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

In the Matter of	)	
	)	
Review of Part 87 of the Commission's Rules	)	WT Docket No. 01-289
Concerning the Aviation Radio Service	)	

REPLY COMMENTS OF IRIDIUM SATELLITE, LLC

Iridium Satellite, LLC ("Iridium"), by its attorneys and pursuant to Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. §§ 1.415 and 1.419, hereby submits its reply comments on the Further Notice of Proposed Rulemaking ("*Further NPRM*") in the above-captioned proceeding.[1] As discussed herein, Iridium urges the Commission to amend its Part 87 Rules governing the Aviation Radio Service to permit Aeronautical Mobile-Satellite (Route) Service ("AMS(R)S") in the 1610-1626.5 MHz band and to accommodate the provision of AMS(R)S using non-geostationary satellite orbit ("NGSO") systems.

I. INTRODUCTION

Iridium is the only provider of truly global, mobile satellite voice and data solutions with complete coverage of the Earth (including oceans, airways and Polar regions). Through a constellation of 66 low-earth orbiting ("LEO") satellites, Iridium delivers essential communications services to and from remote areas where terrestrial communications are not available. The service is ideally suited for industrial applications such as heavy construction, defense/military, emergency services, maritime, mining, forestry, oil and gas and aviation.

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[1] *See* Review of Part 87 of the Commission's Rules Concerning the Aviation Radio Service, *Report and Order and Further Notice of Proposed Rulemaking*, WT Docket No. 01-289 (rel. Oct. 16, 2003) ("*Order and FNPRM*").

Iridium's interest in this proceeding is longstanding, having filed with the Commission an application to modify its system license to include AMS(R)S in 1996.[2]

II. THE COMMISSION SHOULD AMEND PART 87 TO PERMIT USE OF THE 1610-1626.5 MHz BAND FOR AMS(R)S

In this proceeding, the Commission originally proposed to designate the 1610-1626.5 MHz band for AMS(R)S.[3] The Commission subsequently released an *NPRM* in ET Docket No. 02-305 ("*WRC Implementation Proceeding*"), in which it proposed to establish a primary, generic MSS allocation in the bands 1545-1549.5 MHz, 1558.5-1559 MHz, 1646.5-1651 MHz, and 1660-1660.5 MHz, and to delete as superfluous the AMS(R)S allocations in the bands 1549.5-1558.5 MHz and 1651-1660 MHz.[4] The proposed AMS(R)S allocation change was prompted by the Commission's decision to allow for AMS(R)S to be provided in any frequency band with a generic MSS allocation because AMS(R)S.[5]

Given the pendency of the proposal to alter the allocations associated with AMS(R)S in the L-band, the Commission concluded that it would be premature to create a new Part 87 designation for AMS(R)S in the 1610-1626.5 MHz band or to extend priority and

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[2] *See* File No. 18-SAT-M/L-97. This application remains pending.

[3] *See* Review of Part 87 of the Commission's Rules Concerning the Aviation Radio Service, *Notice of Proposed Rulemaking,* WT Docket No. 01-289, 16 FCC Rcd. 19005 (2001) at ¶ 11.

[4] Amendment of Parts 2, 25, and 87 of the Commission's Rules to Implement Decisions from World Radiocommunication Conferences Concerning Frequency Bands Between 28 MHz and 36 GHz and to Otherwise Update the Rules in this Frequency Range, *Notice of Proposed Rule Making*, ET Docket No. 02-305, 17 FCC Rcd. 19756 (2002) at ¶¶ 17-18.

[5] *See* In the Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band, *Report and Order*, IB Docket No. 99-81, 15 FCC Rcd. 16127 (2000) at ¶¶ 62, 64 ("*2 GHz Band Order*").

preemptive access requirements to AMS(R)S operations in this band.[6] The Commission indicated, however, that it would consider acting on this issue after a decision was reached in ET Docket No. 02-305 on whether those L-band allocations for AMS(R)S should be modified.[7]

The Commission has since issued a *Report and Order* in the *WRC Implementation Proceeding* in which it, among other things, adopted the generic MSS allocation proposal for the bands 1525-1559 MHz/1626.5-1660.5 MHz and decided to retain footnote US308 in those bands.[8] Thus, AMS(R)S can now be provided under a generic MSS allocation, with priority and real-time preemptive access being retained for those existing AMS(R)S bands. Accordingly, it is appropriate for the Commission to address expanding the provision of AMS(R)S under Part 87 to other MSS spectrum, including the 1610-1626.5 MHz band.

Previous commenters in this proceeding unanimously supported use of the 1610-1626.5 MHz band for AMS(R)S.[9] Iridium strongly agrees with these commenters that Part 87 should be amended to permit the provision of AMS(R)S in the 1610-1626.5 MHz band. Authorizing AMS(R)S in this band will provide additional spectrum for AMS(R)S and leverage

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[6] *Order and FNPRM* at ¶ 16.

[7] *See id.*

[8] Amendment of Parts 2, 25, and 87 of the Commission's Rules to Implement Decisions from World Radiocommunication Conferences Concerning Frequency Bands Between 28 MHz and 36 GHz and to Otherwise Update the Rules in this Frequency Range, *Report and Order*, ET Docket No. 02-305 (rel. Nov. 4, 2003) ("*WRC Implementation Order*").

[9] *See* Comments of Aeronautical Radio, Inc., WT Docket No. 01-289 (filed July 12, 2004) at 2; Further Comments of The Boeing Company, WT Docket No. 01-289 (filed July 12, 2004) at 4; *see also* Comments of Aeronautical Radio, Inc. and the Air Transport Association of America, WT Docket No. 01-289 (filed March 14, 2002) at 7-8; Comments of The Boeing Company, WT Docket No. 01-289 (filed March 14, 2002) at 5-7; Comments of the Federal Aviation Administration, WT Docket No. 01-289 (filed May 1, 2002) at 3; Reply Comments of Globalstar, L.P., WT Docket No. 01-289 (filed April 15, 2002) at 3-8; Comments of Rockwell Collins, Inc., WT Docket No. 01-289 (filed March 14, 2002) at 5.

the advanced communications capabilities of existing MSS systems -- including the Iridium system. As a result, the aviation community will enjoy substantial benefits flowing from access to advanced communications capabilities, increased competition, and enhanced coverage and reliability of AMS(R)S services. Given the unanimity of commenters and the significant public benefits of authorizing the use of the 1610-1626.5 MHz band for AMS(R)S services, the Commission should amend Part 87 of the Rules to permit such operations.

Iridium does not believe, however, that the Commission should extend priority and real-time preemptive access, embodied in Footnote US308 of the U.S. Table of Allocations, 47 C.F.R. § 2.106, to the provision of AMS(R)S in the 1610-1626.5 MHz band. Although the Commission retained Footnote US308 for in the *WRC Implementation Proceeding* because the "advantages of retaining [it] outweigh the disadvantages,"[10] it stated in this proceeding that "[w]hen we again address this issue, it will be incumbent on the proponents of priority and preemptive access to clearly demonstrate why it is essential that AMS(R)S be accorded such enhanced access to the spectrum resource vis-à-vis other services."[11]

No party has submitted comments in this proceeding in response to the most recent Notice supporting a priority and preemptive access requirement in the 1610-1626.5 MHz band and the Commission need not extend the requirements of Footnote US308 to the band. As indicated by other commenters in this proceeding, intra-network and inter-network priority and preemption can already be ensured through other means, such as FAA regulations, RTCA standards, International Telecommunications Union ("ITU") requirements, or through

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[10] *WRC Implementation Order* at ¶ 20.

[11] *Order and FNPRM* at ¶ 16.

contractual arrangements.[12] And as the Commission itself has stated, an MSS licensee "can enter into contracts with members of the aviation community to provide AMS(R)S in the generic MSS allocation, with appropriate intra-network priority and preemption, without the need for any priority and preemption provision in the U.S. Table of Allocations."[13] Because it not "essential that AMS(R)S be accorded such enhanced access to the spectrum,"[14] there is no reason for the Commission to amend the U.S. Table of Allocations to require priority and preemptive access for AMS(R)S communications in the 1610-1626.5 MHz band.

III. THE COMMISSION SHOULD PERMIT USE OF NON-GEOSTATIONARY SATELLITE NETWORKS TO PROVIDE AMS(R)S

Commenters in this proceeding have argued that the existing AMS(R)S rules are generally designed for satellite networks using geostationary orbit architectures (*i.e.*, the Inmarsat system) and that the Commission should amend Part 87 to enable use of NGSO networks for the provision of AMS(R)S.[15] In particular, Boeing notes in its Further Comments that the FAA recently released a proposed Technical Standard Order ("TSO") on avionics equipment used for AMS(R)S service that utilize new types of satellite communications systems ("Next Generation Satellite Systems" or "NGSS").[16] The NGSS TSO does not identify specific

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[12] *See, e.g.*, Further Comments of The Boeing Company, WT Docket No. 01-289 (filed July 14, 2004) at 5; Comments of The Boeing Company, WT Docket No. 01-289 (filed March 14, 2002) at 5-7; Reply Comments of Globalstar, L.P., WT Docket No. 01-289 (filed April 15, 2002) at 3-8.

[13] *2 GHz MSS Order* at ¶ 64

[14] *Order and FNPRM* at ¶ 16.

[15] *See* Further Comments of The Boeing Company, WT Docket No. 01-289 (filed July 12, 2004) at 9; *see generally* Reply Comments of Globalstar LLC, WT Docket No. 01-289 (filed Aug. 10, 2004).

[16] Further Comments of The Boeing Company, WT Docket No. 01-289 (filed July 12, 2004) at 2.

satellite technologies or architectures but instead specifies general operating capabilities and a requirement to meet minimum operational performance standards ("MOPS") developed for new satellite systems by RTCA.[17] The RTCA MOPS, in turn, provide generic requirements that can be met by satellite systems operating in any orbital configuration, whether GSO or NGSO.[18]

Iridium fully supports the provision of AMS(R)S by NGSO networks and associated amendments to the Part 87 Rules. Iridium currently provides advanced aeronautical communications services using its NGSO MSS system, and extension of these capabilities to provide AMS(R)S services would enhance the communications services offering available to the aviation community. Notably, as a result of its unique NGSO architecture, Iridium's aeronautical offering is the only two-way communications service that includes virtually all the world's ocean and Polar regions. Affording aircraft operators full AMS(R)S coverage and continuous communications capabilities wherever they may be located by permitting NGSO systems such as Iridium to offer such service would strongly serve the public interest

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[17] *Id.*

[18] *Id.*

IV. CONCLUSION

For the foregoing reasons, Iridium respectfully requests that the Commission take action on the *Further NPRM* consistent with these reply comments.

Respectfully submitted,

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