

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
LightSquared Subsidiary LLC	)	RM-11681
	)	
Petition for Rulemaking to Allocate the	)	
1675-1680 MHz Band for Terrestrial	)	
Mobile Use	)	

**REPLY COMMENTS OF LIGHTSQUARED**

LightSquared Subsidiary LLC (“LightSquared”) hereby replies to the comments submitted in the above-referenced proceeding. Those comments respond to a petition for rulemaking filed by LightSquared on November 2, 2012 (the “Allocation Petition”), in which LightSquared requests that the Commission initiate a rulemaking proceeding to amend the U.S. Table of Frequency Allocations to add a primary allocation permitting non-Federal terrestrial mobile use of the 1675-1680 MHz band as an alternative to LightSquared’s use of the 1545-1555 MHz portion of the L Band for terrestrial mobile broadband purposes.

The record in this proceeding establishes that more than “sufficient reasons” exist to initiate such a proceeding. Tellingly, all commenting parties acknowledge the pressing need to free additional spectrum resources for terrestrial mobile broadband uses. Moreover, no commenting party opposes the evaluation of the 1675-1680 MHz band for this purpose. Nor does any party dispute the significant public interest benefits that would be delivered by LightSquared’s 4G wireless network, which would extend competitive mobile broadband service to hundreds of millions of American consumers.

Accordingly, the Commission should issue a notice of proposed rulemaking to commence the proposed proceeding without further delay.

**I. THE RECORD SUPPORTS COMMENCING A PROCEEDING TO PROVIDE FOR THE USE OF 1675-1680 MHZ IN LIGHTSQUARED'S TERRESTRIAL MOBILE NETWORK**

**A. More Than "Sufficient Reasons" Exist To Commence the Proposed Rulemaking Proceeding**

The record in this proceeding establishes more than "sufficient reasons" to warrant the issuance of a notice of proposed rulemaking under Section 1.407 of the Commission's rules.<sup>1</sup> As an initial matter, the Allocation Petition itself establishes a clear public interest case in favor of such issuance. As noted therein, the Commission has recognized an increasingly urgent need to free additional spectrum for mobile broadband applications.<sup>2</sup>

At the outset, it is important to emphasize that the substantial public interest benefits of the proposed allocation proceeding follow from its relation to the comprehensive proposal advanced by LightSquared in recent filings, which include both the Allocation Petition and a series of related applications to modify LightSquared's licenses to permit it to conduct terrestrial operations in the 1675-1680 MHz band.<sup>3</sup> As set forth in the modification applications, LightSquared would permanently relinquish its right to terrestrial use of 1545-1555 MHz and instead relocate those operations to 1670-1680 MHz. This would have the valuable public interest benefit of providing a permanent "guardband" for GPS devices within the L Band, while at the same time making available 10 MHz for a terrestrial broadband network that otherwise would be unlikely to be deployed. Accordingly, a grant of the Allocation Petition would provide specific and substantial public interest benefits.

Recent Commission action—including in the *2 GHz Order* adopted earlier this month—has underscored those public interest benefits. The Commission initiated the *2 GHz* rulemaking proceeding with the expectation that doing so would "yield certain public interest

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<sup>1</sup> 47 C.F.R. § 1.407.

<sup>2</sup> LightSquared Petition for Rulemaking, at 3 (filed Nov. 2, 2012) (seeking terrestrial allocation at 1675-1680 MHz) ("Allocation Petition").

<sup>3</sup> See LightSquared Modification Applications, IBFS File Nos. SAT-MOD-20120928-00160, SAT-MOD-20120928-00161, and SES-MOD-20121001-00872; Allocation Petition.

benefits, including the removal of regulatory barriers that impede the Commission’s goal of terrestrial mobile broadband services in the 2 GHz band.”<sup>4</sup> In modifying the framework applicable to 2 GHz MSS, the Commission recognized the value in “[e]nabling this band to be used efficiently for flexible, commercial use . . . .”<sup>5</sup>

The *2 GHz Order* recognizes that the short-term prospects for freeing additional spectrum for mobile broadband are quite limited. As the Commission observes in that order, “the availability and quality of wireless broadband services is likely to become constrained if additional spectrum is not made available to enable network expansion and technology upgrades.”<sup>6</sup> This could lead to “higher prices, poor service quality, an inability for the U.S. to compete effectively on an international basis, depressed demand and, ultimately, a drag on innovation.”<sup>7</sup>

For similar reasons, the Commission can and should seek to develop mobile broadband use of 1675-1680 MHz band spectrum as proposed by LightSquared. In particular, the proposed allocation would facilitate the implementation of LightSquared’s 4G wireless network, which would extend the benefits of competitive mobile broadband service to hundreds of millions of Americans. As the Commission has recognized, LightSquared’s network would: (i) “provide additional broadband capacity at a time when – as the National Broadband Plan noted – the nation is increasing its use of such services exponentially;” (ii) “enhance competition among current mobile wireless providers;” and (iii) “provide mobile wireless broadband service to traditionally underserved areas.”<sup>8</sup> No party disputes these significant public interest benefits.

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<sup>4</sup> See *Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands*, FCC 12-151, WT Docket No. 12-70, at ¶ 176 (Dec. 11, 2012) (“*2 GHz Order*”).

<sup>5</sup> *Id.* at ¶ 179.

<sup>6</sup> *Id.* at ¶ 177.

<sup>7</sup> *Id.*

<sup>8</sup> *SkyTerra Communications, Inc., Transferor and Harbinger Capital Partners Funds, Transferee*, 25 FCC Rcd 3059, at ¶ 62 (2010).

Moreover, *all* commenters recognize the need to free additional spectrum for mobile broadband use, consistent with the objectives of the *National Broadband Plan*. More specifically: (i) the Coalition to Save Our GPS “recognizes the need for additional spectrum to support the expanding mobile broadband market” and “strongly supports the Commission’s efforts to make additional spectrum available for mobile wireless operations;”<sup>9</sup> (ii) the U.S. GPS Industry Council (“USGIC”) notes that the “expansion of wireless broadband services . . . promises many significant and social benefits important to the public interest;”<sup>10</sup> (iii) Lockheed Martin acknowledges the need to “meet future mobile broadband spectrum requirements;”<sup>11</sup> and (iv) T-Mobile “agrees with LightSquared that additional spectrum should be made available for mobile wireless operators to meet rapidly expanding consumer demands.”<sup>12</sup>

Furthermore, *no* commenting party opposes the commencement of a proceeding to explore the use of the 1675-1680 MHz band for terrestrial mobile broadband services. USGIC “does not object as a general matter to an inquiry assessing the possible addition of a terrestrial mobile allocation in the 1675-1680 MHz band[.]”<sup>13</sup> Similarly, the Coalition “takes no position on the potential use of the 1675-1680 MHz band for terrestrial mobile operations.”<sup>14</sup> T-Mobile goes so far as to observe that “the 1675-1680 MHz band may be helpful to meet [additional commercial mobile wireless spectrum] requirements.”<sup>15</sup> Even Lockheed Martin, although it styles its pleading as an “Opposition” to the Allocation Petition, “emphasizes at the outset that at this time it *neither supports nor opposes non-Federal terrestrial mobile use of the 1675-1680*

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<sup>9</sup> Comments of the Coalition to Save Our GPS, at 3 (Dec. 10, 2012) (“Coalition Comments”).

<sup>10</sup> Comments of the U.S. GPS Industry Council, at 2 (Dec. 10, 2012) (“USGIC Comments”).

<sup>11</sup> Opposition of Lockheed Martin Corporation, at 2 (Dec. 10, 2012) (“Lockheed Martin Opposition”).

<sup>12</sup> Comments of the T-Mobile USA, Inc., at 2 (Dec. 10, 2012) (“T-Mobile Comments”).

<sup>13</sup> USGIC Comments at 3.

<sup>14</sup> Coalition Comments at 3.

<sup>15</sup> T-Mobile Comments at 3.

*MHz band*” and is amenable to extending a “stand-alone allocation to the mobile service in the 1675-1680 MHz band.”<sup>16</sup>

**B. No Party Raises Any Concern That Warrants Deferring the Commencement of the Proposed Rulemaking Proceeding**

While no party opposes the commencement of a rulemaking to examine a terrestrial mobile use allocation in the 1675-1680 MHz band, certain commenting parties have identified issues that they recommend be factored into any such decision by the Commission. However, these are precisely the types of issues that are typically examined during the course of a proceeding to reallocate spectrum for new purposes. As such, LightSquared has no objection if the notice of proposed rulemaking also explores the types of issues raised by these commenters, including: (i) sharing criteria with the incumbents that will remain in the 1675-1680 MHz band;<sup>17</sup> (ii) transition plans for any incumbents that relocate from the 1675-1680 MHz band;<sup>18</sup> and (iii) compatibility with users in adjacent bands.<sup>19</sup> Nothing in the Allocation Petition precludes, or is intended to preclude, the Commission from examining these important elements of spectrum management.<sup>20</sup>

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<sup>16</sup> Lockheed Martin Opposition at 2, 5 (emphasis added).

<sup>17</sup> While Lockheed Martin and USGIC note that the Commission will need to assess the compatibility of terrestrial wireless operations at 1675-1680 MHz with existing operations of the National Oceanic and Atmospheric Administration (“NOAA”), *see* Lockheed Martin Opposition at 2 and USGIC Comments at 4-5, this is precisely the kind of technical analysis that typically would be evaluated in the course of a rulemaking.

<sup>18</sup> The rulemaking proceeding would be the appropriate forum for identifying appropriate mechanisms to address the types of transition questions posed by the Coalition. *See* Coalition Comments at 4-5.

<sup>19</sup> The rulemaking proceeding also would provide the appropriate forum for addressing the types of “overload” and out-of-band emissions concerns raised by USGIC. *See* USGIC Comments at 4-5.

<sup>20</sup> The Coalition additionally asserts that the Commission must consider whether it has the authority to modify LightSquared’s licenses to allow it to use spectrum in the 1675-1680 MHz band without holding an auction. *See* Coalition Comments at 5-6. As an initial matter, the Commission need not resolve how to license a band in order to allocate that band for a particular service; the two questions are distinct and can be addressed in separate proceedings. In any event, the Commission has ample authority under Section 316 of the Act to modify LightSquared’s licenses to assign it alternative spectrum in

In addition, Lockheed Martin and T-Mobile raise discrete issues with respect to spectrum matters that are ancillary to the Allocation Petition itself—*i.e.*, matters outside of the 1675-1680 MHz band. While these issues should not preclude the commencement of the proposed rulemaking proceeding—particularly because, as discussed above, those commenters themselves do not oppose initiating such a proceeding—LightSquared takes this opportunity to address each of these issues in turn.

*Lockheed Martin.* Lockheed Martin “opposes” the Allocation Petition “[t]o the extent that [it] advances proposals for application and rulemaking actions relating to the 1525-1559 MHz band.”<sup>21</sup> While the Allocation Petition is one component of a larger comprehensive solution intended to facilitate LightSquared’s ability to implement its 4G wireless network, nothing in the Allocation Petition addresses the potential use of the 1525-1559 MHz band; any suggestion to the contrary reflects a misreading of that petition. Rather, the Allocation Petition is focused solely on opening the 1675-1680 MHz band for mobile broadband, which LightSquared would combine with the 1670-1675 MHz band and pair with spectrum in the 1626.5-1660.5 MHz band (both of which other band segments are already licensed)—regardless of the terms and conditions that ultimately may be adopted for terrestrial use of 1525-1559 MHz. Moreover, the comprehensive solution proposed by LightSquared actually would involve LightSquared foregoing some of its terrestrial rights in the 1525-1559 MHz band (in the so-called “Upper 10 MHz”), and deferring its use of its remaining terrestrial rights in that band (in the so-called “Lower 10 MHz”). Those proposals, which are separate and distinct from the Allocation Petition, would change significantly how the 1525-1559 MHz band could be used. Thus, Lockheed Martin’s concern about the potential use of the 1525-1559 MHz band is misplaced in the context of this proceeding.

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order to resolve broad spectrum management issues, *see, e.g., Improving Public Safety Communications in the 800 MHz Band*, 19 FCC Rcd 14969 (2004) (subsequent history omitted)—a point that can and will be addressed when the Commission turns to the licensing of the band.

<sup>21</sup> Lockheed Martin Opposition at 4.

*T-Mobile.* As noted above, T-Mobile does not oppose the Allocation Petition, and in fact acknowledges the potential for 1675-1680 MHz to be a valuable source of additional spectrum for mobile broadband applications. That said, T-Mobile aims to ensure that opening the 1675-1680 MHz band for mobile broadband use would not foreclose the possibility of also opening other bands for this same purpose—1695-1710 MHz in particular.<sup>22</sup> Nothing in the Allocation Petition addresses the 1695-1710 MHz band, or seeks to alter the Commission’s policymaking process with respect to that nearby band. Therefore, as T-Mobile itself states, “LightSquared’s requested use of 1675-1680 MHz does not necessarily conflict with ongoing efforts to make 1695-1710 MHz available for wireless broadband.”<sup>23</sup> To the contrary, the Allocation Petition documents a significant need for additional spectrum that could not be satisfied solely through the 5 MHz available at 1675-1680 MHz. Moreover: (i) the National Telecommunications and Information Administration (“NTIA”) already has identified the 1695-1710 MHz band as a “fast track” band and has proposed to reallocate it from Federal to commercial use;<sup>24</sup> (ii) comments in response to the *2 GHz NPRM* and earlier public notices reflect strong support for reallocating the 1695-1710 MHz band for mobile broadband use;<sup>25</sup> and (iii) even if the 1675-1680 MHz band were allocated for terrestrial mobile use, the Commission would still be under a statutory obligation to auction a total of 15 MHz of spectrum in the 1675-1710 MHz band—with 1695-1710 MHz being by far the most likely candidate.<sup>26</sup>

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<sup>22</sup> See T-Mobile Comments at 1 (urging the Commission to “take no action in response to the Petition that would jeopardize the potential use of 1695-1710 MHz . . .”).

<sup>23</sup> *Id.* at 6.

<sup>24</sup> See National Telecommunications and Information Administration, *An Assessment of the Near-Term Viability of Accommodating Wireless Broadband Systems in the 1675-1710 MHz, 1755-1780 MHz, 3500-3650 MHz, and 4200-4220 MHz, 4380-4400 MHz Bands*, at 1-4 (Oct. 2010) (recommending that 1695-1710 MHz be made available for wireless broadband use within five years).

<sup>25</sup> See generally WT Docket No. 12-70, ET Docket No. 10-123.

<sup>26</sup> See 47 U.S.C. §§ 1451(a)-(b).

## **II. THE COMMISSION NEED NOT RESOLVE ALL ISSUES RELATED TO GPS COMPATIBILITY WITH TERRESTRIAL USE OF THE L BAND BEFORE COMMENCING A RULEMAKING REGARDING 1675-1680 MHZ**

As noted above, LightSquared has proposed a comprehensive and constructive solution that would resolve GPS compatibility issues regarding use of the 1525-1559 MHz band for terrestrial downlinks, while still allowing LightSquared to implement its terrestrial downlinks in other, separate and distinct spectrum segments. More specifically, in recent filings<sup>27</sup> LightSquared has proposed to: (i) permanently forego terrestrial use of the “Upper 10 MHz” downlink band at 1545-1555 MHz (thus providing GPS receivers an additional 10 MHz guardband from terrestrial services); (ii) forego use of the Lower 10 MHz downlink band at 1526-1536 MHz while the Commission actively develops suitable revised operating parameters for terrestrial operations in a public rulemaking process (thus allowing use of that band segment on new terms and conditions at a later date); and (iii) pair the 1670-1680 MHz band for terrestrial downlinks with L-Band uplinks at 1626.5-1660.5 MHz (thus enabling the prompt initial deployment of the LightSquared network).

The Allocation Petition is a component of that larger solution. Yet, the Allocation Petition is focused on the 1675-1680 MHz band, and does not in and of itself involve the 1525-1559 MHz band. Thus, contrary to Lockheed Martin’s suggestion, it would be inappropriate to import technical and policy issues solely related to use of the 1525-1559 MHz band into this proceeding. To do so would create a “chicken and egg” problem where one does not exist. How the Commission might resolve the issue of whether there should be a terrestrial mobile allocation in the 1675-1680 MHz band is a different question than how the Commission may ultimately resolve licensing of that band, or what the terms and conditions for use of 1525-1559 MHz should be. Each of these sets of questions is proceeding on a parallel track in a separate

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<sup>27</sup> See generally LightSquared Modification Applications; Allocation Petition; LightSquared Petition for Rulemaking (filed Sep. 28, 2012) (addressing Lower L-Band issues) (“Lower L-Band Petition”).

proceeding that the Commission already has commenced.<sup>28</sup> It is not uncommon for the Commission to address overlapping application and rulemaking proceedings in this fashion.<sup>29</sup>

The suggestion of the Coalition and USGIC<sup>30</sup> that the Commission ignore LightSquared's comprehensive proposal (of which the Allocation Petition is an integral element), and to instead pursue the proposals made in the *February 2012 Public Notice*,<sup>31</sup> already has been considered and rejected. Just last week, when the Commission tolled the build-out requirements that previously applied to LightSquared, the Commission expressly found that it *would not serve the public interest to address the February 2012 Public Notice at this time*:

[W]e conclude that the public interest in this case is better served by maintaining the status quo by tolling the build-out requirements than by acting first on the *February 2012 Public Notice*, as proposed by commenters, without considering the proposals in LightSquared's *ATC Modification Application and petitions for rulemaking*. Moreover, because pursuant to the *Conditional Waiver Order* LightSquared currently is prohibited from operating terrestrial facilities, we find that there is no substantial prejudice to GPS operations from this approach.<sup>32</sup>

LightSquared seeks spectrum outside of the 1525-1559 MHz band precisely so that it can: (i) avoid the GPS compatibility issues discussed in that notice; and (ii) proceed to

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<sup>28</sup> See *Consumer & Governmental Affairs Bureau Reference Information Center Petitions for Rulemaking Filed*, Report No. 2968 (Nov. 16, 2012); *Federal Communications Commission Invites Comment on LightSquared Request to Modify its ATC Authorization*, DA 12-1863, IB Docket No. 12-340 (Nov. 16, 2012).

<sup>29</sup> See, e.g., *Service Rules and Procedures to Govern the Use of Aeronautical Mobile Satellite Service Earth Stations in Frequency Bands Allocated to the Fixed Satellite Service*, 20 FCC Rcd 51 (2005) (initiating proceeding to develop allocation and service rules for aeronautical mobile satellite service in the Ku Band); *ARINC, Inc.*, 20 FCC Rcd 7533 (2005) (granting ARINC AMSS authorization pending outcome of separate rulemaking proceeding).

<sup>30</sup> See Coalition Comments at 3-4; USGIC Comments at 5.

<sup>31</sup> See International Bureau Invites Comment on NTIA Letter Regarding LightSquared Conditional Waiver, DA 12-214 (Feb. 15, 2012) ("*February 2012 Public Notice*").

<sup>32</sup> See *LightSquared Subsidiary LLC Request for Relief from Build-Out Conditions*, DA 12-2051, IB Docket No. 12-296, at ¶ 14 & n.42 (2012) (emphasis added) (expressly referencing the Allocation Petition).

deploy the 4G wireless network that the Commission repeatedly has found to be in the public interest. As the Commission has already found, a backward-looking consideration of proposals set forth in the *February 2012 Public Notice* more than ten months ago no longer offers the most productive path forward for the Commission or the public. Instead, the Commission should focus on forward-looking, constructive solutions such as those proposed by LightSquared.

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The record in this proceeding establishes more than “sufficient reasons” to commence a proceeding to add a primary allocation for terrestrial mobile use at 1675-1680 MHz. All commenting parties recognize the pressing need for additional spectrum for mobile broadband applications, and no party opposes the commencement of a rulemaking proceeding to evaluate the use of 1675-1680 MHz for this purpose. Accordingly, LightSquared respectfully requests that the Commission promptly issue a notice of proposed rulemaking consistent with LightSquared’s Allocation Petition.

Respectfully submitted,

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December 26, 2012

## CERTIFICATE OF SERVICE

I, Karen R. Sprung, hereby certify that on this 26th day of December, 2012, I caused a true and correct copy of the foregoing “Reply Comments of LightSquared” to be served upon the following, via first-class mail, postage prepaid:

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