

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

In the Matter of)	
)	IB Docket No. 07-253
Spectrum and Service Rules for Ancillary)	RM-11339
Terrestrial Components in the 1.6/2.4 GHz)	
Big LEO Bands)	

COMMENTS OF IRIDIUM SATELLITE LLC

Iridium Satellite LLC (“Iridium”) hereby submits these comments in response to the Federal Communications Commission’s *Second Order on Reconsideration, Second Report and Order, and Notice of Proposed Rulemaking* (“*Second Order and Notice*”) in the above-captioned proceeding on whether Globalstar, Inc. (“Globalstar”) should be allowed to expand its ancillary terrestrial component (“ATC”) authority to encompass all of its assigned spectrum.¹ The Commission correctly anticipates a “high probability of mutual interference problems” if Globalstar were to expand its ATC system into spectrum shared with Iridium.² Globalstar itself acknowledges that interference is likely in the shared portion and fails to explain adequately how it would prevent such interference.³ The Commission should therefore adhere to its tentative

¹ *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*, IB Docket No. 07-253, RM-11339, IB Docket No. 02-364, Second Order on Reconsideration, Second Report and Order, and Notice of Proposed Rulemaking, FCC 07-194, 43 CR 112 (2007) (“*Second Order and Notice*”).

² *Id.* ¶ 38.

³ *See* Request by Globalstar, Inc. To Expands Its Ancillary Terrestrial Component Authority To Encompass Its Full Assigned Spectrum, RM-11339, at 22–24 (filed June 20, 2006).

conclusion not to authorize Globalstar's use of ATC in the portion of spectrum shared between Globalstar and Iridium.⁴

As a consequence of the Commission's decision in its *Second Order and Notice* to reallocate L-band spectrum between Globalstar and Iridium, the remaining amount of shared spectrum is now confined to only 0.95 megahertz.⁵ Limiting Globalstar's ATC operations in this minute amount of spectrum would not preclude Globalstar's ability to provide ATC in the remainder of its spectrum or otherwise diminish Globalstar's ability to provide a competitive combination satellite and terrestrial service. As the Commission tentatively concludes, however, the restriction would serve the public interest in protecting Iridium's satellite service.

The Commission correctly analyzes in the *Second Order and Notice* that Globalstar's use of ATC in the shared spectrum would result in a high likelihood of harmful interference. As the Commission notes, "[t]he addition of ATC communications . . . could easily exceed the communications volume . . . considered to be full loading on Globalstar's system."⁶ The Commission further observes that ATC's primary use in urban areas make it "highly likely that there could be large numbers of simultaneously operating, co-channel ATC mobile terminals," and accurately concludes that "[s]uch levels of system loading could render Globalstar ATC infeasible in the shared spectrum."⁷ In coming to this conclusion, the Commission reasonably relied on information provided by Globalstar itself.⁸

⁴ See *Second Order and Notice* ¶¶ 38, 44.

⁵ See *id.* ¶¶ 37–38.

⁶ *Id.* ¶ 38.

⁷ *Id.*

⁸ See *id.* ¶¶ 16, 38 (citing draft report on spectrum sharing prepared by the Electronic Communications Committee (ECC) of the European Conference of Postal and Telecommunications Administrations).

The Commission typically requires an affirmative showing that proposed changes in service rules will not adversely affect incumbent operations,⁹ but Globalstar has indicated just the opposite. Although Globalstar broadly asserts that it can implement ATC across its entire spectrum while avoiding harmful interference,¹⁰ it also admits that its ATC operations could cause interference to Iridium’s incumbent operations¹¹ and fails to provide any technical evidence that it can protect Iridium from the anticipated interference.

In response to Iridium’s concerns in its filed comments that Globalstar did not explain adequately how it would protect Iridium from interference in the shared spectrum,¹² Globalstar continued to assert abstract assurances that it would adhere to rules designed to avoid interference.¹³ Again, instead of offering any technical evidence that it could accomplish those assertions, Globalstar essentially argued that it would try to avoid interference and that if Iridium suffered harmful interference, it could remedy the situation after the fact. The Commission, however, requires more than such vague assurances before adopting a proposed rule change.¹⁴

⁹ See, e.g., *Amendment of Section 73.202(b), Table of Allotments, FM Broadcast Stations (Boulder Town, Levan, Mount Pleasant and Richfield, Utah)*, Report and Order, 21 FCC Rcd 4850, ¶ 4 (2006) (dismissing a petition for rulemaking because it was “defective” in that it failed to protect another licensee from interference and finding that “rulemaking proponents are required to protect both the license and the construction permit site of stations at the time of filing”).

¹⁰ See Globalstar Petition at 14.

¹¹ See *id.* at 21–23.

¹² See Comments of Iridium Satellite LLC, RM-11339, at 2-3 (filed Aug. 28, 2006).

¹³ See Reply of Globalstar Inc., RM-11339 (filed Sept. 12, 2006).

¹⁴ The Commission is required to promulgate rules to protect from harmful interference and may not take any action that would cause harmful interference. 47 U.S.C. § 303(f) (directing the Commission to make regulations to prevent interference); § 303(y), (y)(2)(c) (granting the Commission “authority to allocate electromagnetic spectrum so as to provide flexibility of use, if . . . such use would not result in harmful interference”).

Additionally, Globalstar has asserted that appropriate coordination requirements and emission limits will ensure that its ATC will not cause interference to other services.¹⁵ Iridium notes that the current out of channel EIRP limits for ATC mobile terminals in the 1610-1626.5 MHz band is -57.1 dBW/30 kHz at the edge of the licensed MSS frequency assignment.¹⁶ If the Commission expands the available spectrum for ATC from 1610- 1615.5 MHz to be nearer to the TDMA band, the Commission must maintain the -57.1 dBW/30 kHz limit for out of channel emissions from ATC Mobile terminals at the edge of the licensed CDMA MSS frequency assignment.¹⁷ This out of channel limit must be applied at the CDMA exclusive spectrum band edge to protect TDMA operations in the adjacent spectrum band.

Finally, allowing Globalstar to expand its ATC operations to spectrum shared with Iridium would undermine the very policies the Commission sought to promote in determining how to allocate that portion of spectrum. In the *Second Order and Notice*, the Commission reconsidered its previous decision to allow 3.1 megahertz of spectrum to be shared between Globalstar and Iridium “based upon new information presented in the record” that demonstrates the risks of sharing.¹⁸ The Commission determined that “the public interest would be better served” by granting equal shares of exclusive spectrum use to Globalstar and Iridium.¹⁹ The Commission nevertheless agreed to accommodate Globalstar’s use of its Channel 7 by allowing for a small portion of shared spectrum.²⁰ This compromise reflected the Commission’s effort to

¹⁵ *Second Order and Notice* ¶ 30.

¹⁶ *See* 47 C.F.R. §25.254 (b) (3).

¹⁷ The band edge for exclusive CDMA use in the Big LEO band is 1617.775 MHz.

¹⁸ *Second Order and Notice* ¶ 14.

¹⁹ *Id.*

²⁰ *Id.* ¶¶ 18,19.

come to the most equitable allocation possible. Allowing ATC on the remaining portion of shared spectrum would undermine that policy decision and exacerbate the very problem the Commission sought to ameliorate in the second order on reconsideration—harmful interference.

For all of these reasons, Iridium urges the FCC to adhere to its tentative conclusion and deny Globalstar access to the spectrum shared with Iridium for its ATC operations.

Respectfully submitted,

IRIDIUM SATELLITE LLC

By: /s/ Donna Bethea-Murphy

R. Michael Senkowski
Jennifer D. Hindin
Catherine M. Hilke
Wiley Rein LLP
1776 K Street, NW
Washington, DC 20006
202.719.7000
Counsel for Iridium Satellite LLC

Donna Bethea-Murphy
Vice President, Regulatory Engineering
Iridium Satellite LLC
6707 Democracy Blvd., Suite 500
Bethesda MD 20817
301.571.6200

Dated: December 19, 2007