STATEMENT OF
COMMISSIONER MICHAEL O'RIELLY

Re: *Streamlining Licensing Procedures for Small Satellites,* IB Docket 18-86

I am generally supportive of efforts to streamline our licensing procedures for small satellites. This item should provide some helpful relief for the small set of academics, scientists, and entrepreneurs who are looking to test out their innovative ideas via this technology. Although the term "small sats" can also refer to those that make up the large NGSO fleets, today's item is intended to streamline processes for smaller systems – those with fewer satellites, used for a shorter duration, at far lower cost.

Facilitating the launch of multiple small sats, however, does raise the lingering and unresolved issue of orbital debris once again. Space used to be reserved for a handful of players, but now with cost barriers reduced, technology improved, and commercialization taking hold, the practice of launching satellites has become commonplace. In fact, we do not know exactly which or how many entities will avail themselves of the opportunity we provide today, but with it comes responsibility. All participants must be answerable stewards; otherwise, space junk from launches, old satellites, or even mishaps could turn space into a hazardous, and potentially unusable, obstacle course.

Even before the launch activity for the huge NGSO constellations and these small sats really gets underway, it has already been estimated that there are 128 million pieces of space debris between 1 mm to 1 cm in size in space; 900,00 objects from 1 cm to 10 cm; and 34,000 pieces larger than 10 cm.[1] And, this is likely to increase. One large NGSO operator recently launched 60 satellites, but three didn't work quite as planned.[2] This is not a criticism in any way – sometimes technology doesn't match expectations and these satellites are being monitored by the company for deorbiting. But this is just one example of many more mishaps likely to come. Given the Commission's adoption of rules that could result in thousands of satellites being put into orbit and industry's activity in starting to launch,[3] we cannot sidestep this issue any further. This is why the Commission started an orbital debris proceeding. While I understand that other federal agencies with different expertise have been considering this matter and the Commission is part of an interagency working group, it makes most sense to consider the issue expeditiously, not two years from now. If others fail to act, the Commission may have to shoulder the responsibility.

Additionally, the Commission should look at ways to improve interagency coordination when federal and commercial entities share spectrum bands. There is information in the record suggesting that coordination is slowing down the commercial sector, resulting in missed launches, delays, and lower service quality. Since this issue affects more than just small sats, the Commission does not take any action to address it today. However, the coordination process for federal and non-federal satellite spectrum should be fully reviewed and appropriately improved as soon as possible.

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[1] European Space Agency, *Space Debris by the Numbers*, https://www.esa.int/Our_Activities/Space_Safety/Space_Debris/Space_debris_by_the_numbers (last visited Aug. 1, 2019).

[2] Caleb Henry, *Contact Lost With Three Starlink Satellites, Other 57 Healthy*, SPACENEWS, July 1, 2019, https://spacenews.com/contact-lost-with-three-starlink-satellites-other-57-healthy/.

[3] *See* Amy Thompson, *SpaceX Launches 60 Starlink Satellites on Thrice-Flown Rocket, Sticks Landing*, SPACE.COM, May 24, 2019, https://www.space.com/spacex-launches-60-starlink-internet-satellites.html; Paul Brinkmann, *Communication Satellite Firm OneWeb Plans to Start Monthly Launches in December*, UPI, July 22, 2019, https://www.upi.com/Top_News/US/2019/07/22/Communications-satellite-firm-OneWeb-plans-to-start-monthly-launches-in-December/7901563812391/.