Federal Communications Commission
Washington, D.C. 20554

May 6, 2020

William M. Wiltshire
Harris, Wiltshire & Grannis LLP
1919 M Street, NW
Suite 800
Washington, D.C. 20036

Re: IBFS File No. SAT-MOD-20200417-00037; Call Signs: S2983 and S3018

Dear Mr. Wiltshire:

On April 17, 2020, Space Exploration Holdings, LLC (SpaceX), filed the above-captioned application requesting modification of its license for the Ku- and Ka-band Starlink constellation to lower the specified altitude of 2824 of its satellites from 1100-1330 km to 540-570 km and to reduce the total number of satellites from 4409 to 4408. To assist in the Satellite Division's review of SpaceX's application, please provide the information requested below.[1]

1. Using the NASA Debris Assessment Software or a higher fidelity model, please provide the in-orbit collision risk for a satellite at each of the various operational altitudes and inclinations specified in the modification application, assuming that the maneuver capability on the satellite is not available, and assuming alternative cases of a satellite for which attitude is maintained, and one that is tumbling.[2] Please provide this analysis for both the current satellite design and the design that includes sun shade panels.[3]

2. Please provide a discussion of the efforts that have been taken or will be taken to address collision risk with the respect to other satellite systems that have been licensed or plan to be operated at the same operational altitude ranges, including any coordination of operations that has occurred or that is planned.

3. Please indicate whether any of the satellites launched to date have permanently lost maneuver capabilities at an altitude above the injection altitude, and, if so, please indicate at what altitude.

[1] 47 CFR § 25.111(a).
[2] We note that SpaceX has provided the collision risk for a single satellite that has failed at the injection altitude (350 km). *See* Petition, Technical Attachment at 21-22.
[3] See Space Exploration Holdings, LLC, Notification of Ex Parte Presentation, IBFS File No. SAT-MOD-20200417-00037, at slide 9 (May 6, 2020).

4. Please provide the estimated mission lifetime per satellite, and an estimate of the number of satellites that will be launched during the fifteen-year license term.

The requested information must be submitted no later than **June 6, 2020**. Failure to do so may result in the dismissal of SpaceX's application pursuant to Section 25.112(c) of the Commission's rules.[4]

Sincerely,

/s/ Jose P. Albuquerque

Jose P. Albuquerque
Chief, Satellite Division
International Bureau

[4] *See* 47 C.F.R. § 25.112(c).