Information for Policymakers from the National Coordination Office for Space-Based Positioning, Navigation, and Timing (PNT)

Early June 2011

Government Study Confirms GPS Interference from LightSquared Wireless Network

The National Space-Based PNT Systems Engineering Forum (NPEF) has completed a study of interference to GPS users from the broadband network being developed by LightSquared Subsidiary LLC. The study provides conclusive evidence, based on simulated and real-world testing, that LightSquared's planned signals interrupt a



broad range of GPS-based services—including farming systems, emergency vehicle dispatch, aircraft avionics, and survey operations. "Live sky" tests in New Mexico with actual LightSquared transmissions degraded GPS service on all devices tested. Analysis of the data collected indicates aircraft would lose GPS at up to 8.6 km from a LightSquared tower. The NPEF investigated various mitigation options but found no universal approach to resolve the issue for all GPS users under LightSquared's current FCC authorization.

The NPEF study is separate from the LightSquared working group report due to the FCC June 15. For more information, visit http://www.pnt.gov/interfererence/lightsquared/.

Defense Authorization Language Requires LightSquared-GPS Interference Resolution

On May 26, the FY 2012 National Defense Authorization Act (H.R. 1540) passed the House with an amendment barring the FCC from authorizing final LightSquared operations until the FCC resolves concerns about GPS interference to military GPS devices. A previous version of the bill simply required the Secretary of Defense to notify Congress of GPS interference concerns. Strategic Forces Subcommittee Chair Michael Turner (R-OH) has led the effort to highlight the LightSquared issue in the defense bill. To view Rep. Turner's statement on the matter, visit http://turner.house.gov/News/DocumentSingle.aspx?DocumentID=244279.

Members of Congress Issue Multiple Letters to FCC Calling for Protection of GPS

Congressional members have issued several bipartisan letters to FCC Chairman Julius Genachowski expressing concerns about the authorization of LightSquared's network as a terrestrial system operating in spectrum next to the GPS signals. These include:

- April 27: Sen. Chuck Grassley (R-IA) of the Judiciary Committee expressed dismay in the FCC's accelerated process and requested copies of all FCC communications with LightSquared.
- May 19: Sens. Pat Roberts (R-KS) and Ben Nelson (D-NE) led 33 senators in asking the FCC to rescind its order and authorization of January 26 until LightSquared demonstrates non-interference of GPS.
- June 7: Reps. Randy Neugebauer (R-TX) and Steve Austria (R-OH) led 66 House members in expressing concern about the timeline, calling for an additional public comment period, and urging the FCC to only approve LightSquared operations if the company substantively demonstrates GPS non-interference.
- June 10: Reps. Sam Graves (R-MO) and John Barrow (D-GA) led 36 members from the House General Aviation Caucus in highlighting the importance of GPS to the Next Generation Air Transportation System and the concern that LightSquared's network may jam or disrupt avionics. Their letter asks the FCC to take all steps necessary to protect GPS without imposing additional cost burdens on GPS users.



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