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November 14, 2013

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: **Notice of Ex Parte: ET Docket No. 13-115**
Space Exploration Technologies Corp.

Dear Ms. Dortch:

On November 12, 2013, Mat Dunn, Director of Government Affairs for Space Exploration Technologies Corp. ("SpaceX"), David Den Herder, Senior Counsel to SpaceX, and the undersigned, outside counsel to SpaceX, met with Julius Knapp, Mark Settle, Nicholas Oros, Geraldine Matise, and Walter Johnston from the FCC Office of Engineering and Technology, and Robert Nelson and Karl Kensinger from the FCC International Bureau. The discussion focused on the following points addressed in the comments filed by SpaceX in response to the Commission's Notice of Proposed Rulemaking ("NPRM").[1]

We emphasized the importance of SpaceX operations in achieving the National Space Policy objective of promoting a robust and competitive commercial space sector in the U.S.[2] As the world's fastest growing launch services company, SpaceX services are critical for ensuring the long-term growth and sustainability of a domestic commercial launch industry. SpaceX appreciates and strongly supports the Commission's goal in this proceeding of "advanc[ing] the commercial space industry and the important role it will play in our nation's economy and technological innovation now and in the future."[3] As Chairman Wheeler observed, "[e]mbracing commercial manned launches will not only save the taxpayer dollars, but also will put Americans back in space sooner by using enhanced versions of existing launch vehicles."[4]

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[1] *See* Letter from Timothy R. Hughes, Senior Vice President and General Counsel, SpaceX, to Nicholas Oros, Office of Engineering and Technology, FCC, ET Docket No. 13-115 (filed Aug. 30, 2013); *see also Amendment of Part 2 of the Commission's Rules for Federal Earth Stations Communicating with Non-Federal Fixed Satellite Service Space Stations, et al.*, ET Docket No. 13-115, Notice of Proposed Rulemaking and Notice of Inquiry, 28 FCC Rcd 6698 (2013).

[2] *See* NPRM, ¶ 1.

[3] NPRM, ¶ 1.

[4] Tom Wheeler, "Mobile Musings" (May 6, 2010), *available at:* http://www.mobilemusings.net/2010/05/messages-from-outer-space.html (last visited Nov. 13, 2013).

SpaceX appreciates the Commission's recognition in the NPRM of the need for a more predictable, efficient spectrum authorization process that will provide commercial launch service companies with greater certainty for long-term planning.[5] We emphasized that the current Special Temporary Authority ("STA") process is a suboptimal approach as commercial space launches and other commercial operations in orbit grow in volume and frequency. SpaceX, for example, plans to conduct 8-12 launches in 2014, and 18-20 launches in 2015. Given the increasing volume and frequency of launches, and the similarities, from an FCC technical perspective, associated with each launch, it is irrational and inefficient for each spectrum authorization request to be evaluated on a case-by-case STA basis. Moreover, SpaceX makes a substantial financial and technical investment in each commercial space launch campaign – independent of customer in-orbit deadlines to realize material revenues to operate their businesses. The current STA process creates significant business uncertainty, both in terms of obtaining approval prior to scheduled launch dates, and with regard to the inherent uncertainty of STA status.[6] Indeed, each STA contains a specific special condition that "SpaceX shall be aware that future non-federal launches will be considered on a case-by-case basis, especially for requests in the band 2200-2290 MHz, and SpaceX shall have no expectations that future launches will be approved." This is untenable from a long-term planning perspective.

SpaceX strongly supports the Commission's proposal to establish co-primary, interference-protected allocation status for commercial space launch companies in order to streamline the authorization process through standard, clearly-defined application and coordination processes. Furthermore, SpaceX encourages the Commission to consider granting authorizations for multiple planned launches at a time – within the identified bands and frequencies proposed in the NPRM – rather than continuing with temporary authorizations on a case-by-case basis. While SpaceX urges the Commission to adopt these proposals to provide a more predictable and efficient spectrum authorization process, SpaceX appreciates Boeing's proposal for the Commission to issue authorizations valid for longer five-year terms,[7] and believes that proposal could provide an effective interim approach.

Additionally, we emphasized that SpaceX supports the Commission's proposal to add a footnote to the Allocation Table rather than amend the Allocation Table to add a non-Federal Space Operations allocation to for the 220-2290 MHz band. As discussed in its comments, SpaceX offers four recommendations to enhance the Commission's proposal and achieve the stated intent of supporting the robust growth of the domestic space launch industry:

(1) Non-Federal use must not be limited to launches from Federal ranges. This limitation would unduly limit the growth of the commercial space launch industry, as previously discussed, both from a launch operations perspective and from a developmental perspective. SpaceX appreciates that this is a Federal band. SpaceX recommends that

[5] *See* NPRM, ¶ 71.

[6] *See* NPRM, ¶ 71.

[7] *See* Reply Comments of the Boeing Company, ET Docket No. 13-115, at 7 (filed Sept. 30, 2013).

non-Federal use be limited to launches originating from Federal ranges or FAA-licensed spaceports;

(2) the footnote should provide that licensees may request spectrum for multiple planned launches simultaneously;

(3) the footnote should add 4 additional MHz of bandwidth to support the operations of heavy lift launch vehicles, such as the Falcon Heavy, preferably expanding the 2207-2219 MHz portion of the band 2 MHz in both directions. The current portions of the band identified by the Commission are not sufficient to support Falcon Heavy radio frequency requirements; and

(4) the portions of the band identified should be approved for developmental testing on a co-primary, interference-protected basis from FAA-licensed spaceports in addition to Federal Ranges to enable continued U.S. launch vehicle innovation.

SpaceX generally supports the Commission's proposal to limit the non-Federal use of these portions of the band for space launches and pre-launch testing, but SpaceX strongly recommends that the Commission add a provision enabling developmental testing on these bands to support next-generation U.S. launch vehicles.

Finally, we emphasized that there does not appear to be any strong reason in the record for the Commission not to proceed with these proposals for implementing a more predictable and efficient spectrum authorization process. By providing commercial space launch companies with greater certainty and stability, the implementation of these proposals will significantly advance the National Space Policy goal of fostering a robust and competitive domestic commercial space industry.

Respectfully submitted,

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