

# Coalition of Geospatial Organizations

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The Honorable Julius Genachowski, Chairman  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

July 27, 2011

**Re:RE: IB Docket 11-109 and IB Docket File No. SATMOD2010111800239**

Dear Mr. Genachowski:

I am writing to you on behalf of The Coalition of Geospatial Organizations (COGO), a coalition of 15 national professional societies, trade associations, and membership organizations in the geospatial field, representing more than 35,000 individual producers and users of geospatial data and technology. We appreciate this opportunity to comment on the recently completed final report of the Technical Working Group regarding the potential harmful interference to GPS users from LightSquared's terrestrial transmissions.

The stakeholder groups, listed below, that make up COGO speak with one voice wherever possible on geospatial data and policy issues. COGO only takes public policy positions with a unanimous vote of its member organizations. In this regard, COGO seeks to express its urgent and critical concern regarding the issues under consideration by the Commission in the referenced proceeding.

When the FCC on January 26, 2011 granted a conditional waiver to LightSquared to operate a high power ground-based broadband service in the space radio frequency band next to GPS operations, it solicited public comment. COGO commented to the FCC on this matter on June 15, 2011.

[http://www.cogo.pro/uploads/Revised\\_LSL2-299049\\_Letter\\_v3.pdf](http://www.cogo.pro/uploads/Revised_LSL2-299049_Letter_v3.pdf)

The final report of the Technical Working Group shows significant harmful interference to a broad range of GPS applications, including: mapping, geographic information systems (GIS) and surveying, as well as other engineering, resource, law enforcement, consumer, navigation, emergency response, aviation, and scientific applications – all of which negatively impact the geospatial community.

If GPS is not fully available, in a clear, consistent and unencumbered manner, the impact to COGO member organizations will be extremely significant and costly. The current, accurate geospatial information the public and businesses expect to be readily available would become extremely and unnecessarily expensive to collect and the time it would take to collect such data through non-GPS means would make much data obsolete by the time it becomes available to users.

The Technical Working Group's team on High Precision Networks and Timing found there would be harmful interference with high precision GPS receivers – particularly those used in aviation and geospatial activities. As a community that not only conducts surveys using GPS, but also flies satellites and aircraft to collect imagery and other airborne and spaceborne sensing equipment, COGO member organizations would be significantly impacted by this interference. The LightSquared original rollout configuration plan would have caused harmful interference to these receivers beyond 2 km from each tower. In the LightSquared recommendation to use the lower 10 MHz channel, harmful interference is observed at 1.2 km from each tower, with complete loss of high accuracy positioning within one-half mile of any tower. When considering typical cell tower spacing, a mobile GPS user operating in an urban area covered by LightSquared terrestrial

operations would potentially be within a quarter- to a half-mile from a tower. This means that harmful interference could be expected to blanket large areas of the U.S., including under the lower 10 MHz-only proposed terrestrial broadband operations.

Adding to the cost of data collection through utilization of alternative technologies, methodologies and procedures to avoid LightSquared interference with GPS is not a viable option for the geospatial community. Given the hundreds of millions of dollars in GPS-enabled or dependent equipment, receivers and devices that have already been purchased, approving a LightSquared application that would result in all such existing equipment, receivers and devices needing to be retrofitted would be an unreasonable, expensive and impractical consequence for the geospatial community.

COGO respectfully urges that the FCC deny any LightSquared application, unless and until accepted and unequivocal engineering tests are submitted that demonstrate such proposed system can operate with no interference with high precision GPS. Any FCC approval of a LightSquared application must ensure sustainment of the national GPS utility and proven positioning and navigation information, as well as continuing innovation that benefits the Nation and that delivers the operational performance on which our COGO organizations and their members depend.

Respectfully submitted,



Geney Terry, GISP, MGIS  
2011 COGO Chair

- American Congress on Surveying and Mapping (ACSM)
- American Society for Photogrammetry and Remote Sensing (ASPRS)
- Association of American Geographers (AAG)
- Cartography and Geographic Information Society (CaGIS)
- Geographic Information Systems Certification Institute (GISCI)
- International Association of Assessing Officers (IAAO)
- Management Association for Private Photogrammetric Surveyors (MAPPS)
- National States Geographic Information Council (NSGIC)
- United States Geospatial Intelligence Foundation (USGIF)
- University Consortium for Geographic Information Science (UCGIS)
- Urban Regional Information Systems Association (URISA)

