

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of

LightSquared Technical Working
Group Report

and

LightSquared Subsidiary LLC Request
For Modification of its Authority for an
Ancillary Terrestrial Component

IB Docket No. 11-109

File No. SAT-MOD-20101118-00239

**COMMENTS
OF THE
COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION
(CCIA)**

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EXECUTIVE SUMMARY

LightSquared has invested billions of dollars to develop a nationwide LTE broadband wireless network. The network will utilize both satellite and terrestrial components to deliver wholesale mobile wireless services over its authorized L-Band spectrum. Once operational, LightSquared's network will create additional competition in an increasingly concentrated wireless marketplace; expand high-speed broadband access to many more Americans, realizing one of the goals of the *National Broadband Plan*; achieve the Commission's goal of expanding the amount of spectrum available for mobile broadband; and spur a wave of economic growth and job creation.

LightSquared has acknowledged that transmissions in the upper 10 MHz of its downlink frequencies adversely affect the performance of legacy GPS receivers. Although these interference issues are not of its own making, LightSquared has proposed a solution that will allow it to begin operating in the lower 10 MHz of its spectrum, while it continues to work with the FCC, NTIA, other government agencies, and the GPS industry to resolve any remaining interference issues.

LightSquared's solution shows a willingness to reach a fair compromise. In fact, its plan was first recommended by the GPS industry less than a year ago.

CCIA urges the Commission to accept LightSquared's recommendation to allow it to commence service in the lower 10 MHz of its spectrum, and to work with LightSquared, other government agencies, and stakeholders to broker a solution so that LightSquared can fully deploy its nationwide network as soon as possible.

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The Computer & Communications Industry Association (“CCIA”) files these Comments regarding the LightSquared Technical Working Group Report (“TWG Report”) filed on June 30, 2011.¹ CCIA requests that the Federal Communications Commission (“FCC” or “Commission”) approve LightSquared’s proposed recommendation (“Recommendation”)² and allow LightSquared to commence operations on the lower 10 MHz of its licensed spectrum. Further, CCIA urges the Commission to work with LightSquared and other government agencies to reach a longer-term solution enabling LightSquared to deploy new network infrastructure, using its full complement of terrestrial frequencies at appropriate power levels, so that it can provide new LTE broadband capacity to its customers while not interfering with GPS devices operating within their allotted spectrum bandwidth.

I. LIGHTSQUARED’S PLAN REPRESENTS A WILLINGNESS TO REACH A FAIR COMPROMISE

LightSquared’s Recommendation seeks a fair solution to GPS interference problems on its network. In its Recommendation, LightSquared acknowledged that transmissions in the upper 10 MHz of its downlink frequencies adversely affect the

¹ *In the Matter of LightSquared Subsidiary LLC Request for Modification of its Authority for an Ancillary Terrestrial Component*, Final Report, IB Docket No. 11-109, SAT-MOD-20101118-00239 (June 30, 2011) (“*TWG Report*”), available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=7021690471>.

² *In the Matter of LightSquared Subsidiary LLC Request for Modification of its Authority for an Ancillary Terrestrial Component*, Recommendation of LightSquared Subsidiary LLC, IB Docket No. 11-109, SAT-MOD-20101118-00239 (June 30, 2011) (“*Recommendation of LightSquared*”), available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=7021690470>.

performance of legacy GPS receivers.³ In response to relatively new concerns about interference with commercial GPS devices, LightSquared proposed a solution that would allow it to commence terrestrial operations on the lower 10 MHz of its spectrum, while working with the FCC, NTIA, and other government agencies to explore options that would allow LightSquared to use a full complement of terrestrial frequencies operating at appropriate power levels, so that it can launch LTE broadband service.⁴

In fact, LightSquared's Recommendation is the same as a solution proposed less than a year ago by the U.S. GPS Industry Council ("USGIC"). In September 2010, the U.S. GPS Industry Council proposed "[i]ntroducing new terrestrial broadband transmitters as far from [the RNSS L-1 band at 1559-1610 MHz] as possible" and having a "modest amount of margin around the edge of satellite services to protect their fundamental operations and utility to ... L-band RNSS services and devices."⁵

LightSquared's Recommendation is a balanced approach that would allow it to begin operation of the network that it has already spent billions of dollars developing, using an approach that was supported by the commercial GPS device industry less than a year ago. At the same time, LightSquared would continue working with the FCC, NTIA, and other government agencies to find a solution to disruptions caused by LightSquared's

³ *Id.* at 1.

⁴ *Id.* at 24-27.

⁵ *In the Matter of Fixed and Mobile Services in the Mobile Satellite Service Bands at 1525-1559 MHz and 1626.5-1660.5 MHz, 1610-1626.5 MHz and 2483.5-2500 MHz, and 2000-2020 MHz and 2180-2200 MHz*, Comments of the U.S. GPS Industry Council, ET Docket No. 10-142 at 13-14 (Sept. 15, 2010), *available at* <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020912452>.

network to GPS devices operating within their allotted spectrum bandwidth. This approach is fair and the FCC should agree to it.

II. LIGHTSQUARED’S PLAN WOULD RESULT IN INCREASED COMPETITION IN THE WIRELESS BROADBAND MARKET

If implemented, LightSquared’s plan to become a wholesaler of wireless voice and broadband capacity and services would significantly advance the Commission’s goal to promote competition in the wireless market.⁶

A. The Commission Has Declined to Classify the Wireless Market as Competitive

In its 2010 and 2011 reports on competition in the wireless market, the Commission declined to conclude that the market for wireless services is competitive.⁷ The Commission uses the Herfindahl-Hirschman Index (“HHI”) to measure market concentration in its analysis of wireless competition.⁸ In its Horizontal Merger Guidelines, the Department of Justice defines a “highly concentrated market” as having

⁶ See *Implementation of Section 6002(b) of the Omnibus Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 09-66, Fourteenth Report, FCC 10-81, 25 FCC Rcd. 11407 ¶ 1 (May 20, 2010) (“*Fourteenth Report*”), available at www.fcc.gov/14report.pdf (“[p]romoting competition is a fundamental goal of the Commission’s policymaking.”)

⁷ See *Implementation of Section 6002(b) of the Omnibus Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 10-133, Fifteenth Report, FCC 11-103 5 ¶ 2, 28 ¶ 15 (June 27, 2011) (“*Fifteenth Report*”), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-103A1.pdf; *Fourteenth Report* at 25 FCC Rcd. 11429 ¶ 6, 11623 ¶ 368.

⁸ *Fifteenth Report* at 44 ¶ 48.

an HHI of greater than 2500,⁹ and in its *Fifteenth Report*, the Commission found that the weighted average HHI for the wireless market at the end of 2009 was 2811.¹⁰

B. LightSquared’s Wholesale Wireless Service Will Create Increased Competition in the Wireless Market

LightSquared’s network will increase competition in the wireless broadband market if it is allowed to commence operation. LightSquared’s wholesale model will create the opportunity for abundant competition in the wireless market by allowing new market entrants, as well as existing 2G/3G providers, to purchase capacity on LightSquared’s wholesale network and market retail, wireless broadband services, mobile devices, and mobile applications to consumers, with 4G service, without requiring network build out. As LightSquared says in its Recommendation, its wholesale network “will enable dozens of competitors to bring broadband wireless services to American consumers.”¹¹

As discussed above, the Commission has declined to classify the wireless industry as competitive in its two most recent reports on wireless competition. The entry of LightSquared into the wireless market as a wholesale provider of network capacity will create the opportunity for multiple new market entrants to offer wireless broadband services on LightSquared’s network and compete with existing providers. The increased

⁹ U.S. Dept. of Justice, Horizontal Merger Guidelines § 5.3 (Aug. 19, 2010), available at www.ftc.gov/os/2010/08/100819hmg.pdf.

¹⁰ *Fifteenth Report* at 46 ¶ 51.

¹¹ *Recommendation of LightSquared* at 22.

competition that LightSquared's network would enable will go far toward advancing the Commission's goal of promoting wireless competition.

III. LIGHTSQUARED'S PLAN WOULD EXPAND HIGH SPEED BROADBAND ACCESS TO ALL AMERICANS IN FULFILLMENT OF THE *NATIONAL BROADBAND PLAN*

Allowing LightSquared to deploy its network would expand access to high-speed broadband to all Americans and help the Commission achieve its aim to increase deployment of wireless broadband service in rural areas.

A. As Many As Twenty-Six Million Americans Lack Access to High-Speed Broadband Services

According to the Commission, as many as twenty-six million Americans live in areas unserved by high-speed broadband, and “[m]any of these Americans live in areas where there is no business case to offer broadband, and where existing public efforts to extend broadband are unlikely to reach . . .”¹² Additionally, In the *National Broadband Plan*, the Commission found that those with low incomes, those with disabilities, those who are racial or ethnic minorities, those living on Tribal lands, and those living in rural

¹² *In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 10-159, Seventh Broadband Progress Report and Order on Reconsideration, FCC 11-78 at 2 ¶ 1 (May 20, 2011) (“*Seventh Broadband Progress Report*”), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-78A1.pdf.

areas are less likely to have broadband access.¹³ Accordingly, the Commission has concluded that broadband is not being deployed in a reasonable and timely fashion to all Americans.¹⁴

B. LightSquared Can Help the Commission and the Administration Reach Their Goals and Expand High-Speed Broadband Service to All Americans

LightSquared's service will expand high-speed broadband access to all Americans and help the Commission and the Administration reach their goals of removing barriers to broadband infrastructure investment and expanding 4G broadband access to cover rural areas.

In February 2011, the White House outlined a plan to revitalize the Universal Service Fund ("USF") to have 4G broadband available to 98% of Americans within five years.¹⁵ And in a June 2011 report, the Commission echoed the President's call to reform USF, writing that it "must continue to remove barriers to rural broadband deployment to promote further private and public investment, innovation, and job creation. And the Commission must increase the deployment of wireless infrastructure in rural areas."¹⁶

¹³ FCC, CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN 129 (2009) ("NATIONAL BROADBAND PLAN"), available at <http://download.broadband.gov/plan/national-broadband-plan.pdf>.

¹⁴ *Seventh Broadband Progress Report*, at 2.

¹⁵ See Press Release, Office of the Press Secretary, The White House, President Obama Details Plan to Win the Future Through Expanded Wireless Access (Feb. 10, 2011), available at <http://www.whitehouse.gov/the-press-office/2011/02/10/president-obama-details-plan-win-future-through-expanded-wireless-access>.

¹⁶ *Bringing Broadband to Rural America: Update to Report on Rural Broadband Strategy*, GN Docket No. 11-16 4 ¶ 5 (June 17, 2011) ("Update to Report on Rural

Allowing LightSquared to begin deployment of its wholesale wireless service will serve the goals of the Commission and the Administration to make broadband services available to all Americans. LightSquared's wholesale business model will allow broadband providers to offer services to unserved areas without incurring the high-costs of building out their own infrastructure. Not only will LightSquared's network allow service providers to reach unserved areas, it will do so without consuming USF subsidies – a winning proposition for both customers and taxpayers.

IV. FINDING A SOLUTION TO ALLOW LIGHTSQUARED TO DEPLOY ITS NETWORK WOULD PROMOTE THE EFFICIENT USE OF WIRELESS SPECTRUM

Working with LightSquared, NTIA, and other government agencies to find a solution to interference problems with commercial GPS devices would allow the Commission to promote the efficient use of vital wireless spectrum resources and meet its goal to increase the amount of spectrum available for wireless broadband use.

A. The Commission Has Called for the Utilization of Additional Wireless Spectrum for Mobile Broadband

The *National Broadband Plan* is explicit on the need for additional wireless spectrum to capitalize on the potential for wireless broadband to be a transformative platform.¹⁷ The *Plan* calls for the Commission to make 500MHz of spectrum available

Broadband Strategy”), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-307877A1.pdf.

¹⁷ NATIONAL BROADBAND PLAN at 75.

over the next decade,¹⁸ including making 90MHz of spectrum currently allocated for as Mobile Satellite Services (“MSS”) available for terrestrial deployment.¹⁹ LightSquared has been working on this initiative for a decade.²⁰ Failure to adopt LightSquared’s fine-tuned Recommendation would waste these valuable spectrum resources, and discourage future investments in such initiatives.

B. LightSquared Seeks a Solution That Would Efficiently Utilize Valuable Spectrum Resources

In its Waiver Order, the FCC concluded that interference to GPS devices was caused by GPS equipment failing to reject transmissions on LightSquared’s adjacent spectrum.²¹ In recognition of this issue not of its own making, LightSquared has voluntarily modified its plan to use a different part of its spectrum, including investing over \$100 million to obtain access to the necessary spectrum.²² Yet, the USGIC has concluded that the only solution is for LightSquared to vacate its licensed spectrum²³ – even though it had previously advised exactly the solution LightSquared now proposes.²⁴

¹⁸ *Id.* at 84.

¹⁹ *Id.* at 87.

²⁰ *See Recommendation of LightSquared* at 11-19.

²¹ *See In the Matter of LightSquared Subsidiary LLC Request for Modification of its Authority for an Ancillary Terrestrial Component*, Order and Authorization, SAT-MOD-20101118-00239, DA 11-133 21 ¶ 42 (Jan. 26, 2011), *available at* http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0126/DA-11-133A1.pdf

²² *Recommendation of LightSquared* at 4-5.

²³ Press Release, United States Global Positioning System Industry Council, Overview of the Final Report of the Working Group Established by the FCC to Study Overload/Desensitization Interference on GPS Receivers and GPS- Dependent

The Commission has noted that the GPS industry has had almost a decade to prepare for LightSquared's launch,²⁵ and that the obligation to mitigate interference is not solely LightSquared's, but also rests with the GPS industry.²⁶ For the Commission to deny LightSquared's recommendation would reward the GPS industry for their inaction – essentially granting the GPS industry a form of adverse possession of LightSquared's licensed spectrum. Beyond the impact of potentially removing LightSquared as a competitor in the national wireless broadband market, such a decision would have a chilling impact on future spectrum utilization plans.

The *National Broadband Plan's* goal of allocating 500MHz of additional spectrum depends heavily on auctioning spectrum,²⁷ and includes a recommendation to

Applications from LightSquared Terrestrial Broadband Operations at 10 (June 30, 2011), available at <http://www.gpsworld.com/gnss-system/us-gpsic-overview-final-report-working-group-11850> (noting that the “only feasible solution” is to relocate LightSquared's service to other spectrum).

²⁴ See *Recommendation of LightSquared* at 13 & n.16 (quoting a letter from USGIC to the FCC in support of LightSquared's Ancillary Terrestrial Component application, noting that LightSquared was “to be commended for its proposal to use its spectrum in a responsible manner”).

²⁵ *In the Matter of Fixed and Mobile Services in the Mobile Satellite Service Bands at 1525-1559 MHz and 1626.5-1660.5 MHz, 1610-1626.5 MHz and 2483.5-2500 MHz, and 2000-2020 MHz and 2180-2200 MHz*, Report and Order, ET Docket No. 10-142, FCC 11-57, 14 ¶ 28 (Apr. 6, 2011), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-57A1.pdf.

²⁶ See *id.* (“responsibility for protecting services rests not only on new entrants but also on incumbent users themselves, who must use receivers that reasonably discriminate against reception of signals outside their allocated spectrum.”).

²⁷ See THE NATIONAL BROADBAND PLAN at 81, 85.

reallocate 120MHz of TV broadcast spectrum via incentive auctions.²⁸ LightSquared has already invested \$4 billion in reliance on prior Commission rulemaking and has lined up \$22 billion more to launch its nationwide wholesale network.²⁹ If the Commission rejects LightSquared’s Recommendation, much of that investment is likely to be lost. The message this will send to potential bidders in TV broadcast spectrum reallocation auctions is that they risk incumbent broadcasters “squatting” on existing spectrum. Assurances from the Commission that they will enforce the reallocation may not suffice to create certainty for bidders if the Commission allows the GPS industry to “squat” on spectrum that was never theirs in the first place.

The GPS industry has raised valid concerns about interference with critical services, and those concerns must be addressed. In response, LightSquared has gone above and beyond in modifying its plans and contracting to use alternate spectrum to accommodate the GPS industry’s neglect and inaction. Yet, the GPS industry declares LightSquared’s proposal insufficient, and asks the Commission to bar LightSquared from using its licensed spectrum. The impact of denying LightSquared’s recommendation will have ramifications beyond LightSquared. Other investors will be unlikely to attempt to reuse MSS spectrum for terrestrial service, and such a decision will likely affect other spectrum reallocation plans, such as those for TV broadcast spectrum. Impairing future

²⁸ See *id.* at 90-91. Both the House Energy & Commerce Committee and the Senate Commerce, Science & Transportation Committee are considering legislation in the 112th Congress to expand FCC auction authority to include reallocation of broadcast TV spectrum.

²⁹ *Recommendation of LightSquared* at 16.

investment in approximately ~200MHz of the 500MHz of spectrum that the *National Broadband Plan* calls for is unsound spectrum policy.

Thus, to promote sound spectrum policy and to achieve the Commission’s goal of increasing the amount of wireless spectrum available for mobile broadband use, the Commission should work with LightSquared and GPS stakeholders to reach a solution that will allow LightSquared to deploy its nationwide wholesale network.

V. LIGHTSQUARED’S PLAN WOULD PROMOTE ECONOMIC GROWTH AND JOB CREATION

The deployment of LightSquared’s network will lead economic growth and jobs and provide a much needed boost to the sputtering American economy. As Chairman Genachowski wrote in May, “the opportunity presented by LightSquared, which if successfully realized, would result in billions of dollars of new private investment and the creation of tens of thousands of jobs.”³⁰

As the Commission has said, “[b]roadband can unlock new opportunities for Americans with respect to ‘consumer welfare ... community development, health care delivery, energy independence and efficiency, education, worker training, private-sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes.’”³¹

³⁰ Letter from Julius Genachowski, Chairman, FCC, to Charles E. Grassley, U.S. Senator at 3 (May 31, 2011), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-307461A1.pdf

³¹ *Update to Report on Rural Broadband Strategy*, at 2 ¶ 2 (June 17, 2011) (citing 47 U.S.C. § 1305(k)(2)(D)).

LightSquared's network, when deployed will enable these opportunities by revolutionizing the wireless industry, as retailers, communication service providers, cable providers, device manufacturers, application developers, content providers, and other entities will be able to enter the retail wireless marketplace without the need to invest the billions needed to procure spectrum and develop their own networks.

As a result, businesses in unserved areas will be able to reach new customers via LightSquared's network, content providers will be able to reach new customers, and device manufacturers will have more carriers and customers to sell their products to. LightSquared's network will help support an ecosystem in which entire industries, "such as health care, automotive, transportation, education, media, entertainment, and energy" will be transformed.³² However, in order to enable the economic growth and job creation that LightSquared's network will make possible, the Commission must allow LightSquared to deploy its network and work with it and other stakeholders to solve any remaining interference problems.

CONCLUSION

By allowing LightSquared to commence operation of its network in the lower 10 MHz of its spectrum and brokering a solution to interference problems with commercial GPS devices that will allow LightSquared to fully deploy its network, the Commission will realize its goals of increasing competition in the wireless broadband market, increasing the efficient use of spectrum resources for commercially valuable uses, and expanding high-speed broadband access to more Americans. Moreover, reaching a

³² *Recommendation of LightSquared* at 23.

compromise that allows LightSquared to fully deploy its network will spur economic growth and job creation. CCIA strongly urges the Commission to work with LightSquared so that it may fully deploy its network and so Americans can realize the benefits of additional competition and connectivity.

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