

October 12, 2011

Marlene H. Dortch, Secretary  
Federal Communications Commission  
Office of the Secretary  
445 12th Street, SW  
Room TW-A325  
Washington, DC 20554

Re: LightSquared Subsidiary LLC Request for Modification of its Authority for an Ancillary Terrestrial Component, IBFS File No. SAT-MOD-20101118-00239; IB Docket No. 11-109

Dear Ms. Dortch,

In a public notice issued September 13, the Federal Communications Commission states “...that additional targeted testing is needed to ensure that any potential commercial terrestrial services offered by LightSquared will not cause harmful interference to GPS operations.” As users of GPS precision equipment in agricultural applications, we believe this additional testing is imperative. We need to know with certainty that these modifications and proposed solutions will work for new and existing precision agriculture equipment.

Our members have invested extensively in GPS precision technology to facilitate the production of an abundant and dependable food supply. Thorough and comprehensive testing, utilizing appropriate protocols, is essential to ensuring agriculture’s continued use of this vital technology. At the end of the appropriate testing process, it is our hope that the results are favorable, making it possible to realize a longstanding agricultural industry goal of expanded rural broadband. That said, this laudable goal must not be accomplished at the expense of precision agriculture.

We noticed in recent public testimony before Congress that key government agencies that rely on GPS all agree that it is unclear whether LightSquared’s revised proposal will protect the government functions administered by these agencies from harmful interference. Agricultural operations that rely extensively on widely deployed GPS receivers and satellite augmentation signals for human safety, productivity, and mitigation of environmental hazards face the same unknown.

LightSquared gave initial assurances that its original proposal would not cause interference to the nation's GPS system. However, government and commercial tests demonstrated conclusively that its original network proposal would cause widespread disruption to GPS service. Since its original plan, LightSquared has proposed network revisions, proposed changes in satellite augmentation signals used for GPS, and announced the development of a new GPS filter – all of which it argues will collectively alleviate all interference problems. Perhaps LightSquared’s most recently proposed remediation efforts will succeed, but they must be proven to succeed through thorough testing before we can support moving forward.

Unfortunately, none of the new proposed solutions have undergone meaningful, independent technical testing. Comprehensive and rigorous testing is absolutely critical. Testing must include laboratory and field analysis of LightSquared's proposed solutions, and must adequately examine the full range of scenarios to ensure that the base stations and handheld devices proposed by LightSquared do not degrade GPS receivers. Any new GPS filter offered as a solution must be thoroughly evaluated to verify both that it prevents harmful interference and to ensure that it does not otherwise degrade the performance of the retrofitted receiver.

To the extent that testing shows that LightSquared's plan to eliminate interference to GPS receivers and augmentation signals has not resolved the problem, the FCC needs to stand by the commitment it made in January 2011 that it will not permit LightSquared to proceed if doing so would harm GPS.

It would be totally unacceptable to expect the GPS community including government users, farmers, and other taxpayers to bear any cost for replacing equipment that ceases to function properly if solutions are found enabling LightSquared to move forward. Any costs associated with retrofitting or replacing GPS receivers must be borne by LightSquared.

For over a quarter of a century, GPS has coexisted in this spectrum neighborhood with multiple other government and commercial spectrum uses including mobile satellite service, radio astronomy and space research services. All these services are highly sensitive uses of spectrum that require a quiet environment. The spectrum has been allocated exclusively for satellite-only service in the FCC's rules, and any use of terrestrial base stations to fill in certain gaps in urban canyons was never intended to authorize a stand-alone, widespread wireless network.

In the agricultural sector, GPS-based technologies are responsible for an estimated \$19 billion in higher annual farm revenue, in addition to considerable safety and environmental benefits. Thus, much is at stake for precision agriculture. This is why comprehensive testing is so important. We greatly appreciate your diligence in properly balancing our need for precision guidance with acceptable approaches for expanding broadband access.

Sincerely,

American Farm Bureau Federation  
American Soybean Association  
American Sugar Alliance  
National Association of Wheat Growers  
National Barley Growers Association  
National Corn Growers Association  
National Cotton Council  
National Council of Farmer Cooperatives  
National Potato Council  
National Sunflower Association  
U.S. Canola Association  
USA Dry Pea and Lentil Council  
USA Rice Federation