



August 8, 2011

**FILED ELECTRONICALLY**

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

**Re: Reply to National Space-based PNT Advisory Board  
Call Sign S2358  
LightSquared Application for Modification  
FCC File No. SAT-MOD-20101118-00239  
IB Docket No. 11-109**

Dear Ms. Dortch:

On August 3, 2011, a letter from the National Space-based PNT Advisory Board (the "Board") was filed in the abovementioned docket. The letter reiterates many of the points the GPS manufacturers have already made in this proceeding, albeit under the apparent authority of a Federal Advisory Committee. The Board's recommendation, however, is not supported by the record of this proceeding and, therefore, should be given no weight by the Commission.

**The Advisory Board Did Not Accurately Represent Its Authority**

The Board is a Federal Advisory Committee that advises the National Executive Committee for Space-Based Positioning, Navigation, and Timing (PNT EXCOM) an interagency group that advises and coordinates federal departments and agencies on matters concerning GPS. The Board is sponsored by NASA and includes members from private industry and academia. The Board's charter, in accordance with the requirements of the Federal Advisory Committee Act, states that it "will operate solely in an advisory capacity," and that it "will provide advice, as directed by the PNT EXCOM and through NASA, on U.S. PNT policy, planning, program management, and funding profiles in relation to the current state of national and international space-based PNT services."

The letter purports to represent a "unanimous position" of the Board adopted at a public meeting June 9-10, stresses the "independent" nature of the members of the Board, and clearly relies for its credibility on the authority of the Board as a Federal Advisory Committee. The letter does not, however, explain the extent to which their advice has been adopted by NASA or the PNT EXCOM. The positions of Federal Advisory Committees are not the same as actual policy adopted by an agency of the Federal government. Agencies are free to reject or ignore positions taken by

Federal Advisory Committees. Nevertheless, the opinions of Federal Advisory Committees are presumed to be credible because of the requirements they must meet to be objective and transparent advisors to the Federal government.

The Board should have explained the limits of its charter and its authority to send a letter expressing a position in a contested Commission proceeding, particularly given that several companies represented on the Board are separately participating in the proceeding. Absent such an explanation, the Commission should not give the letter any weight.

### **The Letter Does Not Accurately Represent The Nature Of LightSquared's Authorization**

The Board letter states that "GPS would suffer great harm from the proposed LightSquared terrestrial operation as indicated in the LightSquared conditional waiver approved by the [FCC] in January," and strongly recommends rescinding the waiver. In doing so, the Board repeats a misunderstanding about the nature of the January waiver.

The January waiver had nothing to do with the interference at issue in this proceeding. The public record shows that the Commission first approved rules allowing terrestrial operations in the L-band in 2003. LightSquared received its authorization to conduct terrestrial operations in 2004. LightSquared has had the legal right to build the network it is building today – with the same number of towers and power levels -- since 2005. The interference at issue today arises because of sensitivity of GPS receivers to LightSquared's base stations, operating at the power level authorized in 2005.

The Board mistakenly asserts that the January waiver's "change in the structure of the MSS band" creates interference. The Board does not explain how this is possible, given the January waiver did nothing to change the number of LightSquared base stations or their authorized power levels.

This focus on the January waiver, in the face of the public record, echoes the oft-repeated position of the GPS manufacturers that this interference issue has arisen only within the last 8 months. But the GPS manufacturers adopted this position for a specific reason: to distract the Commission from the fact that GPS manufacturers did nothing to adapt their receivers to terrestrial operations first authorized in 2003, and for which they knew all relevant power levels in 2005. By accepting the GPS manufacturers' misrepresentation of the public record, the Board unfortunately lends its credibility to the GPS manufacturers' effort to continue to avoid responsibility for its own flawed decision-making.

### **The Board Makes Assumptions That Are No Longer Relevant**

Although the letter states that it reflects a "unanimous position" adopted at a meeting June 9-10, the letter mentions test results that were not filed publicly until June 30. The letter does not, however, give any indication of how this subsequent information could have informed a position taken three weeks before.

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Aside from this confusion as to when and how the Board's position was taken, the Board makes assertions about licensed power, retrofits, the lower 10 MHz, and aviation that are either incorrect or no longer relevant. The letter states that the tests "seriously understate expected effects" because they were conducted "at 1/10<sup>th</sup> of licensed power (1548 watts)." This is a position that has been taken by the GPS manufacturers and it is flatly incorrect. In fact, LightSquared's proposal specifically commits to use the power authorized by the FCC in 2005, which is the power that was tested: 32 dBW or approximately 1500 watts. Here again, by uncritically repeating a position taken by the GPS manufacturers, the Board has unfortunately compromised its credibility.

The Board's letter discusses precision receivers at length, but appears to assume LightSquared has ignored these receivers. It has not. LightSquared's proposal explicitly acknowledges that some precision receivers could be impacted by operations in the lower 10 MHz. LightSquared has never characterized the impact on precision receivers as insignificant and proposed funding the development of receivers that can operate without interference. This is not a proposal for a "simple retrofit," but rather a proposal of a cooperative process whereby GPS functionality can be preserved and even improved. Notably, the Board fails to acknowledge in any way the improvements that could be achieved by LightSquared's proposals to place L-band augmentation signals in a specific part of the L-band and assure that placement for the duration of our license – a significant advance over the current commercial arrangements for the service.

The Board simply asserts that there will be "immediate deleterious effects on aviation," but has ignored RTCA's conclusions that the lowest 5 MHz of LightSquared spectrum can be operated without interference with aviation receivers, the next 5 MHz requires further study to confirm this, and that aviation receivers performed substantially better than minimum performance standards when actually tested. Moreover, the Board assumes that no steps would be taken to coordinate operations around WAAS receivers, and indeed does not mention the fact that LightSquared is, today, required to operate under stricter power limits near airports.

## **CONCLUSION**

For the reasons stated above, the Commission need not give any weight to the Board letter.

Respectfully submitted,

/s/Jeffrey Carlisle

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