

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
)	
Ligado Networks LLC)	IB Docket No. 11-109
Application to Modify its Ancillary)	IB Docket No. 12-340
Terrestrial Component Authorization)	
)	IBFS File No. SAT-MOD-20151231-00090
)	IBFS File No. SAT-MOD-20151231-00091
)	IBFS File No. SES-MOD-20151231-00981

To: Chief, Satellite Division, International Bureau

COMMENTS OF IRIDIUM COMMUNICATIONS

Iridium Communications Inc. (“Iridium”), by its attorneys, hereby submits these Comments on Ligado’s pending applications to modify its ancillary terrestrial component (“ATC”) authorization to provide terrestrial mobile service in portions of the L-band pursuant to a new set of operational parameters (the “Modification Applications”).¹

I. BACKGROUND

Ligado – or its various predecessors-in-interest – have contemplated ATC operations in the L-band since 2001.² Since the Commission initially authorized mobile-satellite service (“MSS”) operators to provide ATC in 2003,³ the demand for MSS has expanded dramatically;

¹ See *Comment Sought on Ligado’s Modification Applications*, Public Notice, IB Docket No. 11-109, IB Docket No. 12-340, DA 16-442 (rel. Apr. 22, 2016) (the “Public Notice”).

² See Application of Motient Services Inc., File Nos. SAT-LOA-19980702-00066, SAT-AMD-20001214-00171 & SAT-AMD-20010302-00019. Ligado’s predecessors-in-interest include LightSquared Subsidiary LLC, Skyterra Communications, Inc., Mobile Satellite Ventures Subsidiary LLC, Motient Services, Inc., and American Mobile Satellite Company.

³ See *In the Matter of Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands; Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the*

the market for mobile satellite services generated over \$1 billion in 2015. During this time of growth for the MSS industry, no viable ATC/terrestrial network has materialized.

Although Ligado has changed (or proposed to change) the operating parameters of its ATC authorization many times,⁴ it has now emerged from bankruptcy with what may be a concrete plan for operations. While Ligado believes that the adoption of these proposed operational parameters as license conditions will address the “core concerns raised by the GPS Industry,”⁵ these proposed operational parameters raise significant concerns regarding potential interference to Iridium’s MSS network in the “Big LEO” portion of the L-band.

Following the release of the Public Notice, Iridium and Ligado have engaged in discussions to try to develop a mutually agreed upon set of operational parameters that would address Iridium’s significant concerns and allow Ligado to begin offering ATC services.⁶ The

1.6/2.4 GHz Bands, Report & Order and Notice of Proposed Rulemaking, 18 FCC Rcd 1962 (2003)(“*ATC Report & Order*”).

⁴ See, e.g., *In the Matter of Mobile Satellite Ventures Subsidiary LLC; Application for Limited Waiver of On-Ground Spare Satellite Rule*, Memorandum Opinion and Order, 22 FCC Rcd 20548 (Int’l Bur., 2007); *In the Matter of SkyTerra Subsidiary LLC; Application for Modification Authority for an Ancillary Terrestrial Component*, Order and Authorization, 25 FCC Rcd 3043 (Int’l Bur., 2010); *In the Matter of LightSquared Subsidiary LLC; Request for Modification of its Authority for an Ancillary Terrestrial Component*, Order and Authorization, 26 FCC Rcd 566 (Int’l Bur., 2011); Modification Applications of LightSquared Subsidiary LLC, IBFS File Nos. SAT-MOD-20120928-00160, SAT-MOD-20120928-00161, and SES-MOD-20121001-00872 (withdrawn Dec. 31, 2015).

⁵ See Letter from Gerard J. Waldron, Counsel to New LightSquared LLC, to Marlene H. Dortch, Secretary, FCC, IB Docket Nos. 12-340 and 11-109; IBFS File Nos. SAT-MOD-20120928-00160, SAT-MOD-20120928-00161, and SES-MOD-20121001-00872 at 1 (filed Dec. 31, 2015) (“*Ligado Dec. 31, 2015 Ex Parte*”).

⁶ Ligado does not specify the exact nature of the services it intends to offer or whether those services will be integrated with its satellite network or purely terrestrial. It is important for Iridium and other companies with an interest in this proceeding to understand how Ligado’s deployment plans differ from its predecessor entities. As noted in the *Ligado Dec. 31, 2015 Ex Parte*, “[a]fter three years in bankruptcy, New LightSquared emerged recently as a new company with new owners, a new board, and a new approach, and stands ready, willing, and able to

parties are currently in the process of working toward a resolution of these issues. Although, of course, there can be no assurance that one will be forthcoming, the parties are working in good faith and will keep the Commission apprised of developments. However, grant of the current unaltered Modification Applications – based on Ligado’s proposed operational parameters – would result in significant harmful interference to Iridium’s current and future MSS network.

II. IRIDIUM OPERATES THE ONLY TRULY GLOBAL SATELLITE NETWORK FROM A PORTION OF THE L-BAND

Operating the world’s largest commercial constellation of 66 non-geostationary orbit cross-linked satellites, Iridium operates the only fully-meshed, mobile voice and data communications network with truly global coverage. This unique architecture facilitates a low-latency network that can be accessed from remote areas that are underserved by traditional terrestrial operators. In many parts of the world, the Iridium network provides the only safe, reliable platform for mission-critical communications. This critical communication link is now utilized by nearly 800,000 subscribers worldwide.

The linchpin of Iridium’s network is its licensed access to an unpaired portion of the L-band.⁷ Conducting both uplink and downlink operations in this band, the band serves as the operational core of Iridium’s global MSS network. Iridium’s worldwide access to this L-band spectrum allows users to connect with each other or terrestrial networks from any location.

address legitimate issues and put to use this vital 40 MHz of broadband spectrum to the benefit of the American consumer.” *Id.* at 5.

⁷ Specifically, Iridium is licensed to use 8.725 MHz of spectrum between 1616 and 1626.5 MHz (exclusive use of the 1618.725 MHz to 1626.5 MHz band and shared use of the 1617.775 to 1618.725 MHz band). *See In the Matter of Spectrum and Service Rules for Ancillary Terrestrial Components in the 1.6/2.4 GHz Big LEO Bands; Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands*, Second Order on Reconsideration, Second Report & Order, and Notice of Proposed Rulemaking, 22 FCC Rcd 19733, 19752 ¶ 43 (2007), *aff’d sub nom. Globalstar, Inc. v. FCC*, 564 F.3d 476 (D.C. Cir. 2009).

Iridium is furthering its commitment to its industry-leading L-band MSS service with its next-generation constellation – Iridium NEXT – which will begin launching later this year and will facilitate increased bandwidth and speeds for users by leveraging existing L-band service links. Iridium NEXT represents Iridium’s \$3 billion commitment to operating a next generation, industry-leading MSS L-band network.⁸ With Iridium NEXT, Iridium will be able to support even more advanced commercial, public safety and national security applications, including real-time flight monitoring and enhanced safety services. Of course, ensuring that Iridium NEXT will operate without experiencing harmful interference from other satellite or terrestrial operators is of critical importance to global connectivity and our existing and future customers.

III. INTERFERENCE ISSUES CAUSED BY LIGADO’S LATEST PLAN MUST BE RESOLVED PRIOR TO GRANT

Based on the information provided in the Modification Applications, Ligado’s proposed operations would cause significant interference to user terminals utilizing the Iridium network. To protect other MSS spectrum users from harmful interference, the Commission’s rules place the responsibility on the MSS ATC operator to resolve such interference.⁹ The Commission has

⁸ See, e.g., Peter B. de Selding, *First batch of Iridium Next satellites good to go for July SpaceX launch*, SPACE NEWS (Apr. 29, 2016), available at <http://spacenews.com/iridium-says-2nd-generation-constellation-ready-to-launch-with-spacex-starting-in-july/>. Iridium announced the Iridium NEXT program in 2007 with an expected launch date of 2015-2017.

⁹ See 47 C.F.R. § 25.255 (“If harmful interference is caused to other services by ancillary MSS ATC operations, either from ATC base stations or mobile terminals, the MSS ATC operator must resolve any such interference. If the MSS ATC operator claims to have resolved the interference and other operators claim that interference has not been resolved, then the parties to the dispute may petition the Commission for a resolution of their claims.”); see also *ATC Report & Order* at ¶104 (stating that “in the unlikely event that an adjacent MSS or other operator does receive harmful interference from ATC operations, either from ATC base stations or mobile terminals, the ATC operator must resolve such interference.”); *In the Matter of Spectrum and Service Rules for Ancillary Terrestrial Components in the 1.6/2.4 GHz Big LEO Bands; Globalstar Licensee LLC, Authority to Implement an Ancillary Terrestrial Component, Report & Order and Order Proposing Modification*, 23 FCC Rcd 7210, 7223 ¶ 35 (2008) (“Our rules

also consistently demonstrated its commitment to protecting incumbent MSS operations from potential new sources of terrestrial interference.¹⁰

At the same time, the Commission values and encourages negotiation and coordination between the L-band operators in order to resolve potential interference issues.¹¹ Accordingly, as noted above, Iridium and Ligado are currently engaged in good faith efforts to resolve the potential interference issues to reach a mutually beneficial resolution.

impose an absolute obligation on the MSS/ATC operator to resolve any harmful interference to other services.”).

¹⁰ See *In the Matter of Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands; 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; Service Rules for Advanced Wireless Services in the 1915-1920 MHz, 1995-2000 MHz, 2020-2025 MHz and 2175-2180 MHz Bands*, Report & Order and Order of Proposed Modification, 27 FCC Rcd 16102, 16164 ¶160 (2012).

¹¹ See, e.g., *ATC Report & Order* at ¶143 (noting that “[w]hile we adopt rules to prevent harmful interference, we do not intend to prohibit L-band MSS operators from agreeing to less restrictive limitations on MSS ATC. We support and encourage private negotiations among interested parties in the band and will consider waiver requests of these rules based on negotiated agreements.”).

IV. CONCLUSION

For the foregoing reasons, the Ligado Modification Applications, if not modified, would result in significant harmful interference to Iridium's MSS network. Therefore, the parties will work together to reach a resolution or advise the FCC that a solution has not been developed and a regulatory resolution is necessary.

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CERTIFICATE OF SERVICE

I, Douglas Svor, an attorney in the law office of Sheppard Mullin Richter & Hampton, LLP, hereby certify that I have on this 23rd day of May 2016 caused a copy of the foregoing Comments of Iridium Communications Inc. to be delivered by first-class mail to the following:

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