

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
2018 Biennial Review of Telecommunications Regulations)	IB Docket No. 18-377
)	
Revision or Elimination of Rules Under the Regulatory Flexibility Act, 5 U.S.C. § 610)	CB Docket No. BO 18-31
)	
2016 Biennial Review of Telecommunications Regulations)	IB Docket No. 16-131
)	

To: Federal Communications Commission

REPLY COMMENTS OF IRIDIUM COMMUNICATIONS INC.

I. INTRODUCTION

Iridium Communications Inc. (“Iridium”) hereby responds to the comments filed by Ligado Networks LLC (“Ligado”) on Iridium’s proposal that the Federal Communications Commission (“FCC” or “Commission”) eliminate its Ancillary Terrestrial Component rules (“ATC”).¹ Although Ligado attempts to justify the continued existence of the ATC rules, it fails to provide any substantive legal or policy support for this proposition and makes a number of misleading statements along the way.

¹ Reply Comments of Ligado Networks LLC, IB Docket No. 16-131, CB Docket No. BO 18-31 (filed Jan. 23, 2019) (“Ligado Reply”); Comments of Iridium Communications Inc., IB Docket No. 16-131, CB Docket No. BO 18-31, (filed Oct. 29, 2018) (“Iridium Comment”).

II. OVERWHELMING EVIDENCE AND EXPERIENCE SUPPORT THE ELIMINATION OF THE ATC RULES

A. EFFORTS AT ATC DEPLOYMENT SHOW THE FAILURE OF THE RULES

Ligado’s comments regarding the effectiveness of the ATC rules over the years are wholly unsubstantiated by experience, including Ligado’s own. The ATC rules were intended to allow mobile satellite service (“MSS”) operators to provide better coverage in areas that were difficult to serve by satellite, such as in urban areas or within buildings, without causing interference to other operators. To prevent the ATC from becoming a standalone terrestrial network to the detriment of satellite service, the Commission adopted “gating criteria,” including a requirement that operators continue to provide commercial MSS and a requirement that they provide an integrated MSS/ATC service offering.²

While Ligado praises the “Value of the ATC Rules” and describes them as “an important tool for enabling the rapid development of next generation wireless technology,”³ these accolades for the ATC rules ring hollow when faced with the 15-year reality of failed ATC deployments. No ATC deployment has ever been successfully made under the existing rules, nor has any viable ATC-like service ever succeeded in the market. For its own part, Ligado has spent nearly a decade trying to deploy an ATC system that depends fundamentally on waivers of most of the ATC gating requirements and technical rules that Ligado praises as being so important.⁴ Ligado argues that it has modified its ATC proposal “with an eye toward providing

² 47 C.F.R. §25.149(b)(1)-(5). The gating criteria requires MSS providers to maintain: (1) MSS coverage; (2) a ground spare satellite within one year of commencing ATC operations; (3) commercial availability of MSS service; (4) operation of ATC in the same band as the applicant’s MSS operations; and (5) an integrated MSS/ATC service offering, which could be met through a safe harbor showing that all handsets offered by the operator were dual-mode (MSS and ATC).

³ Ligado Reply at 2.

⁴ See, e.g., Letter Narrative from Jeffrey J. Carlisle, Executive Vice President for Regulatory Affairs & Public Policy, LightSquared, to Marlene H. Dortch, Secretary, FCC, SAT-MOD-20101118-00239 (filed

joint satellite-terrestrial service,”⁵ but Ligado clearly has no interest in providing an “ancillary” terrestrial service and merely seeks to operate a fully terrestrial service using satellite spectrum. The various ATC applications have led to protracted proceedings and misdirected the resources of the FCC, federal government, and private industry while increasing the threat of interference to critical MSS operations. As a result, and despite the pro-ATC rhetoric provided by Ligado, the FCC should eliminate the ATC rules upon a finding that they are no longer in the public interest.

B. LIGADO OVERSTATES ITS SATELLITE SERVICES

Ligado describes itself as a “satellite company,” but with three aging satellites and a fourth never launched, such an appellation is at odds with reality and underscores the misleading nature of the “ancillary” terrestrial service application. In its comment Ligado provides a list of its satellites authorized to provide service in the United States, including, “MSAT-1, MSAT-2, and SkyTerra-1 and SkyTerra-2,”⁶ but a brief look at this list reveals a tellingly bleak picture of Ligado’s satellite service. MSAT-1 and MSAT-2 are each well over 20 years old. Ligado has also stated that MSAT-2 “currently does not carry customer traffic,” and merely serves as a backup for SkyTerra-1.⁷ SkyTerra-1 is described by Ligado as “one of the most sophisticated satellites flying today,”⁸ but such a claim is preposterous given that SkyTerra-1 is nearly 10 years old itself. Then there is SkyTerra-2, which, although it was originally authorized by Canada to

Nov. 18, 2010), https://licensing.fcc.gov/myibfs/download.do?attachment_key=852869. (request by Ligado’s predecessor in interest for waiver of the ATC rule that operators must provide “integrated service”).

⁵ Ligado Reply at 5.

⁶ Ligado Reply at 2, 5.

⁷ See IBFS File No. SAT-MOD-20181214-00090, Exhibit D. Notably Ligado recently failed to file a timely license extension for the authorization of MSAT-2. See IBFS File No. SAT-MOD-20170112-00003. Such behavior is not consistent with a company focused on maintaining a satellite business.

⁸ Ligado Reply at 2.

provide service, was *never launched* by Ligado or its predecessors.⁹ The inclusion of SkyTerra-2 on Ligado’s satellite list is a weak effort to artificially inflate Ligado’s credentials as a satellite operator.

Even with its aging satellite fleet locking up 40 megahertz of prime satellite spectrum, there is no evidence that Ligado has made any significant investment in its satellite service in years, nor that it has any intent to do so in the future. Moreover, it is unclear how many customers Ligado is really serving, but given the lack of any significant announcements about new service offerings from the company in recent years, one can only assume that the number of subscribers is not growing.¹⁰ The only place where Ligado is clearly spending any money is on its lobbying efforts, which amounted to over \$3 million in 2018 alone.¹¹

Ligado accuses Iridium of using “the regulatory process to box out a competitor” and attempting to “suppress competition,”¹² but to the extent that Ligado sees itself as a satellite service provider, as discussed above, Ligado has such a marginal presence in the industry that it is hard to see what competitive edge Iridium would gain through opposing Ligado’s terrestrial plans. Moreover, if Ligado were allowed to pursue its terrestrial network plans at the expense of its satellite network, Ligado would be the one reducing competition in the MSS. Elimination of

⁹ Ligado noted in its application to the FCC to communicate with the Canadian-licensed SkyTerra-2 that intended to launch the satellite in 2011. This launch never happened. LightSquared Subsidiary LLC, Application for Authority to Provide Mobile Satellite Service, including an Ancillary Terrestrial Component, in the United States Using SkyTerra 2, a Canadian-Authorized Satellite to be Located at the 107.3° W.L. Orbital Location, IBFS File No. SES-MFS-20101015-01297 (Oct. 15, 2010). This application was later withdrawn.

¹⁰ At the time of its bankruptcy in 2013 Ligado’s predecessor, LightSquared, reported only approximately 300,000 subscribers in all of North America. *See also ex parte* of Iridium Communications Inc., IB Docket Nos. 12-340, 11-109 at 4 (filed July 26, 2018).

¹¹ The United States Senate, Lobby Disclosure Act Database – Senate, <https://soprweb.senate.gov/index.cfm?event=processSelectFields> (last visited Feb. 19, 2019).

¹² Ligado Reply at 2.

the unnecessary ATC rules will simply end years of wasted resources by all stakeholders and will ensure the protection of valuable services in adjacent frequency bands.

C. THE ATC RULES DO NOT PLAY A PART IN THE “RACE TO 5G”

Ligado praises the Commission’s ongoing C-band and 6 GHz proceedings and misleadingly suggests that ATC rules have a role in winning the “race to 5G.”¹³ No one should be confused—ATC has nothing to do with 5G. There is no doubt that creative solutions and additional spectrum will be needed to fuel the 5G networks of the future, but ATC isn’t one of them. First, the simple fact that the Commission is considering making spectrum available for 5G terrestrial service in other bands does not necessarily mean that spectrum should be made available for terrestrial service in all other bands. As Ligado states in its own comments, “not all spectrum is created equal—and not all spectrum can be used for all purposes.”¹⁴ Second, Ligado’s spectrum has not been recognized for 5G by any international standards body like 3GPP for 5G. While Ligado may be planning to use technologies that mimic 5G, like NB-IoT, not having its spectrum included in the 5G standard denotes the difference between Ligado’s spectrum and those frequency bands under consideration for 5G. Third, the FCC’s ATC rules, with their gating criteria including the satellite handset requirement¹⁵ and the requirement to maintain and the requirement to maintain an in-orbit spare do not promote 5G in any form.¹⁶ Fourth, in both the C-band and 6 GHz proceedings, the Commission has reiterated the importance of protecting important incumbent services from harmful interference; both in the

¹³ Ligado Reply at 7-10.

¹⁴ *Id.* at 10.

¹⁵ 47 C.F.R. §25.149(b)(4). The handsets must be capable of integrated communications with MSS satellite network as well as the MSS ATC component to provide the proposed ancillary terrestrial service.

¹⁶ 47 C.F.R. §25.149(b)(2).

same band and in adjacent bands.¹⁷ The Commission expressed a similar concern about out-of-band interference from ATC systems when it adopted the ATC rules.¹⁸ Ligado, on the contrary, has repeatedly failed to address the significant interference concerns of operators in bands adjacent to its proposed ATC operations. Finally, Ligado fails to see the role of satellite has to play in 5G and the need for satellite spectrum in the future. Terrestrial operations like Ligado’s proposed one that risk causing harmful interference to critical services in adjacent bands have no place in a 5G world.

In fact, not only does Ligado’s proposal do nothing to advance 5G, it actually undercuts other national priorities. The U.S. Administration has repeatedly emphasized the importance of promoting U.S. space policy interests, including by reviving the National Space Council to review government policies¹⁹ and developing recommendations to empower the commercial space industry and restore America’s space leadership.²⁰ The FCC has similarly stressed the importance of space and satellite services to U.S. policy interests. Chairman Ajit Pai has emphasized the Commission’s goal of “ensur[ing] the U.S. remains the most desirable country in the world for licensing, operating, and developing new satellite technologies” and acknowledged

¹⁷ See, e.g., *Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, Notice of Proposed Rulemaking, GN Docket No. 18-122 at ¶ 40 (July 12, 2018) (proposing out of band emission limits to protect incumbent services in adjacent bands and seeking comment on whether additional technical protection criteria are necessary to ensure effective coexistence with adjacent band FSS operations).

¹⁸ *ATC Order*, 18 FCC Rcd at 2017 ¶ 104 (“We adopt technical parameters for ATC operations in each of the bands at issue designed to protect adjacent and in-band operations from interference from ATC.”) (citation omitted). In the event that ATC operations cause harmful interference to MSS operations, the FCC requires the ATC operator to “resolve such interference.” *Id.* This requirement is codified in Section 25.255 of the rules.

¹⁹ See, e.g., Michael Pence, Vice President, Remarks at 34th Space Symposium (Apr. 16, 2018), <https://www.whitehouse.gov/briefings-statements/remarks-vice-president-pence-34th-space-symposium-colorado-springs-co>.

²⁰ See, e.g., Memorandum for Heads for the Vice President, Heads of the Executive Departments and Agencies, *Space Policy Directive-3, National Space Traffic Management Policy*, 83 FR 38969 (Jun. 21, 2018), <https://www.gpo.gov/fdsys/pkg/FR-2018-06-21/pdf/2018-13521.pdf>.

that “satellites are critically important to delivering communication services to millions of Americans.”²¹

III. CONCLUSION

The Commission should ignore the spurious claims presented by Ligado in its comments and consider the elimination of the ATC rules as part of the Commission’s review under the Regulatory Flexibility Act.

Respectfully submitted,

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²¹ See FCC, November 2018 Open Commission Meeting, <https://www.fcc.gov/news-events/events/2018/11/november-2018-open-commission-meeting> (last visited Feb. 19, 2019). To underscore the importance of the space industry, Chairman Pai declared November 2018 to be “Space Month” and devoted the majority of the November 15, 2018 Commission Open Meeting to space-related agenda items. See Ajit Pai, Space Month at the FCC (Oct. 24, 2018), <https://www.fcc.gov/news-events/blog/2018/10/24/space-month-fcc> (last visited Feb. 19, 2019).