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Filed Electronically

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th St., S.W.
Washington, DC 20554

Re: *Ex parte* filing
Expanding Access to Broadband and Encouraging Innovation through
Establishment of an Air-Ground Mobile Broadband Secondary Service
for Passengers Aboard Aircraft in the 14.0-14.5 GHz Band; GN Docket
No. 13-114, RM-11640

Dear Ms. Dortch:

On July 28, 2015, the representatives of Space Exploration Technologies Corp. ("SpaceX") who are identified in an attachment to this letter met with the FCC staff who are shown as "cc's" to this letter concerning the above-referenced rulemaking proceeding.

The Commission is considering in the proceeding whether to adopt rules that would establish an air-ground mobile broadband service that would operate in the 14.0-14.5 GHz band on a secondary, non-interference basis with Fixed-Satellite Service ("FSS") Earth-to-space communications.¹ The service would be based principally on proposals made by Qualcomm, Inc. ("Qualcomm") in a Petition for Rulemaking.²

¹ See *Notice of Proposed Rulemaking*, Expanding Access to Broadband and Encouraging Innovation through Establishment of an Air-Ground Mobile Broadband Secondary Service for Passengers Aboard Aircraft in the 14.0-14.5 GHz Band; GN Docket No. 13-114, RM-11640, FCC 13-66 (May 9, 2013).

² Qualcomm, Petition for Rulemaking, RM-11640, filed July 7, 2011.

SpaceX plans to operate a nongeostationary satellite orbit (“NGSO”) FSS satellite system that will use (among other frequencies) the 14.0-14.5 GHz band that has been proposed for the new air-ground service. The new service, because it would be secondary, would need to protect SpaceX in the 14.0-14.5 GHz band.

SpaceX’s representatives expressed concern in the meeting with the potential for the new air-ground service to interfere with SpaceX’s 14.0-14.5 GHz band operations. They stated that Qualcomm’s showing as to how it proposed to protect satellite operations assumed a wide beamwidth, a low gain, and a G/T of -7 dB/K for NGSO FSS systems. These assumptions are inapplicable to SpaceX’s system, which will have a narrow beamwidth, a high gain, and a maximum G/T of 13 dB/K.

Qualcomm had stated in its showing that the proposed air-ground system would account for less than 1% of the rise over thermal (“RoT”) for NGSO FSS systems. When SpaceX substituted its beamwidth, gain, and G/T figures for the figures that had been assumed by Qualcomm, it found, using Qualcomm’s methodology, that the air-ground system in fact would account for over 6% of the RoT for SpaceX’s NGSO FSS system.

At the meeting, SpaceX’s representatives supported the proposal in this proceeding by the Satellite Industry Association that aggregate interference from all nonprimary sources, including the proposed air-ground system, be capped at 1% RoT of the NGSO FSS link budget. SpaceX’s representatives also stated they would consider a limit on the order of 0.33%-0.50% for the contribution to RoT of the proposed air-ground service, by itself, to the NGSO FSS link budget.

Please direct any questions regarding this filing to the undersigned.

Respectfully submitted,

A handwritten signature in black ink that reads "Henry Goldberg". The signature is written in a cursive, flowing style.

Henry Goldberg
Joseph A. Godles
*Counsel for Space Exploration Technologies
Corp.*

cc (via email): Julius Knapp, FCC/OET
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ATTACHMENT

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