

ALERT

FCC's Space Bureau Seeks to Refresh the Record on Orbital Debris Mitigation and Space Sustainability

May 3, 2024

On May 2, the Federal Communications Commission's (FCC) Space Bureau issued a Public Notice seeking to refresh the record on orbital debris mitigation rule changes originally proposed in a Further Notice of Proposed Rulemaking (FNPRM) released in April 2020. The FNPRM sought comment on the total probability of collisions with large objects, the probability of accidental explosions, maneuverability, post-mission orbital lifetime, casualty risk assessment, indemnification, and whether to require a performance bond for successful disposal.

A lot has happened in the space industry since the FNPRM's comment period closed more than three years ago: the launch of thousands of new non-geostationary orbit (NGSO) satellites; the development and deployment of several in-space servicing, assembly, and manufacturing (ISAM) missions, leading the Commission to adopt a Notice of Proposed Rulemaking on a new licensing framework for ISAM; and NASA's updates to its orbital debris mitigation guidance, just to name a few. As a result, the Commission is asking interested parties to submit additional comments and new information in response to the 2020 FNPRM, as well as information on the state of the industry and the orbital debris environment.

Comments will be due 30 days after publication in the Federal Register and reply comments will be due 15 days thereafter.

Specific Topics for Comment

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While seeking broad comment on space sustainability and orbital debris mitigation developments, the Public Notice requests specific comment on:

Evaluating Collision Risk on a System-Wide or Individual Basis. In the FNPRM, the Commission sought comment on whether to analyze collision risks within a multi-satellite NGSO system on a system-wide (i.e., based on *all* satellites in the system) or on an individual (i.e., per-satellite) basis.

Collision Risk Metrics. The FNPRM sought comment on the proposal to use the U.S. Orbital Debris Mitigation Standard Practices' (ODMSP) 0.001 probability of collision metric as a way to assess collision risk for systems. Complying with this probability would be considered a "safe harbor," and systems that exceeded this 0.001 probability metric would be subject to additional review by the Commission.

Safe Harbor vs. Bright-Line Rule and Relevant Factors. The Commission also requested comment on whether to evaluate collision risk using a safe harbor approach, as described above, or a bright-line rule, as well as what factors might be relevant for establishing those rules (e.g., satellite maneuvering capabilities, orbital lifetime, constellation size, etc.). The Commission likewise asked whether it should make a bright-line distinction between large constellations and smaller systems in terms of the applicable metrics for collision risk assessment, or if it should attempt to specify a scalable metric for both types of systems.

Assessing Reliability of Post-Mission Disposal. The Commission also seeks comment on other ideas that have been raised since the release of the FNPRM, including a 100 "object-years" metric, which could be used to assess the risks that may arise when post-mission disposal fails. Specifically, the Commission asks whether this "object-years" metric would be suitable for assessing the reliability of post-mission disposal plans, and if so, what the threshold should be. It also seeks comment on alternatives to the object-years metric and recommendations for how to implement and administer its post-mission disposal risk assessment framework.

If you are interested in filing comments or have questions, please contact one of the attorneys listed on this alert or the Wiley attorney who routinely handles your FCC matter.