

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

Extending Wireless
Telecommunications Services
To Tribal Lands

WT Docket No. 99-266

To the Commission:

**REPLY COMMENTS OF
MOTOROLA, IRIDIUM NORTH AMERICA, AND IRIDIUM LLC**

Motorola, Inc. ("Motorola"), Iridium U.S., L.P. d/b/a Iridium North America ("INA"), and Iridium LLC ("Iridium"), by their attorneys, hereby submit these reply comments to the Notice of Proposed Rulemaking ("NPRM") issued in the above-captioned proceeding.¹

I. SATELLITES CAN BRING TELECOMMUNICATIONS SERVICES TO UNSERVED AND UNDERSERVED AREAS IMMEDIATELY

The commenters in this proceeding generally support Motorola's, INA's and Iridium's position that satellites represent the only means currently capable of efficiently providing affordable telecommunications services to unserved and underserved areas of the United States.²

¹ *In the Matter of Extending Wireless Telecommunications Services to Tribal Lands*, Notice of Proposed Rulemaking, WT Docket No. 99-266, FCC 99-205 (rel. Aug. 18, 1999), 64 Fed. Reg. 49,128 (Sept. 10, 1999) (all citations to the NPRM hereinafter refer to FCC 99-205 as released on Aug. 18, 1999).

² *See, e.g.*, Comments of the State of Alaska *at* 2 (Nov. 9, 1999) ("Alaska Comments") ("Wireless telecommunications technologies, particularly satellites, have the

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The Commission specifically asked whether adopting policies that encourage the use of satellite technology (or combined satellite-terrestrial wireless technology) could provide incentives for carriers to bring services to tribal lands and other unserved areas.³ It is uncontroverted that satellite technology, alone or in conjunction with other wireless or wireline technologies, represents the only extant means for bringing the promise of modern telecommunication services to many tribal lands and other unserved areas.⁴ Moreover, the

potential to provide the more cost-effective telecommunications services.”); Joint Comments of the Salt River Pima-Maricopa Indian Community and the National Tribal Telecommunications Alliance at 13 (Nov. 9, 1999) (“Salt River Comments”) (“Satellite service providers ... may be uniquely qualified to bring affordable service to Indian reservations and other hard to serve areas with low telephone service penetration rates.”); Comments of Dr. Joseph Gitlin of Johns Hopkins Medical Institutions, *et al.* at 3-4 (Nov. 9, 1999) (“Doctors’ Comments”) (viewing “satellite technologies as a very effective way to bring communications services to tribal lands and other unserved areas.”); Comments of the Satellite Industry Association at 1 (Nov. 9, 1999) (Agreeing that “satellites are an excellent technology for the delivery of basic and advanced telecommunications services to unserved, rural, and economically isolated areas ...”); Comments of Skybridge L.L.C. at 2 (Nov. 10, 1999) (“Given the difficulty and cost of providing [] services through terrestrial means, the FCC ought to take every opportunity to promote alternative delivery systems ...”). It should be noted that Fixed-Satellite Service as well as Mobile-Satellite Service (“MSS”) can provide immediate solutions to unserved areas in the United States.

³ NPRM, ¶ 4.

⁴ Several commenters, however, did suggest or imply that satellites may not offer adequate bandwidth capacity. *See, e.g.*, Comments of the American Association of Educational Service Agencies, *et al* at 2-4 (Nov. 9, 1999); Doctors’ Comments at 3. As discussed above, satellites constitute the only technology that is currently capable of providing basic telecommunications services to many unserved areas. High-speed data transfer rates will come as satellite technologies advance or as wireless technologies supplement satellite services. Moreover, despite the availability of wireless technologies for many years, wireless operators have not brought telecommunications services to the unserved areas at issue in this proceeding. Therefore, it may be years before wireline or wireless providers alone are able to bring basic service, let alone broadband capacity, to many of these unserved areas. Indeed, some tribal villages may never see terrestrial wireless or wireline services due to unique terrain features. For those villagers, satellites will be the only technology capable of bringing telecommunications services.

Commission's preference for competitive neutrality⁵ in developing methods to encourage the provision of telecommunications services in unserved areas requires reliance on marketplace forces and decisions by the beneficiaries of those services to select what is best for them.

II. THE UNIVERSAL SERVICE FUND

As noted, there is no dispute that satellite technology is currently one of the most cost-effective means of providing telecommunications services to many unserved and underserved areas.⁶ However, there must be greater flexibility under existing universal fund rules if satellites are to fulfill their potential to serving these communities in the long run.⁷ Several commenters encourage the Commission to support satellite operators that are willing to provide telecommunications services to unserved and underserved high-cost areas.⁸ The Salt River Community, for example, states that the Commission should help "reduce the costs of providing satellite services to Indian Country" to meet the telecommunications needs of tribal residents.⁹ Other commenters specifically suggest that the Commission be guided in this regard

⁵ Competitive neutrality dictates that universal service support mechanisms and rules should "neither unfairly favor nor disfavor one technology over another." *In the Matter of Federal-State Joint Board on Universal Service*, Report and Order, CC Docket No. 96-45, 12 FCC Rcd. 8776 (1997), as corrected by Errata, CC Docket No. 96-45 (rel. June 4, 1997) ("First Report and Order").

⁶ See note 2 *supra* at 2.

⁷ Motorola, INA and Iridium plan to submit comments focusing on ways to improve the universal service system in response to the Commission's related rulemaking. See *In the Matter of Federal State Joint Board on Universal Service: Promoting Deployment and Subscribership in Unserved and Underserved Areas, Including Tribal and Insular Areas*, Further Notice of Proposed Rulemaking, CC Docket No. 96-45, FCC 99-204 (rel. Sept. 3, 1999), 64 Fed. Reg. 52,738 (Sept. 30, 1999) ("FNPRM").

⁸ See note 2 *supra* at 2

⁹ Salt River Comments at 13.

by the principles of universal service.¹⁰ As Motorola, INA, Iridium and other satellite providers clearly demonstrate, the Commission should look to universal service fund support mechanisms as the best way of assuring that satellite service companies can provide telecommunications services to unserved and underserved areas.¹¹

III. LICENSING-BASED INCENTIVES

The Commission received some comments favoring the use of licensing-based incentives to reward mobile satellite telecommunications licensees that provide or contract to provide telecommunications services on Indian reservations.¹² Most commenters recognize that these incentives should be applied to the retail provider of MSS, not the space system licensee. MSS licensees generally provide only bulk transmission capacity, not retail services to end users.¹³ The space system licensee is already delivering the satellite signals; they do not need incentives. Accordingly, any incentives intended to ensure that remote communities receive access to MSS services appropriately should be directed to the end-user service providers and not space segment licensees.¹⁴

¹⁰ See, e.g., Comments of San Carlos Apache Telecommunications Utility, Inc. at *passim* (Nov. 9, 1999) (“San Carlos Comments”); Comments of the Cellular Telecommunications Industry Association at 4-6 (Nov. 9, 1999); Comments of the United States Cellular Corporation at 8-11 (Nov. 9, 1999).

¹¹ Comments of AirTouch Communications and Globalstar USA, Inc. at 1-3 (Nov. 9, 1999) (“AirTouch Comments”); Comments of AMSC Subsidiary Corporation at 2-3 (Nov. 9, 1999) (“AMSC Comments”); Comments of CCI International N.V. at 3 (Nov. 8, 1999) (“CCI Comments”).

¹² See Comments of Celsat America, Inc. at 2, 5-7 (Nov. 9, 1999); CCI Comments at 4-5.

¹³ Motorola, INA, and Iridium Comments at 7-8.

¹⁴ See Comments of Iridium LLC at 47-50 (June 24, 1999) *in* 2 GHz Proceedings.

IV. RELAXATION OF HEIGHT AND POWER RESTRICTIONS

The Commission also requested and received comment on possible modifications to its terrestrial wireless height and power limits to encourage service to tribal lands and other unserved areas. Several parties urge the Commission to liberalize these restrictions, contending that the changes will allow for broader operation and deployment of wideband radio systems.¹⁵ Motorola, Iridium, and INA have no objection to easing such regulatory restrictions on terrestrial wireless telecommunications as long as there is no increased risk of harmful interference to satellite systems.

The Commission's height and power restrictions were adopted to protect other users of the spectrum in adjacent geographic areas from harmful co-channel interference. However, they also assure that out-of-band emissions stay within reasonable limits to protect other services in adjacent bands. Unfettered increases in height and power restrictions could alter the existing radio environment to the potential detriment of other service providers, including satellite operators. Accordingly, any incentives that increase antenna height or power limits must include consideration of potential for harmful interference to existing satellite services, as well as an analysis of the possible impact on development of future satellite services.

¹⁵ See, e.g., Comments of the Higher Education Parties: Educause American Indian Higher Education Consortium at 3,11 (Nov. 9, 1999); Comments of Cook Inlet Region, Inc. at 3-4 (Nov. 9, 1999); *but cf.* Comments of the Cellular Telecommunications Industry Association at 6-7 (arguing that handsets' low power levels restrict their ability to communicate with distant towers regardless of height or power levels).

V. TRIBAL GOVERNMENT CONSENT

Several commenters have suggested that licensees should be required to seek consent from tribal governments before providing service on tribal land.¹⁶ Tribal governments clearly have the authority to restrict the placement of capital construction on their lands just as other communities exercise reasonable restrictions through zoning ordinances and other land-use laws. It is also well-settled that the Commission has the sole authority to manage and license non-government radio spectrum in the United States.¹⁷ Subscription to such services offered on a private or common carrier basis is a matter of choice by any individuals or group.

Most satellite services do not require any significant construction on tribal lands. The Iridium system, for example, requires that the user have a satellite terminal such as a telephone or pager. Fixed satellite terminals merely require installation of a very small antenna on the roof of or next to a private residence. Individual tribal government consent is appropriate in cases where construction of towers, buildings and related structures may violate lawful tribal land-use restrictions.

¹⁶ See, e.g., Comments of Gila River Telecommunications, Inc. at 2-3 (Nov. 9, 1999); Comments of Cheyenne River Sioux Tribe Telephone Authority at 4-10 (Nov. 9, 1999). This consent issue does not encompass the right of Indian tribes to choose the technology, service or service provider for their telecommunications needs under universal service fund supports, rules or procedures. These matters will be addressed in the Commission's related FNPRM.

¹⁷ FNPRM, ¶ 46; *AB Fillins, Petition for a Declaratory Ruling Preempting the Authority of the Tohono O'odham Legislative Council to Regulate the Entry of Commercial Mobile Radio Service to the Sells Reservation Within the Tucson MSA*, Market No. 77, *Memorandum Opinion and Order*, 12 FCC Rcd. 11755 (1997).

VI. CONCLUSION

Satellite systems are in place today that offer immediate and ubiquitous telecommunications services to tribal lands and other unserved areas in the United States. Iridium, which currently provides satellites services on a global basis, provides just such access. INA and other satellite service retailers can provide satellite services to these areas on an economical basis if the Commission provides specific and sufficient competitively-neutral USF support.

Licensing-based incentives are inappropriate for MSS operators because such incentives are more appropriately directed to the end-user service providers. Further, regulatory incentives such as increases in antenna height and power limits for terrestrial wireless services should only be adopted if they do not create any increased risk of harmful interference to present

or future satellite systems. Lastly, tribal government consent is appropriate for land-use issues, but inapplicable to satellite telecommunications services that require virtually no on-site construction.

Respectfully submitted,

By: 

Philip L. Malet
James M. Talens
Steptoe & Johnson LLP
1330 Connecticut Avenue, N.W.
Washington, DC 20036
(202) 429-3000

Michael D. Kennedy
Corporate Vice President and Director,
Global Spectrum and
Telecommunications Policy
Barry Lambergman
Assistant Director,
Satellite Regulatory Affairs
Leigh M. Chinitz
Manager
Telecommunications Strategy
and Spectrum
Motorola, Inc.
1350 I Street, N.W.
Washington, D.C. 20005
(202) 371-6900

Counsel for Motorola, Inc.

Iridium North America

By: 

Laura A. Lo Bianco
Senior Attorney
Iridium North America
8440 S. River Parkway
Tempe, AZ 85284

Iridium LLC

By: Patricia A. Mahoney

Patricia A. Mahoney
Assistant General Counsel
Regulatory and Trade Policy
Audrey L. Allison
Counsel, Regulatory Matters
Iridium LLC
1575 Eye Street, N.W.
Washington, D.C. 20005
(202) 408-3800

December 9, 1999