



Key Events

November 19, 2010 – **LightSquared** applies for a modification of its Ancillary Terrestrial Component (ATC) authorization.

January 26, 2011 – **The Federal Communications Commission's (FCC) International Bureau** grants a conditional waiver to LightSquared allowing the dramatic expansion of terrestrial use of the mobile satellite spectrum (MSS) immediately neighboring that of the Global Positioning System (GPS) – utilizing extremely high-powered ground-based transmissions that could potentially cause severe interference to hundreds of millions of GPS receivers.

March 10, 2011 – **Coalition to Save Our GPS** launches.

March 11, 2011 – **U.S. House Appropriations Subcommittee on Commerce, Justice, and Science** holds hearing in which Jim Kirkland, vice president and general counsel to Trimble, a founding member of the coalition, testifies. He says “the new system [should] not be deployed unless it can be conclusively guaranteed that the GPS users are fully protected from radio interference.”

March 15, 2011 – **Gen. William L. Shelton**, U.S. Air Force Space Command, testifies before the **Subcommittee on Strategic Forces of the House Committee on Armed Services**. He says, “We believe from what we’ve seen thus far that virtually every GPS receiver out there would be affected.”

March 23, 2011 – The **Coalition to Save Our GPS** announces its membership has more than doubled in two weeks, with new members such as **UPS, TomTom, the American Car Rental Association**, and four key aviation groups.

March 23, 2011 – **Lt. Gen. Michael Basla** expresses Air Force concerns that LightSquared could interfere with GPS receivers. “Can you imagine if we have to change a half billion receivers?” he asks at a Greater Colorado Springs Chamber of Commerce meeting.

March 25, 2011 – Top officials from the **U.S. Departments of Transportation and Defense** send a letter to the FCC expressing concerns over GPS interference by LightSquared, “strongly” advising the FCC to perform a “comprehensive study of all the potential interference” issues to GPS.

April 27, 2011 – **U.S. Sen. Charles Grassley (R-Iowa)** sends a letter to the FCC seeking more information about its review of LightSquared’s proposal, which he calls “controversial” because of “questions about whether or not it will block GPS technology.”

May 11, 2011 – **New Mexico's E-911 Program Director Bill Range** sends a letter to the FCC reporting that during testing a LightSquared tower knocked out GPS signals for law enforcement vehicles.

May 14, 2011 – **National Defense Authorization Act (NDAA)** passes in committee and includes language introduced by **U.S. Rep. Michael Turner (R-Ohio)** requiring the Secretary of Defense to notify Congress if he determines there is widespread interference with the military’s use of GPS.

May 20, 2011 – Led by **Sens. Pat Roberts (R-Kan.)** and **Ben Nelson (D-Neb.)**, **33 U.S. Senators** send a letter to the FCC asking Chairman Julius Genachowski to revoke a waiver granted to LightSquared, and to do all that is necessary to protect GPS.

May 25, 2011 – Led by **U.S. Reps. Randy Neugebauer (R-Texas)**, **Collin Peterson (D-Minn.)**, **Steve Austria (R-Ohio)**, and **Ralph Hall (R-Texas)**, **66 members of the U.S. House of Representatives** send a letter to the FCC requesting that the Commission only grant final approval to LightSquared if the company can prove its service will not interfere with GPS technology.

May 27, 2011 – **Deere & Co.** reports to the FCC that during testing it suffered "a complete loss of service" to the GPS systems of its tractors at ranges between four miles and 22 miles of a LightSquared tower.

May 31, 2011 – **FCC Chairman Julius Genachowski** responds to request from **U.S. Sen. Charles Grassley** (R-Iowa). Grassley is not satisfied because the letter does not provide the information he requested.

June 3, 2011 – **RTCA**, a nonprofit research group, submits a report to the Federal Aviation Administration (FAA), finding that "The impact of a LightSquared . . . deployment is expected to be complete loss of GPS receiver function."

June 9, 2011 – In written testimony to the **Senate Armed Services Committee**, **Leon Panetta** vows to "work with the FCC to ensure GPS remains accessible to support national security, public safety, and the economy" if he is confirmed as Secretary of Defense.

June 9, 2011 – The **National Space-Based PNT Advisory Board** holds a meeting to discuss results of two sets of extensive government tests of LightSquared's impact on GPS signal. The results are devastating. In 46 tests "all the GPS receivers" were affected by LightSquared's signals, according to FAA official Deane Bunce. Trimble's Jim Kirkland represents the Coalition at the meeting. **Peter Marquez**, vice president at Orbital Sciences Corp, says that "Time travel is more likely. . . than mitigating this issue."

June 10, 2011 – **Thirty-six U.S. Representative** co-sign a letter to the FCC outlining the importance of GPS in aviation and asking the Commission to take all necessary steps to ensure the protection of GPS.

June 14, 2011 – **U.S. Rep. Charles F. Bass (R-N.H.)** and two colleagues send a letter to the FCC urging it to rescind LightSquared's waiver if testing and comment periods fail to show conclusive evidence that interference will not occur.

June 15, 2011 – **LightSquared** requests – and is granted – a two-week FCC extension to file a report on interference by the Technical Working Group. Its deadline is now July 1, 2011.

June 15, 2011 – **The National Public Safety Telecommunications Council (NPSTC)** files a report confirming that "interference to public safety operations will occur" if LightSquared's plans are allowed to proceed. According to the report, "Denial-of-GPS-Service to portable devices represents perhaps the largest concern to the Public Safety market. Officers rely on 'Man-Down' signaling for immediate response under life and death situations. In certain circumstances, an officer may be unable to voice their location; GPS tracking is the only backup they may have for rescue or aid."

June 20, 2011 – **LightSquared** announces what it claims is a "comprehensive solution to the problem of interference with GPS." The Coalition to Save Our GPS issues a statement explaining that it's no solution at all, describing it as a "Hail Mary" move.

June 22, 2011 – An economic study by **Dr. Nam D. Pham** of the Washington, D.C.-based **NDP Consulting Group** finds that more than 3.3 million U.S. jobs in agriculture and industries rely heavily on GPS technology and the disruption of interference with GPS posed by LightSquared’s planned deployment of 40,000 ground stations threatens direct economic costs of up to \$96 billion to U.S. commercial GPS users and manufacturers. A John Deere spokesman comments: “We currently do not see a solution to the interference within our use of the GPS. . . .The technical solutions aren’t there at this time.”

June 23, 2011 – In a hearing of the **House Transportation and Infrastructure Subcommittee on Aviation and the Subcommittee on the Coast Guard and Maritime Transportation**, representatives of three members of the Coalition to Save Our GPS call on Congress to put a stop to deployment of LightSquared’s planned broadband network in spectrum that threatens to disrupt GPS signals. Top officials from the Departments of Defense and Transportation also express strong concerns.

June 23, 2011 – The **House Appropriations Committee** approves the fiscal year 2012 Financial Services and General Government Appropriations bill, which includes an amendment introduced by **U.S. Rep. Steve Austria (R-Ohio)** that prohibits funding for the FCC to remove conditions on or permit certain commercial broadband operations until the FCC has resolved concerns of harmful interference by these operations on GPS devices. The amendment is adopted on a voice vote.

June 23, 2011 – The **Senate Armed Services Committee’s** National Defense Authorization bill for fiscal year 2012 includes language that would require the Secretary of Defense to report quarterly to Congress if any commercial communications services are causing or will cause widespread interference with national security GPS receivers. It expresses the sense of Congress that reliable provision of navigation and timing signals by GPS satellites owned and operated by the Department of Defense is critical to the economy, public health and safety, and the national security of the United States.

June 23, 2011 – The **Transportation Construction Coalition (TCC)**, representing 29 national construction industry groups, sends a letter to Department of Transportation Secretary Ray LaHood requesting his “active engagement to block the Federal Communication Commission from considering this unusual waiver.”

June 30, 2011 – FCC-mandated **Technical Working Group (TWG)** report is filed, showing widespread GPS interference.

June 30, 2011 – The **FCC** issues public notice announcing a comment period for the LightSquared/GPS matter. Comments should be filed no later than July 30, 2011, and reply comments by August 15, 2011.

June 30, 2011 – Simultaneously with the TWG report, **LightSquared files a document, “Recommendation of LightSquared Subsidiary LLC,”** in which it agrees that the tests show substantial interference in the higher MSS band, but proposes an entirely new deployment scenario that centers on using the lower MSS band and castigates “the commercial GPS receiver industry.”

July 1, 2011 – **The Coalition to Save Our GPS** response to LightSquared, “**LightSquared’s ‘Recommendation’ Document: A Review,**” points out that LightSquared’s new proposal had never been discussed with TWG during its months of testing, questions the credibility of LightSquared’s new proposal given the TWG test results and asks what LightSquared had disclosed when to the FCC when it sought the conditional waiver.

July 12, 2011 – **FAA** report warns that LightSquared’s revised roll-out plan does not sufficiently mitigate interference with some GPS devices used in aviation, and in the next 10 years could cause 794 deaths and more than \$72 billion in additional costs to U.S. taxpayers.

July 19, 2011 – **The European Commission** sends a letter to the FCC expressing “deep concern” about possible interference by LightSquared to Galileo, Europe’s planned space-based navigation system, and to aviation navigation equipment.

July 29, 2011 – **Reps. Ed Markey (D-Mass.) and Brian Bilbray (R-Calif.)** urge FCC Chairman Julius Genachowski in a letter "to consider carefully the interference concerns regarding LightSquared's network, which have been raised by the GPS industry and federal agencies who are responsible for our security and our national wellbeing."

August 3, 2011 – **James Schlesinger, chairman of the National Executive Committee for Space-Based Positioning, Navigation & Timing and Dr. Bradford Parkinson, co-chair,** write in an FCC filing that LightSquared’s plans would cause “great harm” and ask the FCC to rescind its conditional approval for the project.

August 10, 2011 – **FCC Office of Engineering and Technology (OET)** requests additional technical information from LightSquared and the GPS Industry Council.

August 15, 2011 – **FCC** public comment period officially closes.

September 7, 2011 – In a filing with the FCC, **LightSquared** offers a revised roll-out plan – it’s third of the year – to limit the power level from its signals.

September 9, 2011 – The **Coalition to Save Our GPS** calls LightSquared’s announcement a “positive step” while noting that it has not been adequately tested and still leaves a huge gap because it does not solve interference to high-precision GPS receivers

September 8, 2011 – **U.S. House Science, Space and Technology Committee** holds a hearing entitled “Impacts of the LightSquared Network on Federal Science Activities,” where representatives from U.S. agencies call for more testing of LightSquared’s revised plan.

September 9, 2011 – **Lawrence Strickling**, head of the **National Telecommunications and Information Administration (NTIA)**, calls for further testing of the LightSquared network to conclude by November 30. He calls for testing of cellular and personal/general navigation devices initially, noting that additional testing will be required for high-precision receivers once new equipment that might address the interference issue is available for testing.

September 13, 2011 – **FCC** issues a public notice calling for further testing of the LightSquared network and its revised roll-out plan.

September 15, 2011 – **House Armed Services Subcommittee on Strategic Forces** holds a hearing where witnesses warn of high costs and national security concerns associated with the LightSquared network. **U.S. Air Force General William Shelton** said, “Based on the test results and analysis to date, the LightSquared network would effectively jam vital GPS receivers”... “And to our knowledge thus far, there are no mitigation options that would be effective in eliminating interference to essential GPS services in the United States.” When asked about cost, Shelton said it would “be very safe to say that the cost would be in the b’s – billions of dollars.”

September 15, 2011 – **House Aviation Subcommittee Chairman Thomas Petri, R-Wis.,** in a letter to CEO Sanjiv Ahuja, complains of LightSquared's latest marketing campaign that inaccurately claims that GPS services are using the company's spectrum.

September 16, 2011 – **U.S. Department of Defense** issues a press release on concerns DoD officials have over LightSquared’s planned network. The release reads, in part: “LightSquared’s new terrestrial network has the potential to wreak havoc on GPS systems that are vital to the military and used in a host of applications, Teresa Takai, the DOD’s chief information officer, and Air Force Gen. William L. Shelton, commander of Air Force Space Command, told members of the House Armed Services Committee’s Subcommittee on Strategic Forces yesterday.”

September 20, 2011 – **Seven Republican members on the House Science, Space, and Technology Committee** send letters to the White House Office of Science and Technology Policy (OSTP) and to the Office of Management and Budget (OMB) requesting documents related to the Administration’s involvement with LightSquared.

September 20, 2011 – **The Coalition to Save Our GPS** calls on LightSquared to step forward and accept responsibility for bearing the full costs associated with any transition required to implement any solution.

September 21, 2011 – **LightSquared** issues a press release announcing it has signed an agreement with Javad GNSS Inc. to develop a system that it says will eliminate related interference issues for high-precision GPS devices.

September 21, 2011 – **The Coalition to Save Our GPS** responds to the LightSquared/Javad announcement, saying LightSquared has “oversimplified and greatly overstated the significance of the claims of a single vendor to have ‘solved’ the interference issue,” and calls for testing of the prototype in the next round of testing of high-precision GPS receivers to verify LightSquared’s claims.

September 29, 2011 – **Sen. Charles Grassley (R-IA)** asks the FCC who will pay to retrofit all federal, state, and local government GPS receivers with filters. “At a time when our national debt is skyrocketing and state and local budgets are stretched to the breaking point, socking taxpayers with a multi-billion dollar bill and extending large unfunded mandates to state and local governments sends the wrong message to the American people,” he wrote in a letter to FCC Chairman Genachowski.

October 5, 2011 – **Sen. Grassley** asks LightSquared to turn over records relating to the company’s communications with the White House and government agencies.

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