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DEPARTMENT OF TRANSPORTATION

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February 27, 2012

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FCC Mail Room

Commission's Secretary
Office of the Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Docket Number 11-109

To Whom it May Concern:

PennDOT supports the Federal Communications Commission's (FCC) action to vacate the waiver that was previously granted to LightSquared, LLC to operate a terrestrial network in the frequency band adjacent to those used for GPS signals. This support is due to the same concerns that we expressed previously in our letter to the FCC dated July 21, 2011 (attached).

Any questions regarding this matter should be directed to Douglas Tomlinson, P.E., Chief, Traffic Operations Section, at (717) 787-3657 or via e-mail at dtomlinson@pa.gov.

Sincerely,

Charles C. Goodhart, Director
Bureau of Maintenance and Operations

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FCC Mail Room

July 21, 2011

Commission's Secretary
Office of the Secretary
Federal Communications Commission
445 12th St.
Room TW-A325
Washington, DC 20554

To Whom It May Concern:

This letter is to provide comments from the Pennsylvania Department of Transportation (PennDOT) regarding the Lightsquared Technical Working Group report, IB Docket Number 11-109.

PennDOT has taken the position that any technology that risks GPS interference should be deemed unacceptable. After reviewing various reports and having conversations with our wireless carriers, the Department feels that there is enough risk with the proposed LightSquared system that current GPS performance will be affected. Consequently, PennDOT is recommending that LightSquared not be allowed to proceed forward with their proposed 4G LTE system until there is definitive, 3rd party validation that the system will have no impact to the current GPS infrastructure. PennDOT, like many other agencies and private sector companies, relies heavily on GPS technology. If GPS functionality is compromised, the following aspects of PennDOT's operations will be affected:

Traveler Information – Currently, PennDOT is in the initial stages of creating a 511PA mobile application to provide on-the-go information to the traveling public. The backbone of the application is the GPS chip found in smartphones. Without GPS functionality, this application will not be able to recognize the user's location and provide the appropriate information. Additionally, GPS is a key component of the Department's Intelligent Transportation System (ITS) strategic direction. It is PennDOT's ultimate goal to get traveler information into portable and in-car navigation systems so travelers can be made aware of incidents before they reach them and can take the appropriate actions.

Maintenance – Currently, GPS is utilized in PennDOT's maintenance fleet Automatic Vehicle Location (AVL) system. Without the GPS functionality, PennDOT will not be able track their equipment/resources as efficiently, resulting in an inevitable loss of productivity. The AVL system is essential during winter operations and emergency management situations.

Construction – GPS technology is currently used by PennDOT surveyors. Additionally, numerous state contractors employ GPS when performing field work on state construction contracts.

Any questions regarding this matter should be directed to Douglas Tomlinson P.E., Chief, ITS Division, at 717-787-3657 or via email at dtomlinson@state.pa.us.

Sincerely,

for Daryl R. St. Clair, P.E., Acting Director
Bureau of Highway Safety and Traffic Engineering

Enclosure



PUBLIC NOTICE

Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

News Media Information 202 / 418-0500
Internet: <http://www.fcc.gov>
TTY: 1-888-835-5322

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MAR - 8 2012

DA 11-1133
June 30, 2011

FCC Mail Room

COMMENT DEADLINES ESTABLISHED REGARDING THE LIGHTSQUARED TECHNICAL WORKING GROUP REPORT

IB Docket No. 11-109

Comment Date: July 30, 2011

Reply Comment Date: August 15, 2011

On June 30, 2011, LightSquared Subsidiary LLC (LightSquared) submitted a final report of the technical working group co-chaired by LightSquared and the United States Global Positioning System (GPS) Industry Council (USGIC)¹ and organized in response to a condition in FCC Order and Authorization, DA 11-133 (released January 26, 2011).² The condition required that LightSquared help organize and participate in a technical working group “that brings LightSquared and the GPS community together” to address potential interference issues recently raised by members of the GPS community.³ The Order “envision[ed] a working group in which cooperative and candid discussions can ensue, and where information, including proprietary information, can be shared among the participants with appropriate measures in place to protect the confidentiality of that information.”⁴ The condition required submission of a final report that includes the working group’s analyses of the potential for overload interference to GPS devices from LightSquared’s terrestrial network of base stations, technical and operational steps to avoid any such interference, and specific recommendations going forward to mitigate potential interference to GPS devices. Among other things,⁵ the Order also made clear that, “as a condition of granting this waiver, the [working group] process . . . addressing the interference concerns regarding GPS must be completed to the Commission’s satisfaction before

¹ The report is available through the FCC’s Electronic Comment Filing System (ECFS) in IB Docket No. 11-109.

² 26 FCC Rcd 566, 588, ¶ 48 (Int’l Bur. 2011).

³ 26 FCC Rcd at 586, ¶ 41.

⁴ Id.

⁵ The Order also, for example, required LightSquared to ensure substantial market availability of mobile satellite service by requiring LightSquared to dedicate at least 6 MHz of L-band spectrum, nationwide, exclusively to satellite service. 26 FCC Rcd at 583-584, ¶ 36.

LightSquared commences offering commercial service pursuant to this waiver on its L-band MSS frequencies.”⁶

The technical working group effort identified significant technical issues related to potential LightSquared operations in the upper portion of the L-Band, which is most proximate to the band used by GPS. Over more than three months, the technical working group tested more than 130 representative devices in seven different receiver categories, in a number of different test environments. The tests demonstrated potentially significant interference between LightSquared operations in the upper portion of the band and various GPS receivers. The tests also identified some interference issues in the lower 10 MHz portion of the band. The overall conclusion of the testing is that transmissions in the upper 10 MHz channel — the channel nearest to the 1559-1610 MHz GPS band — will adversely affect the performance of a significant number of legacy GPS receivers.

In addition to the technical working group report, LightSquared has submitted its recommendations to address the problems identified by the working group.⁷ In particular, LightSquared indicates its willingness to: (1) operate at lower power than permitted by its existing FCC authorization; (2) agree to a “standstill” in the terrestrial use of its Upper 10 MHz frequencies immediately adjacent to the GPS band; and (3) commence terrestrial commercial operations only on the lower 10 MHz portion of its spectrum and to coordinate and share the cost of underwriting a workable solution for the small number of legacy precision measurement devices that may be at risk. We specifically invite comment on these recommendations, including any alternative proposals to enable these two important services – GPS devices and L-band mobile broadband – to co-exist. We also welcome comments on the technical working group report generally. Comments should be filed no later than July 30, 2011, and reply comments by August 15, 2011.

Comments and Reply Comments. Comments and reply comments may be filed using: (1) the Commission’s Electronic Comment Filing System (ECFS); or (2) by filing paper copies. All filings should reference the docket number of this proceeding, IB Docket No. 11-109.

- **Electronic Filers:** Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/>. Filers should follow the instructions provided on the website for submitting comments. In completing the transmittal screen, ECFS filers should include their full name, U.S. Postal Service mailing address, and IB Docket No. 11-109.
- **Paper Filers:** Parties that choose to file by paper must file an original and one copy of each filing. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission’s Secretary, Office of the Secretary, Federal Communications Commission.
 - All hand-delivered or messenger-delivered paper filings for the Commission’s Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes or boxes must be disposed of *before* entering the building.

⁶ 26 FCC Rcd at 586-587, ¶ 43.

⁷ LightSquared’s recommendation is also available through the FCC’s Electronic Comment Filing System in IB Docket No. 11-109.

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

Accessibility Information. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY).

The comments and reply comments filed in response to this Public Notice will be available via ECFS at: <http://fjallfoss.fcc.gov/ecfs2/>; you may search by docket number (IB Docket No. 11-109). Comments and reply comments are also available for public inspection and copying during business hours in the FCC Reference Information Center, Portals II, 445 12th Street S.W., Room CY-A257, Washington, D.C. 20554. Copies may also be purchased from Best Copy and Printing, Inc., telephone (800) 378-3160, facsimile (202) 488-5563, e-mail FCC@BCPIWEB.com.

Ex Parte Rules. This proceeding shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules.⁸ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must: (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made; and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with section 1.1206(b) of the Commission’s rules. In proceedings governed by section 1.49(f) of the rules or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission’s *ex parte* rules.

By the Chief, International Bureau

– FCC –

⁸ See 47 C.F.R. §§ 1.1200 *et seq.*