



January 12, 2021

**VIA IBFS**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
45 L Street, NE  
Washington, DC 20554

**Re: *Ex Parte Letter***

Swarm Technologies, Inc., Call Sign S3041, File Nos. SAT-LOA-20181221-00094, SAT-MOD-20200501-00040, and SAT-AMD-20200504-00041;  
ORBCOMM License Corp., Call Sign S2103, File Nos. SAT-MOD-20070302-00041, SAT-MOD-20070531-00076, and SAT-AMD-20071116-00161

Dear Ms. Dortch:

ORBCOMM License Corp. (“ORBCOMM”) is filing this notice of a January 7, 2021, telephone meeting between ORBCOMM, represented by Walter Sonnenfeldt, and Karl Kensinger, the Acting Chief of the Satellite Division. In addition, ORBCOMM is responding to letters submitted to the Commission by Swarm Technologies, Inc. (“Swarm”) on December 23, 2020 and December 28, 2020. During the telephone call, Mr. Sonnenfeldt explained that Swarm had mischaracterized ORBCOMM’s position with respect to the ongoing efforts in CEPT to allow entry by Swarm. Swarm erroneously claimed that “While Orbcmm expressed a willingness to agree to some constrained, time-limited use of the channel by Swarm, Orbcmm stated that it ‘objects to implementation’ of Swarm’s interim proposal at this time.” Rather than objecting to implementation of the interim proposal, as the attached CEPT FM44#62 meeting summary indicates:

ORBCOMM supported CEPT approval of the proposed interim Swarm spectrum utilization, provided that the terminal uplink burst duration be limited to 500ms pending the completion of intra service compatibility studies verifying that Swarm’s proposed 1700ms burst duration would not cause unacceptable interference.

The “time-limited use” of the channel that Swarm references – a 500ms transmission burst duration limit – is actually more generous than the 450ms burst duration limit in effect in the United States.

In addition to correcting Swarm’s mischaracterization of ORBCOMM’s activities in CEPT, during the telephone call Mr. Sonnenfeldt also indicated that Swarm has not been working in good faith to reach a sharing agreement with ORBCOMM, notwithstanding the Mr. Kensinger’s admonition in his email of November 18, 2020 to ORBCOMM and Swarm: “[W]e



ask that both companies work with the utmost in cooperation and good faith to facilitate the commencement of global service by the Swarm system, and the continuation of global service by Orbcomm.” Instead, Swarm appears intent on simply pressing ahead with making flawed legal arguments in an effort to circumvent the required notice and comment procedures that would have to be undertaken if the Commission finds a need modify its current NVNG MSS Rules, policies, and licensing decisions, which at this time do not extend NVNG MSS frequency licensing assignments or intra service sharing arrangements outside of the United States.

In its letter of December 23, 2020, Swarm continues to try to convince the Commission to ignore its NVNG MSS rulemaking and licensing decisions that have consistently and explicitly declined to adopt a global band plan, but instead to recognize the sovereignty of foreign Administrations to determine how NVNG MSS services are offered within foreign jurisdictions.<sup>1</sup> Moreover, the 1997 Second Processing Round order did not *sub silentio* alter that determination, but instead itself recognized the sovereignty of Foreign Administrations to address NVNG MSS satellite service operations within their country.<sup>2</sup> Swarm also continues to

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<sup>1</sup> See, *In the Matter of Application of Orbital Communications Corporation*, 9 FCC Rcd. 6476 (1994), at ¶ 15 (“Further, we will not impose a global bandsharing plan on U.S. licensees at this time. As we discussed in our Report and Order in the MSS Above 1 GHz proceeding, we do not believe it is appropriate for the United States to impose global bandsharing restrictions, which will directly impact the ability of other countries to access these LEO systems, absent indications from these countries regarding their planned use of these frequency bands.”); *In the Matter of Amendment of the Commission’s Rules to Establish Rules and Policies Pertaining to a Non-Voice, Non-Geostationary Mobile-Satellite Service*, 8 FCC Rcd 8450 (1993) at ¶ 28 (“Because we will require our licensees to comply with international procedures, including the national requirements of any other licensing administrations, the efforts of these other jurisdictions to implement NVNG service within their own territories will remain within their control.”); and *ibid.* at n. 3 (“In order to provide global service, a Little LEO service provider will need to receive authorization or approval from each country in which it intends to offer Little LEO service.”).

<sup>2</sup> *In the Matter of Amendment of Part 25 of the Commission’s Rules to Establish Rules and Policies Pertaining to the Second Processing Round of the Non-Voice, Non-Geostationary Mobile Satellite Service*, 13 FCC Rcd. 9111 (1997), at ¶ 128:

In opposition, CTA argues that Little LEO licensees should not be penalized for the limited availability of spectrum by foregoing commercial opportunities in countries where spectrum may be extremely limited. Our intent is not to penalize licensees and we do not believe that our policy will have such a result. We recognize that spectrum coordination and availability as well as market size and commercial opportunities in a particular country may limit the number of systems that can serve that country. We will not penalize the sole service provider in a particular market if spectrum and market

rely on the Commission's decision more than a decade later to explicitly modify the Big LEO determination of not applying a global band plan for that service.<sup>3</sup> However, that decision said nothing about the NVNG MSS (or any satellite service other than Big LEO), and certainly nothing about imposing such requirements on ORBCOMM's modification license issued in 2008 that was granted several months prior to the Big LEO decision. Moreover, the Big LEO decision is also readily distinguishable from the current situation with regard to NVNG MSS. The Big LEO decision followed a rulemaking proceeding and Section 316 Modification proceeding – the Bureau did not simply make such a declaration in a letter to CEPT as Swarm would have the Commission do here. Moreover, the Big LEO decision to modify the band plan and apply it globally was based on the undisputed determination that sharing between the two Big LEO systems was impossible, because of the systems' use of different technologies – CDMA and TDMA. In contrast, sharing amongst FDMA NVNG MSS systems should be possible, as evidenced by the Second Processing Round sharing agreement.<sup>4</sup> Indeed, the Commission recognizes that a sharing agreement is preferable to a Commission-imposed solution.<sup>5</sup> ORBCOMM thus urges the Commission to reiterate its admonition to Swarm to “work with the utmost in cooperation and good faith” to reach a sharing agreement.<sup>6</sup>

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limitations prohibit another system from entering and serving the particular market. We do not expect a United States licensed system to forego opportunities to serve markets based on the possibility that it may be the only service provider in the market. (citation omitted)

<sup>3</sup> *Globalstar Licensee LLC, GUSA Licensee LLC, Iridium Constellation LLC, Iridium Satellite LLC And Iridium Carrier Services*, 23 FCC Rcd 15207 (2008) (“*Globalstar-Iridium Order*”).

<sup>4</sup> In fact, in the context of the Swarm space segment licensing proceedings, both ORBCOMM and Swarm have stated that that such sharing should be possible. *See, e.g., Reply of ORBCOMM License Corp.*, filed September 14, 2020 at pp. 16-17; *Consolidated Response and Opposition of Swarm Technologies, Inc.*, filed September 1, 2020, at pp. 7-9 and 11. ORBCOMM has elsewhere explained in detail, however, why Swarm's Carrier-Sense Multiple Access media access control protocol with Collision Avoidance scheme for avoiding interference between NVNG MSS systems will not protect against harmful interference. *See, Reply of ORBCOMM LICENSE CORP.*, File No. SAT-AMD-20200504-00041 and File No. SAT-MOD-20200501-00040, filed September 14, 2020, at pp. 8-12 and Attachment 1.

<sup>5</sup> *E.g., Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, 32 FCC Rcd 7809 (2017) at ¶ 48 (“We believe that coordination among NGSO FSS operators in the first instance offers the best opportunity for efficient spectrum sharing.”).

<sup>6</sup> Although ORBCOMM disagrees with many of the assertions in the letter filed by Myriota Pty. Ltd. on December 4, 2020, ORBCOMM does agree that it makes sense to have all

In addition to the flawed legal arguments underlying Swarm’s proposed Commission action, the Swarm proposal would also implicate some very thorny policy issues. As discussed above, Commission imposition of NVNG MSS global band sharing requirements based on the record before it at this time would be wholly inconsistent with the key justifying rationale for extending Big LEO band sharing requirements outside of the United States. It would also be inconsistent with the Commission’s consistent recognition of the sovereignty of foreign Administrations to address NVNG MSS satellite service offerings within their country.<sup>7</sup> In addition, such action would raise questions with regard to the Commission’s authority, given that in the Big LEO decision the Commission relied on ITU Radio Regulation 18.1 to impose global band plan obligations on the satellite licensees,<sup>8</sup> but that provision addresses the Commission’s role as the licensing Administration for transmissions.<sup>9</sup> In contrast to the Big LEO case, however, the bands at issue here involve satellite uplinks, not satellite downlinks.<sup>10</sup>

Finally, ORBCOMM observes that the European regulators are trying to avoid the inefficiency of band segmentation that the Commission effectively adopted within the United States by awarding Swarm its initial license, which relied on the Second Processing Round frequency assignments, but not the Second Processing Round “bandsharing plan.” The Second Processing Round band sharing plan involved more than just the frequency assignments, and the un-shared portion of the band that Swarm was awarded was originally reserved for a CDMA system, because sharing between the FDMA systems and the CDMA system was not possible. But Swarm does not use CDMA, and thus spectrum which could be shared will not be under the proposed unilateral global imposition of the Second Processing Round frequency assignments. It

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of the applicants work together with ORBCOMM to develop a mutually acceptable sharing agreement.

<sup>7</sup> Indeed, the Commission itself relies on such authority over foreign-licensed satellite systems to address issues including orbital debris mitigation (47 CFR § 25.137(b)) and the re-allocation of the C-band (*Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, 35 FCC Rcd 2343 (2020)).

<sup>8</sup> *Globalstar-Iridium Order*, at n. 85.

<sup>9</sup> Radio Regulation 18.1 provides (emphasis added):

*No transmitting station* may be established or operated by a private person or by any enterprise without a licence issued in an appropriate form and in conformity with the provisions of these Regulations by or on behalf of the government of the country to which the station in question is subject (however, see Nos. **18.2**, **18.8** and **18.11**).

<sup>10</sup> In the Big LEO context, the satellite spectrum at issue involved satellite downlinks, because Iridium had bi-directional operations in the band at issue there.

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**Page 5 of 5**

made no sense for the Commission to adopt such an inefficient scheme here when it awarded Swarm its license -- it would be an even worse policy choice for the Commission to try to impose such inefficiencies on the Europeans.

For all of these reasons, the best course for the Commission to take would be to once again admonish Swarm to negotiate a sharing agreement in good faith, rather than following Swarm's suggestion of imposing the U.S. NVNG MSS uplink assignments on the rest of the world. If the Commission ultimately deems it necessary to consider extending NVNG MSS band sharing plans to preclude harmful intra service interference beyond the territory of the United States, ORBCOMM would support initiation of the required notice and comment proceedings to consider the required changes to the Commission's NVNG MSS Rules and policies.

Respectfully submitted,



Walter H. Sonnenfeldt, Esq.  
Regulatory Counsel  
ORBCOMM License Corp. &  
Vice President, Regulatory Affairs  
ORBCOMM Inc.  
395 West Passaic Street, Suite 325  
Rochelle Park, New Jersey 07662  
Direct Tel: (585) 461-3018  
E-Mail: [sonnenfeldt.walter@orbcomm.com](mailto:sonnenfeldt.walter@orbcomm.com)

Stephen L. Goodman  
Stephen L. Goodman PLLC  
532 North Pitt Street  
Alexandria, Virginia 22314  
(202) 607-6756  
E-Mail: [stephenlgoodman@aol.com](mailto:stephenlgoodman@aol.com)

Counsel for ORBCOMM Inc.

cc: Karl Kensinger (via E-Mail)  
Thomas Sullivan (via E-Mail)  
David Konczal (via E-Mail)  
Bill Richardson (via E-Mail)  
Scott Blake Harris (via E-Mail)  
Eric B. Graham (via E-Mail)