



October 27, 2011

**VIA IBFS**

Robert Nelson, Chief  
Satellite Division  
International Bureau  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, D.C. 20554

**Re: Application of ORBCOMM License Corp. For Authority to  
Modify its Non-Voice, Non-Geostationary Satellite Service  
Space Segment License (S2103) to Revise the Next-Generation  
Satellite Deployment Plan**

**File No. SAT-MOD-20111021-00207**

Dear Mr. Nelson:

On October 21, 2011, ORBCOMM License Corp. (“ORBCOMM”) filed the above-referenced application (the “Modification Application”) to modify its Non-Voice, Non-Geostationary Satellite Service FCC space segment license (FCC Call Sign S2103) to revise the deployment plan for the eighteen currently authorized ORBCOMM Generation 2 (“OG2”) satellites. The Modification Application revises, updates, and supersedes a prior ORBCOMM space segment license modification application filed on August 1, 2011 (the “Prior Application”).<sup>1</sup> In this regard, please find below a listing of the specific additional information requested by the International Bureau with respect to the Prior Application with relevant citations to the Modification Application.

---

<sup>1</sup> *Modification Application of ORBCOMM License Corp.*, File No. SAT-MOD-20110801-00141. On September 1, 2011, the International Bureau dismissed the prior application as incomplete, without prejudice to re-filing. *Letter from Robert G. Nelson, Chief, Satellite Division, to Walter H. Sonnenfeldt and Stephen L. Goodman, counsel for ORBCOMM License Corp.*, DA 11-1499 (September 1, 2011).

**1. Further analysis concerning the potential for accidental explosions.**

*See*, Modification Application, Narrative Exhibit, *Minimizing Accidental Explosions*, at pp. 22-24. *See, also*, concurrently filed Confidential submission, Exhibits 1 – 5 (OG2 spacecraft explosion hazard analyses and related materials prepared by the OG2 satellite manufacturer).

**2. Additional information regarding post-mission disposal plan and fuel budget.**

A more detailed post-mission disposal plan and fuel budget showing is provided. *See*, Modification Application, Narrative Exhibit, at 28.

**3. NASA organizational point of contact for planned SpaceX Falcon 9 launch.**

Mr. Bryan Corley is identified as the NASA point of contact. *See*, Modification Application, Narrative Exhibit, Appendix B, *Details of ORBCOMM OG2 Satellite SpaceX Falcon 9 Launch Profile and ISS Collision Avoidance Coordination*, at FN 1.

**4. Additional information regarding SpaceX Falcon 9 OG2 launch mission coordination with NASA, and in particular with respect to operations of the second stage following separation of the Dragon capsule.**

ORBCOMM and Space X are both engaged in pre-mission coordination with NASA for the upcoming Falcon 9 launch. In the first 56 hour period following launch, SpaceX will be responsible for operational coordination with NASA with respect to the launch vehicle (including the second stage), the Dragon capsule primary payload, and the OG2 spacecraft. After the initial 56 hour period following launch, SpaceX will retain operational coordination responsibility for the launch vehicle and Dragon capsule, and ORBCOMM will assume operational coordination responsibility for the OG2 spacecraft. *See*, Modification Application, Narrative Exhibit, Appendix B, *Details of ORBCOMM OG2 Satellite SpaceX Falcon 9 Launch Profile and ISS Collision Avoidance Coordination*, , at pp. 4-6; *see, also, Id.*, Exhibit 1.

**5. Additional information regarding collision avoidance monitoring systems in place for the OG2 satellites, including coordination procedures with NASA and JSpOC.**

*See*, Modification Application, Narrative Exhibit, at pp. 25 -27; ; *see, also, Id.*, Appendix B, at pp. 1 & 4 – 7.

**Robert Nelson, Chief  
Satellite Division  
International Bureau  
Federal Communications Commission  
October 27, 2011  
Page 3 of 3**

**6. Additional information regarding OG2 collision avoidance policies and procedures.**

*See*, Modification Application, Narrative Exhibit, Appendix B, at 7.

**7. Clarifications regarding OG2 spacecraft atmospheric re-entry casualty risk assessment.**

In the process of reviewing ORBCOMM's prior evaluation of OG2 satellite re-entry casualty risk, modeling was conducted using NASA's DAS program. The DAS output confirms that the previous assessment was overly conservative. DAS predicts that no OG2 debris will survive re-entry. *See*, Modification Application, Narrative Exhibit, at pp. 28 – 29.

**8. SpaceX Falcon 9 launch vehicle second stage post-mission disposal plan.**

SpaceX has informed ORBCOMM that SpaceX is directly addressing all FCC questions or concerns regarding Falcon 9 launch vehicle post-mission disposal plans, and that it is doing so in connection with a pending SpaceX application for Experimental Special Temporary Authority relating to the Falcon 9 mission. *See*, *Application of Space Exploration Technologies Corp.*, File No. 0526-EX-ST-2011. SpaceX has also informed ORBCOMM that, on September 26, 2011, SpaceX submitted for inclusion in the record of the above-referenced application (under request for confidential treatment) the results of a third-party study addressing the post-mission disposal plan for the Falcon 9 launch vehicle, including the second stage.

The cross-references provided in this letter are intended to assist the Commission in the expeditious review and processing of the Modification Application. Kindly direct any inquiries concerning this submission to the undersigned.

Respectfully submitted,



Walter H. Sonnenfeldt, Esq.  
Vice President, Regulatory Affairs  
ORBCOMM Inc.  
Direct Tel: (585) 461-3018  
E-Mail: [sonnenfeldt.walter@orbcomm.com](mailto:sonnenfeldt.walter@orbcomm.com)