August 9, 2011

Mr. Julius Genachowski, Chairman
Federal Communications Commission (FCC)
445 12th Street SW
Washington, DC 20554

Dear Mr. Genachowski:

FCC filing number: SAT-MOD-20101118-00239

I respectfully request the Federal Communications Commission (FCC) to rescind its conditional approval of repurposing the L Band (1525-1559 MHz) radio spectrum, which is adjacent to the radio spectrum used by GPS (1159-1610 MHz), to LightSquared due to that company's plan to broadcast radio signals over a billion times stronger than GPS signals from 40,000 ground stations across the U.S., because their broadcasts would do the following:

- Obliterate GPS-based applications nationwide due to massive interference (http://www.saveourgps.org/interference-studies.aspx)
- Violate the *"Radiofrequency Spectrum and Interference Protection"* section of the *"National Space Policy of the United States of America"* (http://www.whitehouse.gov/sites/default/files/national_space_policy_6-28-10.pdf)

This dramatic repurposing of the radio spectrum next to the spectrum utilized by GPS should not be allowed due to the wide area GPS jamming that would be caused by LightSquared's proposed broadcasts. Therefore, please reevaluate the conclusive evidence from the *"Technical Working Group Final Report into LightSquared Interference with GPS"* (http://www.saveourgps.org/interference-studies.aspx) with the understanding that GPS has become a positioning, navigating, and timing (PNT) infrastructure to the world's inter-related civilization. If LightSquared is allowed to broadcast its signals across the U.S., the following GPS-based applications (http://www.gps.gov/applications/), which our society depends upon, would be obliterated:

Timing	**Navigating**	**Positioning**

• Synchronization of:
  ○ Communication systems
  ○ Electrical power grids
  ○ Financial networks
  ○ Networked computers
• Time stamping on banking and business transactions
• Earthquake monitoring and tsunami warning
	• Safety of life:
	  ○ Precision approaches to airports and preferred route utilization between airports that maximizes safety, reduces fuel consumption, and saves time
	  ○ 9-1-1 response
	  ○ Disaster management
	• Machine control:
	  ○ Road construction, building site preparation, & mining
	  ○ Positive Train Control (PTC)
	  ○ Precision agriculture
	• Fleet management (auto, marine, aviation, & rail)
		• Surveying, mapping, and engineering
		• Environmental monitoring
		• Forestry
		• Utility management
		• Remote sensing (e.g. agriculture to national security)

Consequently, the amount of jobs that would be created by LightSquared to build its towers and run its system would be dwarfed by:

- The jobs lost by those who directly utilize GPS
- The chaos it would cause to our civilization regardless of whether or not the average person is aware of our society's dependence on the GPS PNT infrastructure

Therefore, please entirely stop this repurposing approval process by forbidding LightSquared and any other company from re-submitting a modified version of LightSquared's plan, because the filters on even the most protected GPS receivers can only protect them from adjacent signals that are hundreds of thousands of times more powerful than the GPS signal not a billion times more powerful. In other words, please do not permit LightSquared or any other company from being able to implement a LightSquared like plan, because there is no way to prevent such massive interference.

In addition, please make it clear to LightSquared and its investors that proceeding ahead of the FCC assessment of the technical working group's study, which documented overwhelming evidence of massive interference from LightSquared's broadcasts, has been at LightSquared's own risk.

Although the national goal of increasing our capacity for wireless broadband is important, it should not be done in a manner that would obliterate our society's GPS PNT infrastructure.

Thank you for your consideration.

Respectfully,

Curt D. Johnson