RESILIENT NAVIGATION and TIMING FOUNDATION

RNT Foundation
4558 Shetland Green Rd
Alexandria, VA 22312

March 17, 2018

The Honorable Ajit Pai
The Honorable Mignon Clyburn
The Honorable Michael O'Rielly
The Honorable Brendan Carr
The Honorable Jessica Rosenworcel

Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: *Ex parte* presentation in IB Docket Nos. 11-109 and 12-340

Dear Chairman Pai and Commissioners Clyburn, O'Rielly, Carr and Rosenworcel:

The Resilient Navigation and Timing Foundation (www.RNTFnd.org) is a nonprofit, public benefit corporation that helps protect critical infrastructure by promoting resilient navigation and timing worldwide. We share your goal of protecting the nation's critical positioning, navigation, and timing (PNT) services delivered by GPS, while also maximizing the efficient use of spectrum. This requires protecting, toughening, and augmenting our nation's PNT services.

We oppose any efforts that will result in harmful interference to PNT services delivered by GPS that are relied on by hundreds of millions of American citizens and businesses every day. To that end, in your deliberations in the above-referenced dockets, please carefully consider the attached report:

Assessment to Identify Gaps in Testing of Adjacent Band Interference to the Global Positioning System (GPS) L1 Frequency Band

The report was produced by the National Space-Based Positioning, Navigation, and Timing National Engineering Forum, a federal government entity. It was downloaded from https://www.gps.gov/spectrum/ABC/

The goal of the report was to assess the adequacy of various tests purporting to gauge the impact of Ligado's proposed operations on GPS users. The report's Executive Summary states:

> "The gap analysis concluded that three of the five tests evaluated during this effort included sufficient scope and methodology in compliance with the PNTAB's set of recommendations, namely the DOT ABC, NPEF, and FCC TWG tests. While some questions remain largely unanswered despite the substantial scope of these tests, the gap

analysis concluded that the results from these three tests are sufficient and appropriate to inform spectrum policy makers on the major impacts of the proposed LTE network on GPS receivers. The FCC TWG and NPEF tests both concluded that there are no feasible mitigations to resolve the adjacent band interference issues introduced by the proposed network. Correspondingly, the DOT test results briefed during the March 2017 ABC public workshop revealed the power levels that GPS and GNSS receivers can tolerate from interference sources in the adjacent band in an effort to inform the enforcement of a GPS interference protection criterion. GPS users rely on L-band spectrum to receive the signals transmitted from the GPS constellation, so the preservation of the spectral environment is fundamentally critical to GPS operations."

Sincerely,

Dana A. Goward
President

cc: Rachael Bender
Louis Peraertz
Erin McGrath
Will Adams
Umair Javed