

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

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| In the Matter of |) | |
| |) | |
| LightSquared Inc. Petition for Declaratory |) | IB Docket No. 11-109 |
| Ruling |) | |
| |) | |
| LightSquared Subsidiary LLC |) | |
| Request for Modification of its Authority |) | |
| for an Ancillary Terrestrial Component |) | |
| |) | |
| Fixed and Mobile Services in the Mobile |) | ET Docket No. 10-142 |
| Satellite Service Bands |) | |

REPLY COMMENTS OF THE COALITION TO SAVE OUR GPS

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Dated: March 13, 2012

TABLE OF CONTENTS

SUMMARY ii

I. COMMENTING PARTIES AGREE AND SUBSEQUENT EVENTS CONFIRM THAT LIGHTSQUARED’S PROPOSED NETWORK WILL CAUSE INTERFERENCE TO GPS AND MUST BE PROHIBITED.....2

 A. The Petition Is a Distraction from What Should Be the Commission’s Principal Function with Respect to LightSquared – Confirming That It Cannot Proceed as Proposed.....2

 B. Recent Findings and Events Have Made the Petition Moot.5

II. THE COMMENTS DEMONSTRATE THAT GPS RECEIVERS ARE ENTITLED TO AND LIGHTSQUARED IS RESPONSIBLE FOR INTERFERENCE PROTECTION, INCLUDING THE COSTS FOR ELIMINATING INTERFERENCE.....8

III. THERE IS CONSENSUS THAT A DECLARATORY RULING IS NOT THE APPROPRIATE PROCEDURAL VEHICLE FOR ADDRESSING THE ISSUES RAISED IN LIGHTSQUARED’S PETITION; RATHER, SUCH MATTERS MUST BE ADDRESSED IN A RULEMAKING PROCEEDING.14

IV. WHILE LIGHTSQUARED IS SOLELY RESPONSIBLE FOR ADDRESSING ANY INTERFERENCE CAUSED TO GPS, THE GPS COMMUNITY REMAINS COMMITTED TO ASSESS RECEIVER PERFORMANCE, WHILE ENSURING ADEQUATE PROTECTION OF GPS SERVICES IN THE FUTURE.....16

V. CONCLUSION.....19

SUMMARY

The vast majority of commenters agree that the Petition for Declaratory Ruling (the “Petition”) submitted by LightSquared Inc. (“LightSquared”) is an attempt by LightSquared to circumvent its regulatory obligations and the express condition in the *January 2011 Waiver Order* requiring it to show that its proposed operations will not interfere with GPS.

LightSquared has merely repackaged arguments previously and thoroughly addressed on the record to prevent or delay the Commission from reaching its final decision that LightSquared cannot be permitted to proceed with its plans. LightSquared’s Petition effectively asks the Commission to change the rules after the game is over – having failed to satisfy the condition in the Commission’s *January 2011 Waiver Order*, LightSquared would have the Commission eliminate the condition by declaratory ruling. This request should be rejected.

Moreover, recent events make LightSquared’s Petition moot, or at least premature. Legislation now prohibits the Commission from allowing LightSquared to proceed unless it can show that it has effectively addressed concerns regarding interference to GPS. The National Telecommunications and Information Administration (“NTIA”) concluded that LightSquared has failed to make this showing, and the Commission has tentatively adopted this conclusion. While the Petition requests that the Commission take action to allow LightSquared to proceed with its terrestrial build-out, the recent legislation and technical findings dictate that it cannot proceed. Therefore, the Petition should be dismissed as moot, or at least held in abeyance until the Commission issues a final decision regarding whether LightSquared has met the non-interference condition in the *January 2011 Waiver Order* (and dismissed when the FCC determines that LightSquared has not met that condition).

If the Commission nonetheless believes that it should consider the merits of LightSquared’s Petition, comments have demonstrated that, contrary to the Petition’s assertions,

GPS receivers are entitled to interference protection. Commission rules, decisions, and the explicit condition imposed on LightSquared in the *January 2011 Waiver Order* place the obligation squarely on LightSquared to resolve any interference caused to GPS. GPS receivers function precisely as intended, do not impermissibly “listen” outside of the band in which they operate, and need not be licensed in order to be protected from harmful interference. Indeed, GPS is a primary service allocation while LightSquared’s proposed stand-alone terrestrial services amount to a non-conforming spectrum use.

In any event, comments demonstrate that the arguments presented in the Petition must be addressed – if at all – in a rulemaking proceeding, and not through a declaratory ruling. Even LightSquared recognizes that its Petition presents “broad questions” regarding the respective rights and responsibilities of spectrum holders, which are matters inappropriate for the Commission to resolve through a declaratory ruling. While LightSquared argues that the Commission has authority for resolving spectrum interference, in this instance, the Commission exercised that authority by specifically dictating how interference concerns would be addressed. Any departure from the rigorous procedures mandated by the *January 2011 Waiver Order* – and undertaken by involved parties from both the public and private sectors to extensively evaluate LightSquared’s proposal (and its modifications) – must be addressed in a separate rulemaking.

While the Coalition recognizes that making more spectrum available for terrestrial mobile broadband is a laudable goal, it cannot come at the expense of an existing, critical service like GPS. While the Coalition continues to believe that marketplace dynamics are the best way to drive improvements in receiver performance, it will fully cooperate with any inquiries regarding receiver performance, while working to ensure that GPS devices and applications are adequately protected in the future.

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| Fixed and Mobile Services in the Mobile Satellite Service Bands |) | ET Docket No. 10-142 |
| |) | |

REPLY COMMENTS OF THE COALITION TO SAVE OUR GPS

The Coalition to Save Our GPS (the “Coalition”), pursuant to the *Public Notice* released by the Federal Communications Commission (“FCC” or “Commission”) in the above-referenced proceedings,^{1/} hereby submits these reply comments in response to the initial comments submitted regarding the Petition for Declaratory Ruling filed by LightSquared Inc. (“LightSquared”).^{2/} The overwhelming majority of comments show not only that the Petition should be dismissed both on its merits and procedurally, but that the Petition amounts to a distraction from the fundamental issue that LightSquared’s proposed nationwide terrestrial network will cause harmful interference to a wide range of GPS services and that no mitigation measures exist at this time. Given the conclusion of the National Telecommunications and Information Administration (“NTIA”) – and the tentative conclusion of the FCC’s International

^{1/} See *International Bureau Establishes Pleading Cycle for LightSquared Petition for Declaratory Ruling*, Public Notice, IB Docket No. 11-109 and ET Docket No. 10-142, DA 12-103 (rel. Jan. 27, 2012) (“*Public Notice*”).

^{2/} LightSquared Inc. Petition for Declaratory Ruling, IB Docket No. 11-109 (filed Dec. 20, 2011) (“*Petition*”). Except as otherwise noted, LightSquared Inc. and its predecessors and affiliates are referred to herein individually and collectively as “LightSquared.”

Bureau – that LightSquared has failed to show that its operations will not interfere with GPS and recent legislation prohibiting the Commission from allowing LightSquared to proceed with its plans unless all GPS interference concerns have been resolved, the Petition should be dismissed as moot or at least held in abeyance pending the Commission’s decision regarding whether LightSquared may be allowed to proceed (and dismissed when it makes that decision).

I. COMMENTING PARTIES AGREE AND SUBSEQUENT EVENTS CONFIRM THAT LIGHTSQUARED’S PROPOSED NETWORK WILL CAUSE INTERFERENCE TO GPS AND MUST BE PROHIBITED.

A. The Petition Is a Distraction from What Should Be the Commission’s Principal Function with Respect to LightSquared – Confirming That It Cannot Proceed as Proposed.

Commenters agree that LightSquared’s Petition amounts to a distraction from the fundamental issue in this proceeding: that LightSquared’s proposed operations will cause devastating interference to GPS receivers and therefore must not be permitted. Trade associations, public safety representatives, and GPS manufacturers, among others, all agree that LightSquared’s Petition is merely an attempt to evade its regulatory obligations and to disguise the fact that it has not been able to meet the conditions of the International Bureau’s *January 2011 Waiver Order*.^{3/} As Deere & Company (“Deere”) suggests, “[t]he Commission should

^{3/} See, e.g., Opposition to LightSquared Petition for Declaratory Ruling of the Coalition to Save Our GPS, IB Docket No. 11-109 and ET Docket No. 10-142, at 1 (filed Feb. 27, 2012) (“Coalition Opposition”); Comments in Opposition of the Utilities Telecom Council, IB Docket No. 11-109 and ET Docket No. 10-142, at 1 (filed Feb. 27, 2012) (“UTC Comments”) (“Clearly, LightSquared has been unable to meet the conditions of its waiver, and it is seeking to circumvent them through its Petition for Declaratory Ruling.”); Opposition to Petition for Declaratory Ruling of Lockheed Martin Corp., IB Docket No. 11-109 and ET Docket No. 10-142, at 3 (filed Feb. 27, 2012) (“Lockheed Opposition”) (“With the Petition, LightSquared appears to be trying to avoid its obligations under both the FCC’s rules and the specific requirements that the Commission imposed on LightSquared in the *2011 Waiver Order* by arguing that RNSS receivers are not entitled to protection at all.”) (citations omitted); Opposition of the U.S. GPS Industry Council to LightSquared, Inc. Petition for Declaratory Ruling, IB Docket No. 11-109 and ET Docket No. 10-142, at iii (filed Feb. 27, 2012) (“USGIC Opposition”) (“LightSquared’s Petition is simply an effort to alter its manifest obligations as a non-conforming spectrum user to protect other L-band services from harmful interference, obligations which it has previously recognized and

reject LightSquared's Petition as another attempt to run roughshod over the legitimate and significant concerns of the GPS community regarding severe and harmful widespread interference that will result if LightSquared is permitted to proceed with its proposed high power terrestrial-only network in the MSS L-Band."^{4/}

The main purpose of this proceeding has always been (and continues to be) to determine if there is a resolution to the fundamental interference problems caused by LightSquared's proposed network. As the Coalition has explained on numerous occasions,^{5/} the International Bureau's *January 2011 Waiver Order* conditioned LightSquared's ability to operate its network on the requirement that it not cause harmful interference to GPS.^{6/} Extensive testing has been conducted and clearly demonstrates that this condition has not been met.^{7/} Thus, notwithstanding any attempts by LightSquared to distract the Commission with its Petition, the bottom line is that the FCC should, as it has recently proposed,^{8/} terminate LightSquared's conditional authority to

affirmatively accepted."); Comments of the Association of Public-Safety Communications Officials-International, Inc., IB Docket No. 11-109 and ET Docket No. 10-142, at 2 (filed Feb. 27, 2012) ("APCO Comments") (suggesting that LightSquared is attempting "to evade its regulatory obligations").

^{4/} Opposition of Deere & Company to LightSquared Inc. Petition for Declaratory Ruling, IB Docket No. 11-109 and ET Docket No. 10-142, at 2 (filed Feb. 27, 2012) ("Deere Opposition").

^{5/} See, e.g., Coalition Opposition at 10-11.

^{6/} See *LightSquared Subsidiary LLC Request for Modification of its Authority for an Ancillary Terrestrial Component*, Order and Authorization, 26 FCC Rcd 566 (2011) ("*January 2011 Waiver Order*").

^{7/} See *Status of Testing in Connection with LightSquared's Request for ATC Commercial Operating Authority*, Public Notice, 26 FCC Rcd 12913 (rel. Sept. 13, 2011) (reporting that the Technical Working Group found that LightSquared's proposed terrestrial operations could cause harmful interference to GPS); Letter from Lawrence E. Strickling, Assistant Secretary for Communications and Information, NTIA, U.S. Department of Commerce, to the Honorable Julius Genachowski, Chairman, FCC, at 1-2 (Feb. 14, 2012) ("*NTIA Letter*"), available at <http://www.ntia.doc.gov/fcc-filing/2012/ntia-lightsquaredrecommendation-fcc> ("[W]e conclude that LightSquared's proposed mobile broadband network will impact GPS services and that there is no practical way to mitigate the potential interference at this time.").

^{8/} *International Bureau Invites Comment on NTIA Letter Regarding LightSquared Conditional Waiver*, Public Notice, Docket No. 11-109, DA 12-214, at 4 (rel. Feb. 15, 2012) ("*Public Notice Seeking Comment on NTIA Letter*").

operate its network because it would harmfully interfere with hundreds of millions of GPS devices.

NTIA and nearly every commenting party have reached the same conclusion.^{9/} T-Mobile USA, Inc. (“T-Mobile”), for instance, notes that test results have indicated that LightSquared’s network could interfere with cellular devices and operations, including E911 location accuracy and essential network timing functionality.^{10/} The National Public Safety Telecommunications Council reports that the original testing in which it participated and the additional subsequent testing reported by NTIA demonstrate that interference from LightSquared’s proposed network could affect public safety related use of GPS, including dispatch operations, mapping/response directions to responders, and synchronization of simulcast systems across the country.^{11/}

Further, almost all interested parties, except for LightSquared and its favored vendors, agree that no mitigation measures currently exist to alleviate the interference concerns.

T-Mobile, for example, explains that using filtering technologies and retrofitting existing GPS

^{9/} See, e.g., UTC Comments at 2 (stating that LightSquared’s operations could adversely impact applications used by utilities and other critical infrastructure industries such as “teleprotection systems that rely on GPS for time stamping of events, . . . synchrophasors that utilities will increasingly use for wide area situational awareness[, and] . . . unmanned aerial vehicles, which utilities will increasingly use for inventories and inspection of power lines”); Deere Opposition at 2-3 (asserting that the interference concerns affect “hundreds of millions of GPS users that rely on devices embedded in many sectors ranging from critical safety-of-life applications, including in aviation and military, to important industrial and commercial applications such as high-precision agriculture, to consumer applications”) (citations omitted); Letter from Greg Zickau, Chief Technology Officer, State of Idaho, to the Honorable Julius Genachowski, Chairman, FCC, IB Docket No. 11-109 and ET Docket No. 10-142, at 1 (filed Feb. 27, 2012) (“Idaho Letter”) (observing that numerous independent reports from NTIA, the FCC, and the Department of Defense raise concerns about interference to GPS, which the State of Idaho uses in critical applications such as “precision agriculture, highway transportation and road construction, emergency management, surveying, scientific research, and recreation”).

^{10/} See Comments of T-Mobile USA, Inc., IB Docket No. 11-109 and ET Docket No. 10-142, at 5-6 (filed Feb. 27, 2012) (“T-Mobile Comments”).

^{11/} See Comments of the National Public Safety Telecommunications Council, IB Docket No. 11-109, at 4-5 (filed Feb. 27, 2012) (“NPSTC Comments”).

devices are simply not feasible solutions since they “are costly, time-consuming, and, as of yet, untested.”^{12/}

All of this evidence points to one result – that the FCC should deny the Petition and focus on whether LightSquared has met the conditions in the *January 2011 Waiver Order*. As Deere correctly states, “[t]he Commission should resist LightSquared’s effort to sidetrack the Commission’s consideration of the principal issue – that LightSquared’s network will cause severe interference to GPS – by dragging all parties into a *new* debate about LightSquared’s current (and unsupportable) view that GPS companies should be prevented from requiring protections against harmful interference from LightSquared’s operations.”^{13/}

B. Recent Findings and Events Have Made the Petition Moot.

As the Coalition noted in its Opposition,^{14/} the letter submitted earlier this month by NTIA “conclude[s] that LightSquared’s proposed mobile broadband network will impact GPS services and that there is no practical way to mitigate the potential interference at this time.”^{15/} In addition, the nine federal entities comprising the National Space-Based Positioning, Navigation and Timing Executive Committee, which submitted its findings to NTIA, reported that “there appear 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

^{12/} T-Mobile Comments at 6 (adding that hundreds of thousands of CMRS base stations could potentially require filters, which would result in substantial equipment and labor costs, and that “[w]ith hundreds of millions of existing GPS-enabled devices currently in the market, the process of replacing existing devices would take many years to complete”). *But see* Letter from Javad Ashjaee, CEO, Javad GNSS, to the Honorable Julius Genachowski, Chairman, FCC, IB Docket No. 11-109, at 1 (filed Feb. 27, 2012) (“Javad Letter”) (claiming that retrofitting can be accomplished in a matter of weeks).

^{13/} Deere Opposition at 8-9.

^{14/} *See* Coalition Opposition at 3.

^{15/} *NTIA Letter* at 1.

interfering with GPS.”^{16/} The Commission’s recent *Public Notice* requesting comment on the International Bureau’s proposal to vacate its *January 2011 Waiver Order* and modify LightSquared’s satellite license to suspend its Ancillary Terrestrial Component (“ATC”) authorization also notes that “it is highly unlikely that LightSquared will, in any reasonable period of time,” be able to satisfy the condition imposed upon it to resolve any potential interference to GPS prior to commencing commercial operations.^{17/}

Many commenters agree that these recent developments at the Commission and at NTIA “have rendered LightSquared’s petition moot.”^{18/} Deere, for example, states that “[t]he declaratory rulings sought in the Petition are directly related to LightSquared’s quest to operate a terrestrial network pursuant to its ATC authority . . . [h]owever, the NTIA report and letter, as well as the Commission’s announcement . . . establish that LightSquared has not and, in fact, cannot obtain final authority to begin terrestrial operations . . . [i]n light of these developments, the Petition is moot, and should be dismissed.”^{19/} T-Mobile likewise concludes that the Commission’s proposed action “would effectively render consideration of this public notice [regarding LightSquared’s Petition] moot.”^{20/} While most commenters believe that the Petition has been rendered moot by recent events, the Commission at a minimum should hold

^{16/} *Id.* at 2-3 (quoting Letter from Ashton B. Carter, Deputy Secretary of Defense, and John D. Porcari, Deputy Secretary of Transportation, National Space-Based Positioning, Navigation and Timing Executive Committee, to the Honorable Lawrence E. Strickling, Assistant Secretary for Communications and Information, U.S. Department of Commerce (Jan. 13, 2012)).

^{17/} *See Public Notice Seeking Comment on NTIA Letter* at 4.

^{18/} *See, e.g.,* Deere Opposition at 3; APCO Comments at 3 (noting support of the conclusions in the *NTIA Letter* and indicating that such findings render LightSquared’s Petition moot).

^{19/} Deere Opposition at 5-6.

^{20/} T-Mobile Comments at 2; *see also* Comments of the Consumer Electronics Association, IB Docket No. 10-142 and ET Docket No. 11-109, at 2 (filed Feb. 27, 2012) (“CEA Comments”) (stating that “the International Bureau’s recent proposal to suspend indefinitely LightSquared’s authority to deploy its planned terrestrial services raises further questions as to the objective of [LightSquared’s Petition]”).

LightSquared's Petition in abeyance until it issues a decision regarding the underlying issue of whether LightSquared may proceed with its proposed terrestrial operations and dismiss the Petition when it issues that decision.

In addition, contrary to LightSquared's assertion, its Petition is made moot by recent legislation. LightSquared characterizes that legislation as addressing a "narrow" issue unrelated to the broad questions raised in its Petition. However, it speaks to the precise issue before the Commission, which is the potential for LightSquared's proposed operations to cause harmful interference to GPS.^{21/} In particular, the 2012 Consolidated Appropriations Act prevents the FCC from allowing LightSquared to proceed with its proposed terrestrial network "until the Commission has resolved concerns of potential widespread harmful interference by such commercial terrestrial operations to commercially available [GPS] devices," and the National Defense Authorization Act contains similar wording in order to protect military GPS devices. The Coalition agrees with APCO when it states that "[w]hile APCO opposes LightSquared's attempt to evade its regulatory obligations, the debate is largely moot," in light of Congress's express directive that LightSquared may not proceed until the GPS interference issues have been resolved.^{22/}

The Consumer Electronics Association ("CEA") believes that any action in the instant proceeding should be suspended until the FCC and the public have the opportunity to consider

^{21/} Comments of LightSquared Inc., IB Docket No. 11-109 and ET Docket No. 10-142, at 2-3 (filed Feb. 27, 2012) ("LightSquared Comments") ("[T]he *Petition for Declaratory Ruling* presents issues that are much broader than those raised in the [*January 2011 Waiver Order*] and thus could not be addressed by the statute with its much more targeted focus.").

^{22/} APCO Comments at 2-3; Deere Opposition at 11 (finding that the "Petition should be dismissed because the Commission is prohibited [by the 2012 Consolidated Appropriations Act] from allowing, *in any way*, LightSquared to operate a terrestrial network that causes interference with GPS services") (emphasis in original); USGIC Opposition at 19-20 (showing that "LightSquared's request that it be permitted to interfere with GPS receiver operation is also contrary to recently enacted legislation").

the results of the Comptroller General's study mandated by the Middle Class Tax Relief and Job Creation Act.^{23/} This legislation requires the Comptroller General to undertake a study to ensure that communications systems are "designed and operated so that reasonable use of adjacent spectrum does not excessively impair the functioning" of such systems.^{24/} In conducting this study, the Comptroller General must consider – among other things – the value of improving receiver performance and the operation of services.^{25/} While the Coalition agrees that the Comptroller's findings will inform the broader discussions regarding receiver standards and related issues regarding the more intense use of scarce spectrum, this legislation should not delay the Commission from acting on the instant Petition and the underlying proposal regarding LightSquared's proposed terrestrial network. Rather, the Commission should provide much-needed regulatory certainty to GPS users by promptly dismissing LightSquared's Petition and issuing a decision adopting its proposal to vacate the *January 2011 Waiver Order* and suspend indefinitely LightSquared's ATC authority.

II. THE COMMENTS DEMONSTRATE THAT GPS RECEIVERS ARE ENTITLED TO AND LIGHTSQUARED IS RESPONSIBLE FOR INTERFERENCE PROTECTION, INCLUDING THE COSTS FOR ELIMINATING INTERFERENCE.

If the FCC considers the merits of the Petition for Declaratory Ruling, the record demonstrates that, contrary to LightSquared's assertions,^{26/} GPS receivers are entitled to interference protection. Commenting parties agree that the Commission has made express commitments to protect GPS under its own policies and international agreements.^{27/} Deere

^{23/} CEA Comments at 3-5.

^{24/} Middle Class Tax Relief and Job Creation Act of 2012, H.R. 3630, 112th Cong. § 6408(a) (2012).

^{25/} *Id.* § 6408(b).

^{26/} *See* LightSquared Comments at 1.

^{27/} *See* Coalition Opposition at 12-13.

observes that the FCC identified both in the *Public Notice* in this proceeding and the *Public Notice Seeking Comment on NTIA Letter* that “the ongoing viability of GPS and protection from LightSquared interference is expressly protected under statute.”^{28/} Deere further states that international agreements between the United States and the European Union “obligate both parties to protect each other’s GPS/GNSS signals from interference by the radio frequency emissions of other systems,” and that “[t]he United States also has a long-standing commitment to provide GPS for civil use by other nations.”^{29/}

Numerous parties agree that LightSquared bears the primary responsibility for ensuring that GPS devices are protected.^{30/} Commenters, for example, note that Section 25.255 unambiguously places the obligation squarely on LightSquared to resolve interference caused to GPS.^{31/} CTIA argues that “Section 25.255 of the Commission’s rules places full responsibility for any interference mitigation on the MSS/ATC licensee,” in this case, LightSquared.^{32/} The U.S. GPS Industry Council (“USGIC”) asserts that the Commission itself has recognized that Section 25.255 imposes “an absolute obligation on the MSS/ATC operator to resolve any harmful interference to other services.”^{33/}

^{28/} Deere Opposition at 11.

^{29/} *Id.*

^{30/} *See* Coalition Opposition at 22-23.

^{31/} *See, e.g.*, APCO Comments at 2 (citing Section 25.255 to support its assertion that “LightSquared has a regulatory obligation to correct interference that it causes to existing operations”).

^{32/} Comments of CTIA – The Wireless Association, IB Docket No. 11-109 and ET Docket No. 10-142, at 2 (filed Feb. 27, 2012) (“CTIA Comments”).

^{33/} USGIC Opposition at 13 (citing *Spectrum and Service Rules for Ancillary Terrestrial Components in the 1.6/2.4 GHz Big LEO Bands*, Report and Order and Order Proposing Modification, 23 FCC Rcd 7210, ¶¶ 35, n.118; 36, n.119 (2008)); *see also* T-Mobile Comments at 7-8 (“The FCC’s Part 25 Rules give LightSquared the duty to coordinate with existing services and the obligation to resolve harmful interference. LightSquared must comply with the FCC’s rules and protect commercial GPS devices from interference.”). Although T-Mobile argues that “the burden to resolve interference must not fall on LightSquared alone” and that “[t]he GPS industry must also take responsibility to ensure normal

LightSquared continues to argue that the GPS industry has “repeatedly endorsed” its MSS/ATC operations and therefore should be “estopped” from complaining about them.^{34/} However, as commenting parties agree, LightSquared never had the authority to provide stand-alone terrestrial services, and the GPS industry never endorsed the operations contemplated by LightSquared’s November 2010 “update” to its business plan or the Commission’s *January 2011 Waiver Order*. The Commission’s March 2010 Order approving the transfer of control of LightSquared to its current owner, the *National Broadband Plan*, the *January 2011 Waiver Order*, and other FCC decisions conclusively demonstrate that LightSquared and its predecessors only had the authorization to provide a mobile satellite service, and that the ATC authority was to be used only as a “gap-filling” service to augment the primary satellite service in areas where the satellite service could not reach.^{35/} As USGIC notes, any good faith efforts by the GPS community to allow LightSquared’s predecessors “some flexibility” in deploying limited MSS/ATC facilities should not be construed as “acquiescence to the much broader wireless mobile deployments it now contemplates.”^{36/}

LightSquared also continues to suggest that unlicensed GPS receivers “have no right to protection from authorized operations in the adjacent MSS bands.”^{37/} As commenting parties explain, however, GPS receivers need not be licensed in order to be protected from harmful interference. The Commission has routinely recognized the importance of and sought to protect

GPS operation within a properly managed interference environment,” that assertion, as the Coalition has previously explained is incorrect; there is no “shared responsibility” for addressing interference. *See id.* at 9; Coalition Opposition at 23.

^{34/} LightSquared Comments at 9.

^{35/} *See* Coalition Opposition at 5, 9-16.

^{36/} USGIC Opposition at 4-6 (“The Council has repeatedly refuted these specious and disturbing claims.”).

^{37/} LightSquared Comments at 4, 8.

unlicensed devices, and such protections are especially warranted in instances such as these where critical public interests are at stake.^{38/} USGIC agrees that “it is not necessary for individual GPS receivers to be licensed in order to be protected from harmful interference” and adds that “[s]uggesting that destructive interference to these widely-deployed receiving devices is consistent with FCC rules is little different from suggesting that television or direct broadcast reception can be interfered with because TV receivers or DBS receive dishes are not individually licensed by the FCC.”^{39/} Such an interpretation would drastically limit the FCC’s public interest mandate and jurisdiction, and would have far-reaching consequences.

In fact, GPS is a primary service allocation while LightSquared’s proposed stand-alone terrestrial services amount to a non-conforming spectrum use. As Lockheed Martin Corp. (“Lockheed Martin”) observes, “GPS receivers . . . utilize *primary* service allocations consistent with the Table of Frequency Allocations. . . . [They] are specifically designed to operate in the L-band spectrum environment in which complementary service offerings are provided in adjacent spectrum bands, intentionally clustered in a manner that limits inter-channel interference conflicts.”^{40/} LightSquared’s proposal to operate beyond the scope of the Commission’s rules and decisions means that it cannot complain about the existence of unlicensed devices that operate properly pursuant to FCC rules and consistent with the Table of Frequency Allocations.

^{38/} See Coalition Opposition at 16-21.

^{39/} USGIC Opposition at 3.

^{40/} Lockheed Opposition at 4-6.

GPS receivers function properly and precisely as intended. Contrary to LightSquared's assertions,^{41/} they do not impermissibly "listen" outside of the band in which they operate. The Coalition has repeatedly explained that any "capture" of MSS signals by many high precision GPS devices is, and always has been, intentional and required by LightSquared's own contracts with satellite customers to support GPS augmentation services.^{42/} More generally, as Lockheed Martin notes, these "listening" receivers are utilizing services "that use spectrum in a manner fully consistent with the Table of Allocations; such a design in no way renders the receivers defective or anything less than 'state of the art,'" or prevents them from being entitled to protection from LightSquared's non-conforming operations.^{43/}

LightSquared's vendor, Javad, claims that GPS receiver designs are "faulty" and that "all existing GPS receivers are semi-obsolete [sic]."^{44/} Javad's claims are the self-serving assertions of a party seeking to sell replacement GPS receivers. Moreover, claims that GPS receivers should have been designed differently in the past hinge entirely on LightSquared's false assertion that it was already authorized to build a ubiquitous terrestrial network using satellite spectrum. In any case, parties other than Javad agree that GPS receivers are properly designed and include state-of-the-art technologies. As reported previously by the Coalition, current GPS receivers incorporate state-of-the-art filtering technologies that are designed to resist signals tens of thousands or even millions of times more powerful than the GPS signal from space, and the most

^{41/} See LightSquared Comments at 9 (asking the FCC to find that "the 'overload' effects experienced by GPS receivers that are 'listening' in the MSS band cannot be construed as cognizable 'harmful interference'").

^{42/} See Coalition Opposition at 24-26.

^{43/} See Lockheed Opposition at 4-5 ("GPS receivers, including high precision receivers, often *intentionally* utilize MSS-augmented signals.").

^{44/} See Javad Letter at 1.

sensitive precision GPS devices typically have at least five stages of state-of-the-art filtering.^{45/}

USGIC observes that “LightSquared’s problem is not the design of GPS receivers, but the fact that the dramatic changes in L-band spectrum use it first proposed less than eighteen months ago are ill-suited to the long-standing operating environment in this band, a circumstance of which it should have been fully aware before it proposed ubiquitous terrestrial-only operation.”^{46/}

Notwithstanding the fact that GPS receivers have consistently been designed with innovative, up-to-date technologies and do not represent a “non-conforming use,” LightSquared continues to suggest that the GPS industry bear the responsibility for solving the interference problem, including the costs.^{47/} Parties widely agree that LightSquared is solely responsible for alleviating any interference caused by its proposed network.^{48/} Thus, it also should be solely responsible for paying the costs of alleviating any such interference. As the Utilities Telecom Council (“UTC”) notes, GPS is simply too important to the nation and our national defense, and LightSquared must be responsible for protecting it consistent with the *January 2011 Waiver Order*.^{49/}

^{45/} See Coalition Opposition at 24, 27-31.

^{46/} USGIC Opposition at 8.

^{47/} See LightSquared Comments at 8.

^{48/} See, e.g., Lockheed Opposition at 6 (“There can be no question that the responsibility to prevent harmful interference to RNSS arising from LightSquared’s non-conforming use lies squarely with LightSquared, the nonconforming user.”); APCO Comments at 2 (“LightSquared has a regulatory obligation to correct interference that it causes to existing operations.”); T-Mobile Comments at 1 (agreeing that “the primary responsibility for resolving harmful interference issues lies with LightSquared”); USGIC Opposition at 20 (noting that given the wide disparity in status between GPS’s primary service allocation and LightSquared’s proposal to provide a service largely outside the scope of the allocation tables on a non-protected, non-harmful interference basis, “there is no question where the responsibility to avoid interference lies”).

^{49/} See UTC Comments at 2-3.

III. THERE IS CONSENSUS THAT A DECLARATORY RULING IS NOT THE APPROPRIATE PROCEDURAL VEHICLE FOR ADDRESSING THE ISSUES RAISED IN LIGHTSQUARED’S PETITION; RATHER, SUCH MATTERS MUST BE ADDRESSED IN A RULEMAKING PROCEEDING.

Under the Commission’s rules, declaratory rulings are used to “terminat[e] a controversy or remov[e] uncertainty,” and not to effectuate broad regulatory or policy changes such as those proposed by LightSquared.^{50/} As the Commission has held, “a declaratory ruling may not be used to substantively change a policy,” because policy changes necessitate a rulemaking proceeding with full opportunity for public notice and comment.^{51/}

Even LightSquared recognizes that its Petition raises “broad questions . . . regarding the relative rights between licensed operations in the MSS band and unlicensed GPS devices.”^{52/} The Coalition agrees that the issues raised in the Petition “are considerably broader than those addressed by the [*January 2011 Waiver Order*],” and that the Petition “presents issues and arguments that go well beyond LightSquared’s licensed operations and that address, at a basic level, the relative rights between users of unlicensed GPS devices and licensed operations in any of the bands allocated for MSS.”^{53/} As comments have demonstrated, the broad nature of the

^{50/} 47 C.F.R. § 1.2.

^{51/} *Travelers Information Stations; American Association of Information Radio Operators Petition for Ruling on Travelers’ Information Station Rules; Highway Information Systems, Inc. Petition for Rulemaking; American Association of State Highway and Transportation Officials Petition for Rulemaking*, Order and Notice of Proposed Rulemaking, 25 FCC Rcd 18117, ¶ 12 (2010); *see also U.S. Telecom Ass’n v. FCC*, 400 F.3d 29, 35 (D.C. Cir 2005) (“[F]idelity to the rulemaking requirements of the APA bars courts from permitting agencies to avoid those requirements by calling a substantive regulatory change an interpretative rule.”); *Sprint Corp. v. FCC*, 315 F.3d 369, 374 (D.C. Cir. 2003) (“Whereas a clarification may be embodied in an interpretive rule that is exempt from notice and comment requirements, new rules that work substantive changes in prior regulations are subject to the APA’s procedures.”) (internal citations omitted).

^{52/} LightSquared Comments at 2; *id.* at 3-4 (stating that the *January 2011 Waiver Order* “does not address broader MSS/ATC operations, nor the broader questions regarding the relative rights and obligations of MSS/ATC licensees vis-à-vis unlicensed commercial users of the GPS system, which are the subjects of the *Petition for Declaratory Ruling*”).

^{53/} *Id.* at 4-5.

requests in the Petition is precisely why such matters are inappropriate for the Commission to resolve through a declaratory ruling.^{54/}

As Deere stated, the changes requested by LightSquared would require a modification of the Table of Frequency Allocations to make mobile wireless operations a co-primary service.^{55/} The requested actions would be similar to those recently taken with respect to the 2GHz band, which occurred after a notice and comment rulemaking proceeding.^{56/} There is no reason that the Commission should depart from such procedures here.

^{54/} See, e.g., Deere Opposition at 6-7 (“To the extent that LightSquared’s Petition seeks significant changes to policy and regulation with broad legal, technical and policy implications, it should be dismissed as an inappropriate vehicle in which to make such sweeping revisions. . . . Rather, significant regulatory and marketplace changes, such as those contemplated by the Petition, are more properly addressed in the context of a petition for rulemaking, where the proposed changes to existing policy are specifically spelled out, sufficient public notice is given, and public input is accepted to enable the Commission to determine whether to propose rule changes.”); UTC Comments at 3 (“The relief that LightSquared requests would have far-reaching implications beyond the immediate situation, and should be addressed – if at all – in a separate proceeding. . . . Ultimately, it is the FCC’s decision whether to take up a rulemaking to address the broader implications of the relief that LightSquared is seeking, but the FCC should not address it in the narrow context of LightSquared’s waiver.”); Lockheed Opposition at 2 (“If granted, the Petition would change, not clarify, the rules by which LightSquared has sought to proceed with plans for its terrestrial service. That is not the function of a declaratory ruling. Such substantive departures from previously considered and settled conditions, when appropriate, require full notice-and-comment proceedings.”); USGIC Opposition at 1-2 (“An agency declaratory ruling is not the proper vehicle for upending settled expectations of current spectrum users. A declaratory ruling is inherently interpretive in nature, designed to address a gray area in otherwise established FCC rules and policies, not to impose new or different requirements or otherwise reverse course.”).

^{55/} Deere Opposition at 7-8.

^{56/} See *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, 26 FCC Rcd 5710, ¶ 2 (2011); see also *DBSD North America, Inc., Debtor-in-Possession; New DBSD Satellite Services G.P., Debtor-in-Possession; Pendrell Corporation, Transferor; and TerreStar License Inc., Debtor-in-Possession, Assignor, and DISH Network Corporation, Transferee; and Gamma Acquisitions L.L.C., Assignee, et al.*, IB Docket Nos. 11-150 and 11-149, Order, DA 12-332, ¶ 29 (rel. March 2, 2012) (finding that the “unique characteristics of this band, including the possibility of converting it to full terrestrial use, also make it in the public interest to consider the issues raised by the request to waive certain non-technical ATC provisions in the rulemaking context”).

While LightSquared is correct that the Commission has ample authority to resolve interference issues,^{57/} the Commission in the *January 2011 Waiver Order* decided to exercise that authority by expressly mandating – and setting forth the specific terms governing – the interference resolution process in this instance. This interference resolution process has involved countless hours of testing and analysis of LightSquared’s various proposals by public and private parties. LightSquared’s assertions that the Commission has broad authority to resolve spectrum interference does not justify why the interference resolution process the Commission adopted to resolve interference in this specific proceeding is not an appropriate exercise of that authority. Any inquiry broader than that contemplated by the *January 2011 Waiver Order*’s extensive interference resolution process must be addressed in a separate rulemaking proceeding.

IV. WHILE LIGHTSQUARED IS SOLELY RESPONSIBLE FOR ADDRESSING ANY INTERFERENCE CAUSED TO GPS, THE GPS COMMUNITY REMAINS COMMITTED TO ASSESS RECEIVER PERFORMANCE, WHILE ENSURING ADEQUATE PROTECTION OF GPS SERVICES IN THE FUTURE.

The Coalition recognizes the need for more spectrum to be made available for terrestrial mobile broadband, but agrees with commenters that this should not come at the expense of harming existing, heavily relied upon services like GPS.^{58/} There is agreement that repurposing

^{57/} LightSquared Comments at 6-9.

^{58/} See, e.g., Idaho Letter at 1 (“We recognize the importance of broadband technology and the many benefits it brings to our society, and we are especially anxious to expand opportunities for broadband services that can serve our substantial rural population. However, we also recognize the importance of global navigation satellite systems and GPS, which are used daily across Idaho in such critical applications as precision agriculture, highway transportation and road construction, emergency management, surveying, scientific research, and recreation.”); T-Mobile Comments at 2-7 (stating that “T-Mobile strongly supports the Commission’s efforts to make additional spectrum available for wireless broadband,” but cautioning that “the impact of LightSquared’s operations on other services deserves careful consideration”); CEA Comments at 2 (applauding “the Commission’s continued efforts to make additional spectrum available for mobile broadband services,” but stating that in light of recent events, “the Commission should not move forward with the instant proceeding”).

spectrum for terrestrial broadband services must take into account incumbent operations in neighboring bands and must ensure that such operations are adequately protected.^{59/}

The Coalition notes that various federal entities have pledged to study receiver performance. For instance, the *NTIA Letter* states that the Executive Steering Group of the Interagency National Executive Committee for Space-Based Positioning, Navigation, and Timing (“EXCOM”) “will move forward this year to develop and establish new GPS spectrum interference standards that will help inform future proposals for non-space commercial uses in the bands adjacent to the GPS signals . . .”^{60/} NTIA also stated that it would encourage the Federal Aviation Administration to initiate an effort to examine the existing GPS aviation receiver standard.^{61/} As mentioned above, the Comptroller General has been directed by Congress to study receiver performance.^{62/} And the Commission has already initiated similar efforts by hosting a workshop on spectrum efficiency and receivers that is taking place concurrent with the submission of these comments.^{63/}

While the Coalition stands ready to fully cooperate with these efforts, it questions whether the Commission has clear authority under the Communications Act to promulgate regulations governing receiver standards.^{64/} In addition, and as recognized by NTIA, standards-

^{59/} *See id.*

^{60/} *NTIA Letter* at 6.

^{61/} *Id.* at 7.

^{62/} *See* Middle Class Tax Relief and Job Creation Act of 2012, H.R. 3630, 112th Cong. § 6408(a) (2012).

^{63/} *Office of Engineering and Technology, Wireless Telecommunications Bureau, and Office of Strategic Planning Announce Workshop on Spectrum Efficiency and Receiver Performance*, Public Notice, DA 12 -280 (rel. Feb. 24, 2012); *Office of Engineering and Technology, Wireless Telecommunications Bureau, and Office of Strategic Planning Announce Workshop on Spectrum Efficiency and Receiver Performance*, Public Notice, DA 12 -378 (rel. March 9, 2012).

^{64/} *See, e.g., Interference Immunity Specifications for Radio Receivers, et al.*, Notice of Inquiry, 18 FCC Rcd 6039, ¶ 22 (2003) (requesting comment on whether the Commission “has the necessary

setting is an incredibly long and complicated process.^{65/} In the end, the Commission and the other federal entities may affirm the Commission’s prior conclusion that receiver performance is a matter “best left to the market.”^{66/}

Other parties have reached the same conclusion. For example, CEA states that “[i]n the event the Commission opts to proceed, it should recognize that market forces have, and will continue, to drive improvements in receiver performance without any need for government intervention.”^{67/} The Coalition further agrees with CEA’s conclusion that “[i]n most circumstances, receiver manufacturers for both licensed and unlicensed uses are under incredible market pressure to reduce receiver susceptibility to interference and to use spectrum as efficiently as possible.”^{68/} Regardless of how the Commission determines to proceed regarding receiver standards, however, such decisions must be made in the context of a rulemaking proceeding where all interested parties have the opportunity to fully evaluate and comment upon

statutory authority to promulgate receiver immunity guidelines and standards”) (proceeding terminated without decision in *Interference Immunity Specifications for Radio Receivers*, Order, 22 FCC Rcd 8941 (2007)); *Spectrum Policy Task Force*, Report, Docket No. 02-135, at 31 (2002) (recommending the enactment of “legislation more explicitly granting . . . authority” to the FCC to promulgate receiver performance standards prior to the Commission’s adoption of such standards); *Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010; Establishment of Rules and Requirements for Priority Access Service*, Second Notice of Proposed Rulemaking, 12 FCC Rcd 17706, ¶ 71 (1997) (“We observe that the Commission’s authority to regulate receiver performance may be limited.”).

^{65/} See, e.g., *NTIA Letter* at 7 (“Changing domestic and international aviation standards for compatible operations with signals in the lower 10 MHz may be possible, but will take many years, and retro-fitting or replacing the GPS receivers to be compliant with the new standards once they are adopted will take many more years.”).

^{66/} See, e.g., *Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010, et al.*, Fourth Notice of Proposed Rulemaking, 15 FCC Rcd 16899, ¶ 57 (2000); *Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010, et al.*, Second Notice of Proposed Rulemaking and Order, 12 FCC Rcd 17706, ¶ 71 (1997) (“In the past, we have generally relied on the market to address receiver standards.”).

^{67/} CEA Comments at 3.

^{68/} *Id.*

the Commission's proposal, and not in the context of a Petition for Declaratory Ruling.

Accordingly, LightSquared's Petition should be dismissed.

V. CONCLUSION

For the reasons set forth above, LightSquared's Petition must be dismissed. The record in this proceeding clearly demonstrates that LightSquared's Petition, which simply reiterates arguments already considered and rejected, serves merely as a distraction from the fundamental conclusion that LightSquared's proposed operations will cause devastating harmful interference to GPS devices. The bottom line is that LightSquared failed to meet the conditions of the FCC's *January 2011 Waiver Order*, as evidenced by NTIA and other agency conclusions, and therefore should not be permitted to proceed. In any event, such conclusions and recent legislation render LightSquared's Petition moot or, at minimum, premature. If the FCC seeks to address the broad arguments regarding the relative rights of spectrum holders that are presented in the Petition, it must address them not through LightSquared's Petition for Declaratory Ruling but in a rulemaking proceeding.

Respectfully submitted,

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