



1444 Eye Street NW, Suite 410
Washington, D.C., 20005
15 April 2020

The Honorable Ajit Pai
Chairman
Federal Communications Commission
445 12th Street, SW
Washington, D.C., 20554

Dear Chairman Pai,

On behalf of the Commercial Spaceflight Federation (CSF) and our more than 85 member organizations, I write to express concern about the Federal Communications Commission's (the Commission) draft *Mitigation of Orbital Debris in the New Space Age* Report and Order and Further Notice of Proposed Rulemaking circulated on April 2, 2020.

CSF and its member organizations share the Commission's views regarding the importance of ensuring sustainable use of low-Earth orbit, a limited and shared resource, and mitigating orbital debris risk. However, CSF is concerned that the Commission has not fully considered the negative impacts that the proposed draft Order will have on the U.S. small satellite and new space industry. We respectfully urge the Commission to delay consideration of adopting this proposed Order until the Commission obtains more information regarding the potential impact that these rules will have on U.S. companies, including their ability to be successful and compete in an international marketplace and to continue to support critical USG missions.

1. The draft Order proposes new compliance rules for satellites that are far more aggressive than the well-established standards employed by other expert Federal agencies and will greatly increase costs for U.S. licensed satellite operators. This regulatory compliance burden is totally at odds with the Commission's goal—and more, broadly, the wider goals of the Administration—of reducing regulatory burden in order to facilitate U.S. competitiveness in the space sector.
2. The draft Order lacks clarity and transparency that private sector companies require in order to be successful. The draft Order uses the phrase “case-by-case” basis dozens of times throughout, creating significant regulatory ambiguity and business uncertainty. The regulatory uncertainty will substantially diminish private sector investment in U.S. licensees at a most unhelpful time. Implementation of the draft Order would create significant challenges for U.S. satellite operators to plan, implement, and raise capital for those satellite systems that the Commission has otherwise acknowledged as critical for closing the digital divide, among other things.

3. The draft Order has a particular impact on small satellite and cubesat operators as a result of the ambiguous requirement for “sufficient maneuverability” on all non-geostationary satellite orbit (NGSO) satellites or systems deployed above 400 km. The lack of clarity on what constitutes “sufficient maneuverability” is problematic for small satellite and cubesat operators that operate smaller spacecraft (*e.g.*, 3U satellites) that do not have the physical capability to support a robust propulsion system. Small satellite and cubesat operators utilize creative and effective techniques, such as differential drag, to control their space assets, which the draft rules seem to imply may not meet the “sufficient maneuverability” requirement. In addition, the draft Order would require that U.S. satellite operators ensure their satellites have propulsion systems that would satisfy the ambiguous requirement of “sufficient maneuverability” within two years. The impact on the domestic small satellite and cubesat community would be significant: Small satellite operators would need to redesign their satellites and constellations to include active propulsion systems and would have only a brief 2-year period to do so; this is no small lift and for some may be impossible. This regulatory mandate would require companies to redirect substantial and limited funds and resources away from existing or planned business plans and could potentially weaken the competitiveness of U.S. companies. If unable to comply, many of these companies would no longer be able to continue their direct support of USG missions.
4. The indemnification requirements in the draft Order will also have a negative impact on the viability of the U.S. space industry generally and on the small satellite and cubesat operators in particular. The rules provide no clear guidance or calculations for the level of indemnification. Such unlimited liability is very difficult for small operators and would increase costs for companies that already have tight margins. Rather than imposing such a burdensome rule on operators, the Commission should maintain its practice of reviewing debris mitigation plans and end of life procedures without altering the liability of the satellite industry. This is especially the case when the legal basis for the Commission to impose such a requirement on licenses is far from clear.
5. The draft Order also includes a new metric for collision avoidance, applied system-wide rather than on a per satellite basis, that would supersede the well-established and stringent standard of 1 in 1,000 per satellite, thus increasing the requirement on operators by orders of magnitude. This rule may result in little if any improvement to space safety while significantly deterring operators from deploying satellites with enhanced safeguards as capabilities improve over time. Moreover, the unintended consequences would not only inhibit U.S. satellite operators’ ability to compete in a global market but would, in fact, deprive the operational environment from the benefits of technological advancements that do improve space safety, connectivity, and capability.
6. The performance bond proposed in the Further Notice would be especially harmful to smaller or newer satellite operators. This proposal would materially increase operating costs for satellite operators both in terms of the yearly cost to maintain the bond and the opportunity cost of tying up for years millions of dollars in collateral. These new costs would be especially problematic for new space companies, and accordingly, the proposal, if adopted, would likely decrease innovation and the development of the space industry.

If enacted, this rule would have serious and negative consequences on the U.S. satellite industry, likely driving operators offshore to be licensed elsewhere and significantly benefiting foreign licensees over domestic companies. This outcome would be fundamentally at odds with the Commission's objectives and contradict the Administration's Space Policy Directives (SPDs) as set forth in SPD-2 to "minimize uncertainty for taxpayers, investors, and private industry" and "encourage American leadership in space commerce."

Although CSF applauds the Commission's continued efforts to promote and encourage safe space navigation and to ensure we are all responsible space actors, the proposed Order creates more problems than it solves. The global small satellite industry is disrupting the status quo in space and is still nascent. This disruption has occurred by the US commercial small satellite industry and this domestic industry is the global leader in the maturity and sophistication of this sector. Commercial small satellite companies are already directly supporting USG operational needs today. The implementation of this proposed Order would force these companies to rapidly redesign their systems that both diverts attention away from product/service improvements to capture global market share and, through driving up the satellite and operational costs, will compromise the ongoing competitiveness of these companies as compared to their international competitors. This could force U.S. small satellite companies out of business and could also have a crippling impact on universities and educational space programs.

As the United States is dealing with the challenges of overcoming the COVID-19 pandemic, now is not the time to impose new ambiguous and restrictive regulations onto the satellite industry. The world is dealing with an unprecedented global pandemic and a global financial crisis. The imposition of these proposed rules would add a significant economic burden on new space and small satellite companies, which are particularly impacted by economic and investment uncertainty.

The Commercial Spaceflight Federation, as the leading trade association for the commercial space industry, respectfully requests that this draft report and Order on Mitigation of Orbital Debris in the New Space Age not be adopted at the April 23rd meeting, but instead be set aside to a future meeting to allow additional time to consider the significant impact the proposed rules would have on the U.S. space industry, especially in light of the current economic environment. Establishing orbital debris mitigation rules and policies are vital to safe and productive operations in space, and the challenge must be addressed through cooperation between regulatory bodies, industry, and international partners. However, the solution should not be one that undermines the economic viability of the U.S. space industry. We appreciate your attention to this pressing matter.

Sincerely,



Eric W. Stallmer

President

Commercial Spaceflight Federation

CC: Commissioner Michael O'Reilly
Commissioner Brendan Carr
Commissioner Jessica Rosenworcel
Commissioner Geoffrey Starks
International Bureau