SPACE-BASED POSITIONING
NAVIGATION & TIMING
NATIONAL EXECUTIVE COMMITTEE

UNITED STATES OF AMERICA

JAN 18 2012

MEMORANDUM FOR: ADMINISTRATOR, NTIA

FROM: National Space-Based PNT Executive Steering Group

SUBJECT: Follow-on Assessment of LightSquared Ancillary Terrestrial Component Effects on GPS Receivers

1. In response to your September 9, 2011 request to the Executive Steering Group (ESG) of the interagency National Space-Based Positioning, Navigation and Timing (PNT) Executive Committee (EXCOM), we tasked the National Space-Based PNT Systems Engineering Forum (NPEF) to work with LightSquared to test and validate data on the performance of personal/general navigation Global Positioning System (GPS) receivers in light of LightSquared's modified proposal to confine its operations to the lower 10 MHz signal (1526–1536 MHz) of the Mobile-Satellite Services (MSS) frequency band.

2. Attached is the NPEF's "Follow-on Assessment of LightSquared Ancillary Terrestrial Component Effects on GPS Receivers" report, dated January 6, 2012. Testing showed that most General Navigation devices were affected by the LightSquared '10L' signal. A significant percentage of general navigation devices experienced degradation in receiver carrier to noise density ratio of 1 dB or greater at an equivalent distance of greater than 100 meters from the LightSquared simulated tower.

3. If you have any questions or concerns, please contact Mr. Anthony Russo, Director, National Space-Based PNT Coordination Office (NCO) at Anthony.Russo@pnt.gov or (202) 482-5809.

TERI M. TAKAI
ESG Co-Chair
Department of Defense

JOEL M. SZABAT
ESG Co-Chair
Department of Transportation

Attachment:
NPEF Follow-on Test Report (FOUO)

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