



U.S. Department
of Transportation

**Federal Aviation
Administration**

Office of the Administrator

800 Independence Ave., S.W.
Washington, D.C. 20591

JAN 27 2012

The Honorable Lawrence E. Strickling
Administrator
National Telecommunications and
Information Administration
U.S. Department of Commerce
1401 Constitution Avenue, NW.
Washington, DC 20230

Dear Mr. Strickling:

In June 2011, RTCA completed an assessment of the potential interference to certified aviation receivers resulting from the planned LightSquared long-term evolution (LTE) 4G network (RTCA, Assessment of the LightSquared Ancillary Terrestrial Component Radio Frequency Interference Impact on GNSS L1 Band Airborne Receiver Operation, RTCA/DO-327, June 3, 2011). This report concluded that their planned operation of the upper 10 MHz LightSquared channel would cause significant interference to GPS and should not be allowed. However, this report was inconclusive on the use of only the lower 10 MHz LightSquared channel, and the report recommended further study.

To better inform the issue, the Federal Aviation Administration (FAA) has been working with LightSquared since August 2011 to conduct an analysis of the impact to certified aviation receivers of LightSquared's planned operation at the lower 10 MHz channel only. Since certified aviation receivers are necessarily designed and built to strict, established standards, analysis instead of testing is quite effective. LightSquared has been very cooperative throughout this process, providing information on their planned network and expertise to help resolve some of the technical issues. Based on that analysis, it has become apparent that LightSquared's planned operation would not be compatible with low-altitude aviation operations, including use of GPS for terrain awareness and warning systems (TAWS), some navigation operations, and potentially automatic dependent surveillance-broadcast. It is important to note that the mandatory installation of TAWS into U.S. commercial aircraft is considered by many to have made the single greatest impact to improving U.S. commercial aviation safety in the last 20 years.

Therefore, and consistent with the letter from the Space-Based PNT EXCOM co-chairs to you, dated January 13, 2012, FAA has concluded there appears to be no practical solutions or mitigations that would permit the LightSquared broadband service, as proposed, to operate in the

next few months or years without significantly interfering with GPS. As a result, no additional testing or analysis is warranted at this time.

This report represents the FAA views on the progress and outcome of the joint analysis. In the interest of transparency, LightSquared was provided with a draft copy of the report to obtain their comments. LightSquared's comments are presented as Appendix C in the report. However, it must be stressed that the views in Appendix C are those of LightSquared and its contractors, and its inclusion does not represent concurrence by the FAA.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Huerta', with a circled number '1' to the right.

Michael P. Huerta
Acting Administrator

2 Enclosures

FAA Report - FOUO

FAA Report - Public Release

cc: Mr. John D. Porcari, Deputy Secretary of Transportation,
U.S. Department of Transportation
Mr. Joel Szabat, Deputy Assistant Secretary for Transportation Policy,
U.S. Department of Transportation
Mr. Anthony J. Russo, Director, National Space-Based Position, Navigation and Timing
Coordination Office, U.S. Department of Commerce