

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

In the Matter of

Comment on Recommendations of the
WRC-12 Advisory Committee

IB Docket No. 04-286

COMMENTS OF LIGHTSQUARED SUBSIDIARY LLC

I. Introduction and Summary

LightSquared Subsidiary LLC (“LightSquared”) submits these comments in response to the March 10, 2011 *Public Notice* (“PN”) in the above-captioned proceeding. LightSquared requests that the Commission approve LightSquared’s proposals contained in document WAC/128(08.03.11). LightSquared also provides its response to opposition comments submitted by Inmarsat and the U.S. GPS Industry Council (“USGPSIC”) that are annexed to WAC/128.¹

Two of LightSquared’s proposals are annexed to Document WAC/128. First, LightSquared proposes a future agenda item for WRC-15 pursuant to WRC-12 Agenda Item 8.2 (“AI 8.2”) to address allocation, technical and regulatory matters concerning Integrated MSS Systems and their associated Complementary Ground Components (“CGC”). Second, pursuant to WRC-12 Agenda Item 7, LightSquared proposes modifications to Recommendation 206

¹ See United States of America, *Draft Proposal for WRC-12 Proposed Agenda Item 8.2 for Integrated MSS Systems*, IWG 4-9941, WAC/128 at Annex B & Annex C (2011) (“WAC/128”).

(WRC-07),² seeking to define Integrated MSS Systems, and to provide guidance on notifying CGC stations and on including these systems in administration consultations.

LightSquared's proposals advance U.S. policy and technical goals, as they have been expressed in past submissions to the ITU and in domestic proceedings. Also, the U.S. has already approved the basis of these proposals in other settings. In contrast, the Commission has not endorsed Inmarsat's "alternate plan," nor its claims about burdening the ITU. In any event, Inmarsat's assertions about the burden that CGC supposedly will impose are unfounded. The Commission should similarly reject the contentions of USGPSIC, which seems to suggest that the U.S. should not promote its own domestic MSS policies on an international stage. Furthermore, USGPSIC misconstrues the technical reality of how CGC will operate. It complains about the possibility of an independent terrestrial service, when in fact the CGC will be an integrated satellite-terrestrial service.

II. LightSquared's Proposals Are Based on U.S. Submissions to International Telecommunications Union Meetings, Reflect U.S. Policy and Should Be Approved

LightSquared urges the Commission to support LightSquared's proposals, reconcile them with the National Telecommunications and Information Administration ("NTIA"), and, together with NTIA, recommend that the U.S. Department of State adopt the reconciled proposals as United States Proposals to WRC-12. LightSquared's proposals are based on numerous United States technical and policy submissions to international meetings, are fully consistent with FCC policy, and have been under review and consideration for over a year.

² International Telecommunication Union ("ITU"), Final Acts WRC-07 World Radiocommunication Conference (Geneva, 2007), Recommendation 206 at 531 (2007).

Since LightSquared first brought forward the core of its proposals at the March 11, 2009, meeting of Informal Working Group 4 (“IWG-4”) of the WAC,³ it has consistently revised and simplified its proposals to reflect recommendations made by the United States in its submissions to International Telecommunication Union (“ITU”) technical and policy meetings, and to accommodate feedback from other participants in the United States preparatory process. Those submissions preview possible changes to the international Radio Regulations that are designed to address Integrated MSS System allocation, technical and regulatory matters that should be resolved to ease the deployment of these systems. Most recently, at the March 3, 2011 meeting of IWG-4, LightSquared submitted its two current simplified proposals in WAC/128 as replacements for its prior three proposals contained in WAC/102.⁴

For example, the United States has submitted a number of technical documents to ITU-R WP-4C to address Integrated MSS System technical characteristics and technical matters which have led to ITU-R working documents towards Reports or Recommendations on CGC characteristics and CGC compatibility. Additionally, the United States has submitted documents to the ITU-R Special Committee,⁵ as well as the Conference Preparatory Meeting for WRC-12 (“CPM11-2”).⁶ LightSquared’s most recent proposal revisions reflect both the United States

³ See e.g. United States of America, *Draft Preliminary Views on WRC-11 Agenda Item 1.2*, IWG-4/015 (Drafted October 3, 2009); United States of America, *Draft Preliminary Views on WRC-11 Agenda Item 1.2*, IWG-4/016 (Drafted October 3, 2009); United States of America, *Draft Preliminary Views on WRC-11 Agenda Item 1.2*, IWG-4/017 (Drafted Oct. 3, 2009).

⁴ See IWG-4, *Recommendations Regarding Proposals on Integrated MSS Systems in L-Band Agenda Items 7.4, and 8.2*, Doc.IWG-4/083Rev1, WAC/102 (2010) (“WAC/102”).

⁵ See United States of America, *Draft CPM Text On WRC-12 Agenda Item 7: Interim Procedures for Notification and Recording of Complementary Ground Components of Integrated MSS Systems in the 1 525-1 559 MHz and 1 626.5-1 660.5 MHz Bands*, Document SC/20-E (received Oct., 23, 2010).

⁶ See United States of America, *Draft CPM Text On WRC-12 Agenda Item 7: Interim Procedures for Notification and Recording of Complementary Ground Components of Integrated MSS*

submission to CPM11-2, as well as comments received here and abroad as the United States prepared for, and participated in CPM11-2.

The United States was also the leader in obtaining a regional CITEL⁷ Recommendation which highlights matters Administrations might wish to take into account when deciding to implement Integrated MSS Systems. This Recommendation remains in force and is the regional guidance for deploying CGC stations.⁸

Promoting CGC technology and attendant deployment mechanisms is in the public interest. For example, in its recent *Order and Authorization* granting LightSquared's request for modification of authority for its ancillary terrestrial component, the Commission stated:

[I]f LightSquared successfully deploys its integrated satellite/terrestrial 4G network, it will be able to provide mobile broadband communications in areas where it is difficult or impossible to provide coverage by terrestrial base stations (such as in remote or rural areas and non-coastal maritime regions), as well as at times when coverage may be unavailable from terrestrial-based networks (such as during natural disasters). We also noted that LightSquared's more powerful new satellites could enable the use of small handsets that are very similar to terrestrial handsets in terms of cost and form factor. Moreover, commercial and technological developments suggest the potential for deployment of market-changing broadband networks and mass-market consumer devices that include satellite-enabled broadband coverage. We concluded that LightSquared's proposed integrated satellite/terrestrial 4G mobile broadband network, if realized, could provide several public interest benefits. These include: providing additional broadband capacity when the use of such services is increasing exponentially; enhancing competition among mobile wireless providers; as a wholesale provider, increasing innovation and investment in new consumer devices; and enhancing traditional MSS

Systems in the 1 525-1 559 MHz and 1 626.5-1 660.5 MHz Bands, Document CPM11-2/152-E (Jan. 31, 2011) (Preparatory Meeting for WRC-12 Geneva, 14-25 Feb. 2011).

⁷ The Inter-American Telecommunication Commission (Comisión Interamericana de Telecomunicaciones, or "CITEL") is a unit of the Organization of American States. It is responsible for promoting telecommunication and information and communication technology in the Americas.

⁸ Comisión Interamericana de Telecomunicaciones, Report on The XII Meeting of the Permanent Consultative Committee II: Radiocommunications including Broadcasting, Document OEA/Ser.L/XVII.4.1CCP.II-RAD/doc. 1839/08 rev.1 cor.2, PCC.II/REC. 24 (XII-08), at 32 (June 9, 2009) (This meeting took place in Mar del Plata, Argentina, Sept. 16 to 19, 2008).

offerings by making mobile wireless broadband available in unserved areas and for public safety and homeland security purposes⁹.

The Commission should endeavor to have LightSquared's proposals adopted as U.S. proposals to WRC-12. If they are adopted, LightSquared is prepared to put its resources behind the effort to promote these proposals internationally, thereby, contributing to U.S. success at WRC-12.

III. Response to Inmarsat Comments

The concerns raised by Inmarsat have already been addressed – and noted– previously, and should be rejected here. Inmarsat's comments in WAC/128 Annex B are (effectively) identical to comments it provided last fall in WAC/102(26.10.10).¹⁰ Fundamentally, Inmarsat disagrees with LightSquared's timing¹¹ and approach to the deployment and protection of the CGC component of LightSquared's Integrated MSS System. Specifically, as a basis for its opposition Inmarsat claims the following are “disadvantages” with going forward with LightSquared's proposals:

- A necessity for detailed ITU-R studies.
- Administrative burden on the ITU.

⁹ LightSquared Subsidiary LLC Request for Modification of its Authority for an Ancillary Terrestrial Component, Order and Authorization, IBFS File No. SAT-MOD-20101118-00239, DA 11-133, at 4 ¶ 7 (Rel. Jan. 26, 2011) (“*LightSquared O & A*”) (citing *SkyTerra/Harbinger Order* at 3085-3087, ¶¶ 55-61).

¹⁰ Compare WAC/128 at Annex B with WAC/102.

¹¹ LightSquared's timing for CGC deployment is driven both by its business plan as well as the Commission-mandated schedule for rollout of LightSquared's terrestrial service. See *SkyTerra Commc'ns, Inc., Transferor and Harbinger Capital Partners Funds, Transferee Applications for Consent to Transfer of Control to SkyTerra Subsidiary, LLC*, Memorandum Opinion and Order and Declaratory Ruling, IB Docket No. 08-184, DA 10-535 at Appendix B, Attachment 2 (2010).

- The issue of CGC will be contentious and resource intensive.
- The need to notify thousands of terrestrial stations.

In response to the first of these points, LightSquared notes that every potentially relevant ITU-R study regarding Integrated MSS Systems and CGC is already identified for study in ITU-R documents. Inmarsat is aware of these studies and has participated – through the United Kingdom ITU-R delegations – in ITU-R deliberations on Integrated MSS Systems and CGC technical and compatibility matters. LightSquared, with the cooperation of the United States government, initiated these studies and is working on further ITU-R contributions that will resolve outstanding issues.

As for Inmarsat’s second and third points, what Inmarsat characterizes as an “administrative burden” on the ITU in fact is part of the organization’s primary mission to address international spectrum management, regulatory and technical matters. It comes with the territory that addressing these matters requires resources and at times can be contentious. The United States and ITU sector members such as LightSquared pay dues to the ITU to help fund these functions. As stated above, the ITU-R is already addressing studies related to Integrated MSS Systems. The United States government having submitted documents on Integrated MSS Systems and CGC to the ITU-R plainly believes that the ITU-R should be studying these issues.

The final concern expressed by Inmarsat – that thousands of terrestrial stations might have to be notified – is rooted in a misunderstanding of the ITU’s terrestrial station notification process. The number of CGC stations that would need to be notified would be minimal, because administrations register representative stations over a specified territory, not individual station

deployments.¹² Thus, if LightSquared desired to register terrestrial base stations in the United States, it would ask the FCC to submit representative filings, and not a separate filing for each station it planned to deploy in the United States. The acceptance of notifications and recording of terrestrial stations is normal business for the ITU-R which is already staffed and funded for this function.¹³

IV. Response to U.S. GPS Industry Council Comments

The USGPSIC asserts that LightSquared is seeking “allocations in the L-band MSS frequencies (either for a primary or a secondary mobile allocation) to accommodate CGC.”¹⁴ However, LightSquared has never proposed nor has it advocated for a mobile service allocation in “L-band MSS frequencies.” Quite the opposite: LightSquared has specifically advocated against a separate mobile service allocation that might be put into use independent of any MSS system. LightSquared is proposing only that WRC-15 consider the allocation status of the CGC portion of an Integrated MSS System. Favorable WRC action on the status of CGC could be achieved without necessarily adding a separate mobile service allocation to Article 5 of the Radio Regulations.

USGPSIC suggests that LightSquared’s proposals should not be considered in an international forum because LightSquared’s license is for a “domestic MSS system, and its

¹² Moreover, individual mobile stations are not notified. *See* International Telecommunications Union, *Radio Reg. Resolutions and Recommendations*, Article 11.14 (Vol. 1. 2008 Ed.)(2008).

¹³ At the recent Special Committee meeting, LightSquared representatives had the opportunity to meet informally with ITU-R staff responsible for terrestrial mobile and terrestrial fixed stations. The ITU-R staff agreed that it would be desirable for administrations to notify all of their terrestrial stations (many administrations do not), and that notifying CGC stations would not be problematic. During these discussions, the ITU-R staff also offered a number of helpful suggestions that LightSquared has incorporated into its most recent proposals.

¹⁴ *See WAC/128* at Annex C.

authorization to operate ATC is limited to the United States.”¹⁵ The fact that services are licensed country by country, however, has never been an impediment to ITU consideration. For example, most terrestrial services are domestic services.

In keeping with this principle, the United States on many occasions has advocated WRC proposals for domestically licensed services (for example – spanning several WRC – for IMT and broadband services). Further, it has consistently taken the lead in promoting satellite services (both commercial and those of the United States government), which warrant special international treatment as satellite beams do not conform to national borders.

In this regard, LightSquared’s innovative integrated MSS service has a unique aspect that goes beyond the physical nature of satellite beams. Administrations deciding to deploy CGC service in conjunction with a MSS satellite system will be responsible for authorizing CGC stations within their territories. Currently, there are no provisions in the Radio Regulations for accommodating these stations which may be authorized by one administration, but may be integrated with the MSS system of another administration. USGPSIC’s contention that this matter is a domestic only problem completely misses (or ignores) this point. The ITU and the WRC are exactly where such issues should be addressed.

USGPSIC also argues that there are “serious unresolved technical questions about whether non-integrated mobile stations can operate in the LightSquared MSS spectrum without causing harmful interference to MSS in the same band or to radionavigation satellite-service systems (“RNSS”) operating in the 1559-1610 MHz band.”¹⁶ Therefore, USGPSIC maintains

¹⁵ *Id.*

¹⁶ *Id.*

that the “U.S. cannot put forward to the international community the notion that a mobile allocation of any kind is acceptable in the LightSquared MSS bands.”¹⁷

The USGPSIC has misinterpreted both of LightSquared’s proposals as well as domestic rules and authorizations governing CGC/ATC. First, LightSquared is required to operate an integrated service. The Commission’s recent Order and Authorization granting LightSquared’s Request for Modification of its authority for an Ancillary Terrestrial Component¹⁸ is based on LightSquared offering substantial mobile satellite service and integrated pricing and operating an integrated network.¹⁹ This modification has no impact on the technical limits LightSquared and USGPSIC agreed in order to protect USGPSIC’s constituents’ services.

There is no need to consider the merits of operating an independent mobile service pursuant to a mobile allocation not tied to and constrained by an associated satellite service offering. LightSquared has advocated internationally only for consideration of CGC operated as an integrated component of an MSS system, and has never requested that the FCC allow it to operate an independent terrestrial service domestically. Consequently there are no “unresolved technical questions” regarding proposals for non-integrated mobile stations operating in “LightSquared MSS spectrum” since there is no such proposal.

With regard to adjacent band RNSS, LightSquared notes that this matter is already being addressed in ITU-R WP 4C as stated earlier. Moreover, complete resolution of technical matters is not a prerequisite for proposal or acceptance of a future WRC agenda item. The study of Integrated MSS Systems within the ITU-R is already underway, and these studies are already

¹⁷ *Id.*

¹⁸ *See LightSquared O & A.*

¹⁹ Terrestrial frequencies, whether for a single-mode handset or a dual-mode handset, are assigned by the satellite network control center. This integration – regardless of handset mode – is critical for the successful operation of the network.

addressing many of the technical issues that WRC-12 might request for study in preparation for full consideration of this matter at WRC-15.

There are many examples, spanning many decades, of the United States going forward to WARCs and WRCs with proposals to accommodate services and systems that, (1) were not in operation at all; (2) were not yet licensed in the United States; (3) did not enjoy companion FCC rules or authorizations; and (4) whose technical questions/issues/compatibility were not yet resolved in the ITU. USGPSIC's comments are inconsistent with U.S. precedent in making proposals for future WRC agenda items, are not relevant here and should be disregarded.

V. Conclusion

For the reasons stated above, the objections raised by Inmarsat and USGPSIC are without merit. LightSquared's proposals, moreover, have been under consideration since March 2009 and are consistent with the most recent Commission decisions on ATC and with U.S. policy. Accordingly, the Commission should accept LightSquared's proposals, reconcile them with NTIA and join NTIA in recommending them to the Department of State as United States proposals to WRC-12.

Respectfully submitted,



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