SPACEX

June 3, 2020

VIA ELECTRONIC FILING

Marlene H. Dortch Secretary Federal Communications Commission 445 Twelfth Street, S.W. Washington, DC 20554

Re: Space Exploration Holdings, LLC, IBFS File No. SAT-MOD-20200417-00037; Kuiper Systems LLC, IBFS File No. SAT-LOA-20190704-00057

Dear Ms. Dortch:

This is to inform you that on June 1, 2020, David Goldman, Director of Satellite Policy for Space Exploration Technologies Corp. ("SpaceX"), spoke by telephone with Aaron Goldberger from the Office of Chairman Pai with respect to the above referenced proceedings.

SpaceX urged the Commission to expeditiously accept and put out for public comment its modification application. SpaceX continues its aggressive launch schedule, and the proposed modification is a crucial component in closing the digital divide, including service to Polar Regions. This modification has been pending for over six weeks and SpaceX responded to the staff's request for additional information more than two weeks ago—which was more than two weeks ahead of the Commission's deadline.

Moreover, competitors and others have not waited for the Commission to accept the pending modification before engaging with the staff and the Chairman's office about it. Because some of the ex parte letters documenting these meetings provide little or no detail about what was discussed, SpaceX has limited ability to address the concerns that might have been raised. By initiating the comment cycle, the Commission will both give these competitors a more robust forum to explain their concerns and provide SpaceX with a fair chance to respond.

For example, in its only comprehensive ex parte letter, Amazon asked for a number of details about the operations of SpaceX's system as modified, most of which reflect rules recently adopted by the Commission that have not yet gone into effect. SpaceX has since provided extensive data about its operations in response to a request from the Commission. These responses specifically included information responsive to the questions raised by Amazon.

See Letter from Mariah Dodson Shuman to Marlene H. Dortch, IBFS File No. SAT-LOA-20200417-00037 (May 1, 2020) ("Amazon May 1 Ex Parte").

See Letter from William M. Wiltshire to Jose P. Albuquerque, IBFS File No. SAT-LOA-20200417-00037 (May 15, 2020).

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By contrast, Amazon once again expects special treatment—just as it has throughout this process. But now, Amazon urges the Commission to grant its own application even though (unlike SpaceX) it has not provided any supplemental information of the sort required under the newly adopted orbital debris mitigation rules. Indeed, the orbital debris discussion in Amazon's application fails to supply *existing* required showings, such as an analysis of the potential for human casualties from de-orbiting satellites.³ Instead, Amazon has promised that it "will submit a comprehensive Debris Assessment Software ('DAS') analysis to supplement the Application when it has finalized the Kuiper System's satellite materials and components" and has offered that "the Commission may condition any authority on submission and approval of the detailed collision avoidance and maneuverability analysis once all system components and configurations are final." In other words, Amazon urges the Commission to expeditiously *complete* processing of its own application while arguing that the Commission should not even *begin* processing a SpaceX application that includes much more information on orbital debris mitigation.

Moreover, while Amazon's filings remain vague, it appears to be arguing that no other operators—particularly competitors—should have access to orbital altitudes that Amazon has claimed for itself.⁵ In other words, Amazon seems to believe it is entitled to exclusive rights to entire regions of space. The Commission specifically rejected such a concept in its recent update to the orbital debris mitigation rules, "declin[ing] to adopt a required separation between orbital locations" and finding that "these concerns are best addressed in the first instance through inter-operator coordination." It is also worth noting that for its own operations, Amazon recognizes that a satellite system that has maneuvering capability is deemed by the Commission to have a risk of colliding with other objects in space of "zero, or near zero." Yet for some reason, Amazon believes that the Commission needs to inquire whether SpaceX's fully maneuverable satellites pose a collision risk to Amazon's system. The Commission should not reward such cynically contradictory arguments.

Since it is apparent that Amazon is not far enough along in the development of its system to provide an analysis of the risks it poses to the orbital environment, the Commission must not move forward with its application, especially given that the second processing round

⁷ See Consolidated Opposition and Response of Kuiper Systems LLC, IBFS File No. SAT-LOA-20190704-00057, at 34 (Nov. 13, 2019). See also Orbital Debris Update Order, ¶ 35 (concluding that the "assumption of zero is warranted").



Compare 47 C.F.R. § 25.114(d)(14)(iv) (requiring a casualty risk assessment that "should include an estimate as to whether portions of the spacecraft will survive re-entry and reach the surface of the Earth, as well as an estimate of the resulting probability of human casualty"); Application of Kuiper Systems, LLC, IBFS File No. SAT-LOA-20190704-00057, Technical Appendix at 34-35 (July 4, 2019) (failing to provide actual analysis but promising to use approved software to validate casualty risk in the future).

Letter from Mariah Dodson Shuman to Marlene H. Dortch, IBFS File No. SAT-LOA-20190704-00057, at 17 (Jan. 27, 2020) (internal footnotes omitted).

⁵ Amazon May 1 Ex Parte at 2.

Mitigation of Orbital Debris in the New Space Age, FCC 20-54, ¶ 47 (rel. Apr. 24, 2020) ("Orbital Debris Update Order").

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closed just days ago. Neither the Commission nor stakeholders have had sufficient time to analyze how Amazon's system will interact with the other systems with which it is to be considered. In any event, given the nascent state of Amazon's system development, allowing the Commission and other interested parties the time necessary to fully understand its implications should have no material impact on the timing of its deployment.

Very best regards,

/s/ David Goldman

David Goldman
Director of Satellite Policy

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