



Federal Communications Commission
Washington, D.C. 20554

December 6, 2011

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Orbcomm, Inc.
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Re: Modification Application of Orbcomm License Corp.
IBFS File No. SAT-MOD-20111021-00207
Call Sign: S2103

Dear Mr. Sonnenfeldt and Mr. Goodman:

On October 21, 2011, Orbcomm License Corp. filed the referenced application to modify the license for Orbcomm's non-voice, non-geostationary, low-Earth orbit (Little LEO) satellites. In order to facilitate review of the application, we request that Orbcomm file a supplement to the application to address the following:

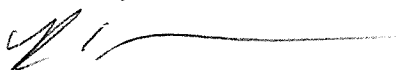
- 1) Concerning fuel remaining in the fuel tanks at the end of the satellites' operational life, the application notes that fuel is budgeted for maneuvering the space station to target disposal at lower altitudes. The application also states that after the satellite is so maneuvered, "very small, residual amounts of fuel" will be left in the fuel tanks. Please quantify the amount of residual hydrazine fuel that Orbcomm anticipates will remain at the conclusion of disposal maneuvering. In addition, the application states that "very little pressure" will be left in the fuel tanks. Please quantify the amount of pressure of the fuel tank at the conclusion of disposal maneuvering, and indicate whether the fuel tank or other portions of the propulsion system will be sealed in any manner, for example by a "normally closed" latch valve.
- 2) Concerning battery re-connection after end of operational life, the application states that "a randomly tumbling satellite will keep the batteries at a low state of charge and will reconnect the spacecraft bus and payload if the battery is sufficiently charged, avoiding an overcharge condition." Please describe further the consequences of a potential battery overcharge scenario. Would the re-connected spacecraft payload resume radiofrequency

transmission? Does Orbcomm have any means to permanently disable radiofrequency transmission at end of life, regardless of battery re-connection? Can the batteries be completely disconnected and left in a state of permanent discharge? If not, please explain why not.

3) Concerning safe flight profiles, we note that this application requests authority for operation of the next generation Orbcomm satellites at an inclination of 51.6 degrees. This is the same inclination as the International Space Station. We also note that the inclination of 51.6 degrees will be maintained even after the lowering of the perigee altitude at the end of mission. Therefore, it is possible that the orbits of Orbcomm satellites could intersect the orbit of the International Space Station. Please provide an analysis for the probability and frequency of conjunctions between the each of the Orbcomm satellites and the ISS over the anticipated orbital lifetime of the Orbcomm satellites.

Accordingly, pursuant to Section 25.111(a) of the Commission's rules,¹ and Section 0.261 of the Commission's rules on delegations of authority,² we require the supplementation of the modification application of Orbcomm License Corp. within 30 days of the date of this letter, with responses to the questions raised herein.

Sincerely,



Robert G. Nelson
Chief, Satellite Division
International Bureau

¹ 47 C.F.R § 25.111(a).

² 47 C.F.R § 0.261.