsat could show good faith by agreeing with ABS on the non-applicability of previously discussed operator-to-operator constraints on operations in these latter two bands.

¹⁸ Yahsat Response to Surreply at 4, File Nos. SAT-MOD-20110420-00073, SAT-STA-20110314-00053, SAT-STA-20110727-00137 (filed Aug. 29, 2011) ("Yahsat Response to Surreply"). *See also Loral Orion Services*, 14 FCC Rcd 17665 (1999) (precluding commercial operations pending completion of coordination with adjacent operators).

¹⁹ International Bureau Attachment to Grant, Intelsat Request for Further Extension of Special Temporary Authority for Galaxy 26, File No. SAT-STA-20120125-00012 (stamp grant, Feb. 3, 2012), at 1 n.1.

Thus, the Yahsat precedent is indeed applicable to this proceeding, as it establishes a requirement for coordination in situations where proposed operations, such as those planned for ABS-6, are subject to potential harmful interference from U.S.-filed orbital slots, irrespective of ITU priority. Interestingly, in the Yahsat proceeding Intelsat argued to the Commission that it should not be required to coordinate with Yahsat because it would grant “excessive power” under the Commission’s rules to operators with ITU priority.²⁰ However, in this case, Intelsat appears to believe that, due to its ITU priority, it has the “excessive power” to refuse to accommodate the proposed operations of ABS-6 in direct contravention of established Commission precedent.

CONCLUSION

For the foregoing reasons, ABS continues to respectfully urge the Commission to defer action on the Application to the extent that it requests authority for Intelsat to engage in non-TT&C transmissions in the C-band (and specifically, in the frequency bands 5925-6025 MHz and 3700-4000 MHz) using Intelsat 5 at 157° E.L. until such time as ABS and Intelsat jointly inform the Commission that they have reached a mutually satisfactory coordination agreement regarding the operations of the Intelsat 5 and ABS-6 satellites.

²⁰ Intelsat Request to File Surreply and Surreply at 2, File Nos. SAT-MOD-20110420-00073, SAT-STA-20110314-00053, SAT-STA-20110727-00137 (filed Aug. 3, 2011); Yahsat Response to Surreply at 4.

Respectfully submitted,

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December 1, 2014

CERTIFICATE OF SERVICE

I, Arlene Kahng, hereby certify that on this 1st day of December, 2014, I caused to be served a true copy of the foregoing “Reply of ABS Global, Ltd.,” by electronic mail upon the following:

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ANNEX A

	Intelsat 706		Intelsat 5
	77 MHz	72 MHz	36 MHz
East Hemi Beam	-39.3	-39.0	-
West Hemi Beam	-41.4	-41.1	-
NW Zone Beam	-40.3	-40.0	-
NE Zone Beam	-38.6	-38.3	-
SW Zone Beam	-41.1	-40.8	-
SE Zone Beam	-39.9	-39.6	-
C-Band Beam (H-Pol.)	-	-	-34.0
C-Band (V-Pol.)	-	-	-34.6

Note: The beam EIRP density was calculated by subtracting from the beam peak EIRP the value of 10 log of the transponder bandwidth (in Hertz), i.e. Beam Peak EIRP Density = [Beam Peak EIRP] – [10Log(transponder bandwidth in Hertz)].