

RE: IB Docket No. 11-109

Request for comments on GPS protection.

In reading the issues surrounding the Petition by LightSquared concerning the potential interference issues to GPS systems, I find this to not be in the best interests of the greater public. As a Licensed Commercial Operator (PG0911390), a Licensed Amateur Extra Radio Operator (N9VW), an employee of a large Wireless operating company and a Volunteer with a Fire & Rescue communications group I have come to the following conclusions.

The request for comments asks if GPS receivers should be provided protection from harmful interference. To that question I would answer an emphatic yes. The number of services that depend on the GPS system in today's world is very large. Besides the general public's use of GPS for navigation other services will be impacted as well.

Wireless services utilize GPS signals to synchronize their networks. This is prevalent in many different services such as CDMA timing for broadband mobility management, Wireless E-911 position location, network timing, transmitter synchronization for simulcasting of Public Safety systems and vehicle tracking for first responders just to name a few. It is very easy to see that the impacts to these services would be dramatic to the point of endangering public safety. The failure of Public Safety systems could potentially impact interoperability between first responders which could act as an impediment to life/safety of the responders and the public.

Vehicle tracking services, precision surveying, geologic monitoring and military defense systems, elderly and criminal tracking/monitoring are just a sampling of services that depend on GPS on a daily basis. The economic impact of interfering with these systems is tremendous on many different levels.

GPS receivers are by design meant to pick up very weak signals. The filtering in these systems can best be described as a trade off. On the one hand they need to be designed to remove adjacent offending signals (i.e. LightSquared's proposed usage) while providing adequate sensitivity for very low signal levels to function in the challenging areas where they are operated, be this man made or natural, urban or rural. These systems were all designed based on the knowledge that there would be adjacent signals with the same carrier signal levels as GPS, not many orders of magnitude higher! Having to retrofit or replace all of the deployed GPS systems in use today is nearly impossible logistically and cost prohibitive in today's economy for the vast majority of users.

While I am employed by a large national carrier, not speaking on behalf of them but the industry in general, I can certainly understand and support the need for additional spectrum. In support of the FCC's goals for broadband services and the explosive growth witnessed in the utilization of these services it is imperative that additional spectrum resources be made available. The issue is one of

taking a frequency allocation that was originally designed for Satellite service and repurposing it, for the commercial gain of one company, to the detriment of all services and users that currently rely on GPS services. I feel that this is reckless and irresponsible.

Given the facts presented then by all means “yes”, GPS should be protected from interference!

Sincerely,

Stephen VanWambeck