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***By Electronic Filing***

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

**Re: Gogo LLC Section 1.65 Letter  
File No. SES-MFS-20151022-00735, Call Sign E120106**

Dear Ms. Dortch:

Gogo LLC ("Gogo"), by its attorney and pursuant to Section 1.65 of the Commission's rules, 47 C.F.R. § 1.65, hereby updates the above-referenced application to modify Gogo's license for Earth Stations Aboard Aircraft ("ESAA"), which sought to add a number of satellites to the Gogo ESAA network (the "Gogo Modification"). Specifically, this letter provides supplemental information regarding orbital debris mitigation matters for the JCSAT-2B and AsiaSat 7 spacecraft.

The Gogo Modification sought authority to add the JCSAT-2B and AsiaSat 7 satellites as authorized points of communication. In support of its requests, Gogo provided orbital debris mitigation statements relating to both spacecraft.<sup>1</sup> Subsequent to submitting the modification application, Gogo has had further discussions with the satellites' operators, and provides the following information regarding the residual helium pressurant that is expected to be on board the satellites at end of life.

Both JCSAT-2B and AsiaSat 7 are Space Systems/Loral 1300 model spacecraft. Gogo has been advised that although the helium will be vented as part of the retirement procedures for these satellites, a regulator on the tanks will prevent complete expulsion of the helium. The specification for the minimum inlet pressure below which that regulator cuts off the flow of helium is 400 psia. Based on that pressure, and assuming a temperature of 298K, the residual helium after depletion is estimated to be approximately 440 grams. This value reflects the combined mass of helium in the two interconnected helium tanks, each of which has a volume of 49 liters. The tank pressure of 400 psia will be a fraction of the tanks' maximum expected operating pressure, which is 4000 psia.

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<sup>1</sup> See Gogo Modification, Annex 5.1.C, JCSAT-2B Orbital Debris Mitigation Statement, and Annex 5.5.C, AsiaSat 7 Orbital Debris Mitigation Statement.

Gogo seeks any necessary waiver of Section 25.283(c) of the Commission's rules with respect to the residual helium that will remain on the JCSAT-2B and AsiaSat 7 satellites at end of life. That section requires that space station operators take steps as part of the retirement procedures to discharge energy sources on board the satellite, including "relieving pressure vessels." 47 C.F.R. § 25.283(c). As discussed above, although the helium will be substantially depleted as part of the retirement process, thus "relieving" the pressure in these tanks, once the inlet pressure drops below the set point of the regulator it is impossible to continue to expel the helium. This limitation is part of the design of the spacecraft. AsiaSat 7 is already in orbit and JCSAT-2B is scheduled to be launched soon. Under these circumstances, grant of any necessary waiver is consistent with Commission precedent.<sup>2</sup>

Gogo requests that the Commission update its records regarding the Gogo Modification to take the above information into account and seeks expeditious processing of the Gogo Modification with these updates. Please let me know if you have any questions regarding this matter.

Respectfully submitted,

*/s/ Karis A. Hastings*

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<sup>2</sup> See Gogo Modification, Narrative at 13-14 & nn. 22 & 23 (citing cases in which waivers of § 25.283(c) were granted for satellites under construction and for in-orbit spacecraft).