

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
)	
STREAMLINING LICENSING PROCEDURES)	IB Docket No. 18-86
FOR SMALL SATELLITES)	
)	

REPLY COMMENTS OF SPACE EXPLORATION TECHNOLOGIES CORP.

In its initial comments in this proceeding, Space Exploration Technologies Corp. (“SpaceX”) supported many of the Commission’s proposed revisions to its rules designed to facilitate deployment of a new class of small non-geostationary orbit satellites (“smallsats”). SpaceX files these brief reply comments simply to highlight that the Commission can achieve its objective in this proceeding by avoiding efforts to expand the proposed streamlined processing regime beyond appropriate bounds. The proposed regime will serve the public interest so long as it is limited only to the types of applications that are consistent with an expedited process.

Like many other commenters, SpaceX noted in its comments the important role that smallsats can play in developing new technologies and providing niche services, as well as the growth in prominence of such missions. These systems should be encouraged, not only for innovation’s sake, but to meet the nation’s economic and leadership objectives set out in the recently-updated National Space Policy.¹ Yet SpaceX also urged the Commission to strike an

¹ See, e.g., Space Policy Directive – 3, National Space Traffic Management Policy, Section 4(c) (June 18, 2018) (stating goals, including that “the U.S Government should streamline processes and reduce regulatory burdens that could inhibit commercial sector growth and innovation”), available at <https://www.whitehouse.gov/presidential-actions/space-policy-directive-3-national-space-traffic-management-policy/>.

appropriate balance between promoting smallsats generally and establishing sensible rules that safeguard space and spectrum usage by all those who seek to provide services to the public.

The Commission has already suggested a critical step toward that balance by identifying a distinct group of smallsat applicants that merit a different regulatory approach than the long-standing satellite-related procedures in Part 25 of the Commission's rules. Carefully defining which smallsats qualify for this group is particularly important given the huge increase in the number and diverse types of smallsats forecast to be launched in the near future,² which could strain staff licensing resources. As the Commission recognizes, the qualification rules for streamlined processing must align with the goal of more efficient, faster review of smallsat applications by the Commission.³ To this end, the Commission proposed criteria predicated on cases that avoid the need for complex technical analyses, as compared to those that would not be consistent with expedited review, due to greater complexity, controversy, or the need for significant attention from the Commission staff.⁴

In evaluating the comments filed in this proceeding, SpaceX urges the Commission to bear in mind the specific goal of creating a streamlined process for licensing smallsats, but only in appropriate cases. Under the Commission's proposed approach, however, cases that still require a more thorough review would not be cast aside simply because they are not well-suited for expedited review. Instead, those smallsat proposals that fall outside the criteria for streamlined

² See *Streamlining Licensing Procedures for Small Satellites*, FCC 18-44, ¶ 7 (rel. Apr. 17, 2018) (“*NPRM*”) (forecast of nearly 2,400 smallsat launches between 2017 and 2023); Jeffrey Hill, “Analysts Predict a Golden Age for Cubesats . . . If they Can Get Launched,” *SATELLITE TODAY* (July 12, 2018) (more than 3,500 smallsats projected for launch by 2028), available at <https://www.satellitetoday.com/innovation/2018/07/11/analysts-predict-a-golden-age-for-cubesats-if-they-can-get-launched/>.

³ *NPRM* ¶ 25.

⁴ See, e.g., *NPRM* ¶ 39 (proposing not to consider smallsats that have a human casualty risk above 0, since consideration of alternatives “is likely to involve detailed factual inquiry and potentially complicated legal and financial arrangements, is not consistent with the proposed streamlined process”).

consideration may still avail themselves of the Commission's existing procedures for licensing small satellites (such as experimental licensing).⁵ Accordingly, the Commission need not expand this supplementary alternative to accommodate applications that involve complex analyses, contentious issues, or other aspects that are not consistent with a simplified and expedited processing regime, as those applications would and should be handled through more appropriate licensing channels.

For example, the Commission proposed criteria to qualify for the new streamlined procedures that would exclude applications for small satellite systems without propulsion capability that propose to deploy above the altitude of the International Space Station ("ISS").⁶ It did so based on the tentative conclusion that more limited maneuvering capabilities, such as those relying primarily on drag, would "likely require closer Commission review" to determine whether they were sufficient to safeguard the ISS and other manned spacecraft.⁷ Yet one can envision inventive strategies for maneuvering a smallsat without the use of propulsion, and the ensuing debate as to the sufficiency of those strategies to protect other operations in space. One can also anticipate that technological innovations will make smallsat propulsion more commonplace, and potentially change the public interest calculus on this issue over time.⁸ Sorting through such

⁵ Several commenters asked the Commission to confirm that these alternatives will remain available alongside the proposed streamlined processing regime. *See, e.g.*, Comments of University Small-Satellite Researchers at 6-7; Comments of Analytical Space, Inc. at 5-6; Comments of The Boeing Company at 2-3. All comments referred to herein were filed in IB Docket No. 18-86 on July 9, 2018.

⁶ *See NPRM* ¶ 34.

⁷ *Id.*

⁸ *See, e.g.*, Comments of Phase Four, Inc. at 2 (discussing smallsat propulsion technologies that are available now, and in some cases have flight heritage); Jeff Foust, "More Startups are Pursuing Cubesats with Electric Thrusters," SPACE NEWS (July 23, 2018) ("New electric thruster systems can increasingly fit into cubesat form factors and cubesat budgets, and without the restrictions of chemical propulsion," and a new generation of startups is pursuing this technology), available at <https://spacenews.com/more-startups-are-pursuing-cubesats-with-electric-thrusters/>.

complex and contentious issues is time-consuming, and thus not compatible with expedited processing.

The Commission rightly has sought to honor the intent of offering streamlined licensing for those smallsat projects that meet a clear and appropriate set of qualification criteria. It should not weaken those criteria – and the underlying goal – simply to capture a larger set of potential small satellite proposals that have more appropriate licensing mechanisms available that are better geared for consideration and resolution of more complex or controversial smallsat applications.

Respectfully submitted,

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