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January 5, 2015

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington D.C. 20554

Re: Reply to Supplemental Response
File No. SAT-MOD-20140829-00097

Dear Ms. Dortch,

ABS files this Reply in response to Intelsat's "Supplemental Response" dated December 19, 2014, in the above-referenced proceeding (the "Supplemental Response"). Intelsat is seeking permanent authorization to operate the Intelsat 5 satellite at 157° E.L. (FCC File Number SAT-MOD-20140829-00097).

Intelsat states that Intelsat 5 uses the same C-band frequencies and power levels as have been used by the Intelsat 706 satellite at the same orbital location, and that Intelsat 5 meets the power levels set forth in Section 25.212 of the Commission's Rules¹ for the C-band. Intelsat is clearly seeking to have the Commission conclude that Intelsat 5 is technically similar or equivalent to Intelsat 706.

In this regard, as stated in ABS's filing of December 1, 2014,² Intelsat has deliberately provided only a portion of the equation – specifically, Intelsat has ignored the critical transponder bandwidth factor. Specifically, although the power levels of Intelsat 5 and Intelsat 706 are similar, the transponder bandwidth of Intelsat 5 is substantially smaller than that of Intelsat 706 in the C-band frequencies that overlap with ABS 6. Consequently, when an Intelsat 5 transponder is being operated at maximum power, that power is concentrated within a much smaller bandwidth than is the case on Intelsat 706, which in turn results in a much higher EIRP density level and interference into adjacent satellites than Intelsat 706 – with the increase in interference being 2.7 to 5.5 times greater at C-band. Such higher interference would subject ABS services to very high levels of interference and would require the use of large receiving antennas that would not be commercially competitive.

As the FCC is itself aware, during bilateral coordination discussions between U.S.-licensed operators and those of another administration, the primary focus is on the maximum downlink EIRP density level and uplink power density level that each side may transmit from its satellite(s) and ground earth station(s), respectively. For the space segment, it is the EIRP density level, not simply the power level (i.e., EIRP) of the satellite, which determines how similar two satellites are, even though the satellites may have identical power levels.

¹ 47 C.F.R. § 25.212.

² Reply of ABS Global, Ltd., File No. SAT-MOD-20140829-00097 (filed Dec. 1, 2014).



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For example, assume that there are two co-coverage, co-frequency satellites, A and B, having the same downlink EIRP. If the transponder bandwidth of satellite A is half as large as that of satellite B, then satellite A is going to create twice as much interference into satellite B— it is as if satellite A has a power level that is twice that of satellite B. This is the situation that exists with Intelsat 5 vis-à-vis Intelsat 706.

In addition to the above points, as ABS has highlighted in its previous filings, the C-band coverage area of Intelsat 5 is substantially different than Intelsat 706. Specifically, Intelsat 5 provides coverage of areas that are not covered by Intelsat 706.

In short, Intelsat 5 is not technically equivalent to Intelsat 706 and should not be treated as such by the Commission.

In its December 19th Supplemental Response, Intelsat states that, in the relevant C-band frequencies at 157° E.L., it has filing priority by virtue of the fact that its filing has been listed in the ITU Master Register. According to Intelsat, ABS's Petition to Deny is "simply seek[ing] to co-opt the FCC licensing process to eliminate the important distinction between fully notified ITU filings that have been listed in the Master Register and filings still in the notification phase."³

In this regard, as ABS has stated on several occasions, Intelsat has a fundamental misunderstanding of the ITU Radio Regulations. Specifically, an ITU satellite network that has filing priority has an obligation to coordinate with a lower priority network when the latter network requests such a coordination. This obligation exists without regard to whether the higher priority network is notified or in the ITU Master Register or is still in the coordination stage. Moreover, as has been indicated by the ITU Radio Regulations Board, both sides are expected to coordinate in good faith to reach a mutually agreeable coordination agreement. The intent of the ITU Radio Regulations, as well as the Commission's Rules, is not to allow the operator of the satellite network having higher priority to make unrealistic or commercially non-viable operational demands of the operator with the lower priority; such an approach would lead to a sterilization of the orbital arc, whereas both the ITU and the FCC instead emphasize the efficient and equitable use of the spectrum.

The lack of good faith demonstrated by Intelsat in coordinating with ABS with respect to the 159°E.L. and 157° E.L. locations is readily apparent when the C-band link budgets of Intelsat 706 are compared against those for Intelsat 5, as stated in Intelsat's FCC filings. Specifically, for Intelsat 706, Intelsat indicates that it can provide adequate services to customers in the presence of an interfering EIRP density level of -32 dBW/Hz from a satellite located at 159° E.L., but for Intelsat 5 it indicates that in order to protect those same services it requires that ABS 6, located at 159° E.L., operate at an Intelsat proposed level of -42 dBW/Hz, a level to which ABS has not agreed. This is a reduction in the power level of 10 dB (or 10 times). In view of Intelsat's professed claim that Intelsat 5 would be providing continuity of services previously provided by Intelsat 706, one has to question how it is that Intelsat was able to operate its services on Intelsat 706 with one (higher) level of interference from an adjacent satellite located at 159° E.L., but

³ Supplemental Response at 2.



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when those services are transferred to Intelsat 5 it requires that same adjacent satellite (at 159° E.L.) to lower its power level by 10 times.

Intelsat asserts that foreign operators – such as ABS – continue to attempt to exploit U.S. regulations and the FCC's processes to force U.S.-licensed operators to provide concessions in coordination negotiations. Intelsat's efforts to wrap itself in the American flag are ironic because Intelsat itself is a foreign operator, headquartered in Luxembourg. ABS, like Intelsat, has a sales office in the United States and provides satellite capacity to the U.S. government. Contrary to Intelsat's assertion,⁴ ABS has not attempted to gain coordination leverage on Intelsat as part of the FCC process, but instead, as is ABS's right, has highlighted for the Commission the actions that Intelsat has continued to take with regard to ABS 6, and how Intelsat's actions are contrary to the spirit and aim of both the FCC's Rules and the ITU's Radio Regulations.

Finally, ABS notes that Intelsat has still not provided a response to ABS's proposal that the existing constraints are no longer applicable to the non-overlapping frequency bands of Intelsat 5 and ABS 6.

Should you have any questions or comments regarding this matter, please contact the undersigned.

Sincerely,

Arlene Kahng
General Counsel

Cc: Jennifer Hindin, Counsel for Intelsat
Susan Crandall, Intelsat
FCC:
Jose Albuquerque
Karl Kensinger
Stephen Duall
Kathryn Medley
Jay Whaley

⁴ *Id.*