

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of
Extending Wireless
Telecommunications Services
To Tribal Lands
WT Docket No. 99-266

NOTICE OF PROPOSED RULEMAKING

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Reply Comments Due: 90 days after publication in the Federal Register

By the Commission: Commissioner Tristani issuing a statement.

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I. INTRODUCTION

1. In this Notice of Proposed Rulemaking (Notice), we seek comment on potential terrestrial wireless and satellite policy initiatives to address the telecommunications needs of Indians<sup>1</sup> living on tribal lands.<sup>2</sup> As we have stated previously, the Telecommunications Act of 1996 instructed the Commission to help ensure that all Americans have access to affordable telecommunications services.<sup>3</sup> Consistent with that mandate, the Commission seeks to secure for

<sup>1</sup> In this Notice, we refer to “Indians” and “Indian tribes.” See The Federally Recognized Indian Tribe List Act of 1994 (Indian Tribe Act), Pub. L. 103-454, 108 Stat. 4791 (1994). The term “Indian” shall include “all persons of Indian descent who are members of any recognized Indian tribe now under Federal jurisdiction, and all persons who are descendants of such members who were, on June 1, 1934, residing within the present boundaries of any Indian reservation, and shall further include all other persons of one-half or more Indian blood. . . . Eskimos and other aboriginal peoples of Alaska shall be considered Indians.” 25 U.S.C. § 479. The term “Indian tribe” means “any Indian or Alaska Native tribe, band, nation, pueblo, village or community that the Secretary of the Interior acknowledges to exist as an Indian tribe.” 25 U.S.C. § 479a(2). The Secretary of the Interior is required to publish in the Federal Register an annual list of all Indian tribes which the Secretary recognizes to be eligible for the special programs and services provided by the United States to Indians because of their status as Indians. 25 U.S.C. § 479a-1.

<sup>2</sup> In this Notice, we use the term “tribal lands” to refer generally to those areas in which principles of tribal sovereignty and federal support for tribal self-determination apply. We note that, in conjunction with this Notice, we are adopting a companion Further Notice of Proposed Rulemaking in which we, among other things, seek comment on the appropriate definition of “tribal lands.” See Federal State Joint Board on Universal Service: Promoting Deployment and Subscribership in Unserved, Tribal and Insular Areas, CC Docket No. 96-45, *Further Notice of Proposed Rulemaking*, FCC 99-204 (adopted August 5, 1999, release pending) (*Universal Service Further Notice*). To the extent that we adopt terrestrial wireless and satellite initiatives to facilitate telecommunications service on tribal lands, we intend to define tribal lands consistently with the definition adopted in the *Universal Service Further Notice*.

<sup>3</sup> See, e.g., Truth-in-Billing and Billing Format, CC Docket No. 98-170, *First Report and Order and Further Notice of Proposed Rulemaking*, FCC 99-72, ¶ 51 (released May 11, 1999). See also Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, § 706 (1996).

consumers living on tribal lands the same opportunities to take advantage of telecommunications capabilities that other Americans have. In addition, we seek comment on whether to extend these initiatives to consumers in other unserved areas.<sup>4</sup>

2. The relatively low incomes of most Indians on tribal lands and the rural (and, thus, generally high cost) environment of most tribal lands have produced extremely low telephone penetration rates – even compared to penetration levels for other Americans of similar economic status living in rural areas.<sup>5</sup> Because telephone service is a necessity in our modern society, this lack of access to basic telecommunications services puts the Indian communities at a tremendous disadvantage. People with serious health problems are subject to significant medical risks if they lack easy access to telephone service. Unemployed workers seeking jobs cannot give prospective employers telephone numbers at which to reach them, nor can they make follow-up calls quickly and easily. Parents at home without a phone cannot be contacted by schools in cases of emergency. As public officials rely more on telephone opinion polls to assess public sentiment and set policies, citizens who cannot be called are often not heard, and their views may be ignored. In addition, communities without phone lines lack access to the Internet, which is quickly becoming one of the most important media that people use not only for communication, but also to retrieve invaluable educational, medical, political, and financial information, among other things.

3. We believe it is important at the outset to recognize the special relationship between the federal government and Indian tribes,<sup>6</sup> as set forth in the Constitution of the United States, treaties, statutes, Executive Orders and court decisions. Historically, the United States has recognized the unique sovereign status of Indian tribes, the special trust relationship between the federal government and Indian tribes, and the federal obligation to guarantee the right of Indian tribes to self-government. The Commission also recognized that with respect to wireless telecommunications, tribal authorities have the right to control the placement of wireless facilities on tribal lands.<sup>7</sup>

4. In this Notice, we seek comment on the potential of terrestrial and satellite wireless technologies to provide basic telephone service on tribal lands and other unserved areas, particularly in remote areas where wireline alternatives would be significantly more expensive. We also seek comment on possible changes to our rules for terrestrial wireless and satellite

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<sup>4</sup> We note that the *Universal Service Further Notice* proposes to define an unserved area as “any area in which facilities would need to be deployed in order for its residents to receive each of the services designated for support by the universal service support mechanisms” and seeks comment on this definition. *Universal Service Further Notice* at Section V.B. To the extent that we adopt terrestrial wireless and satellite initiatives to facilitate telecommunications service to unserved areas, we intend to define tribal lands consistently with the definition adopted in the *Universal Service Further Notice*.

<sup>5</sup> We use 1990 census data below, despite significant concerns about its accuracy for populations living on tribal lands, because we are unaware of any other relevant data that might be more accurate.

<sup>6</sup> See note 1 *supra* for a definition of “Indian tribes.”

<sup>7</sup> 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, 11759 (1997) (decision of a tribal legislative council to prevent the location of cellular sites on its tribal lands was within its authority as a landowner) (*AB Fillins Petition for Declaratory Ruling*).

services that would provide greater incentives for terrestrial wireless and satellite carriers to extend service to tribal lands and other unserved areas. In conjunction with this Notice, we are adopting a companion Further Notice of Proposed Rulemaking in which we propose initiatives to encourage the extension of wireline service to tribal lands and other unserved areas and to expand subsidies for all telecommunications carriers – whether wireline, terrestrial wireless, or satellite – that serve such areas.<sup>8</sup>

## II. BACKGROUND

5. As discussed in greater detail in the *Universal Service Further Notice*, the lack of access on tribal areas to basic telecommunications services is well-documented. A 1998 survey indicated that while the nationwide average penetration rate for those with incomes below \$5,000 living in rural areas was 76.7 percent,<sup>9</sup> the telephone penetration rates for individuals living on tribal lands at that same income level averaged approximately 46.6 percent.<sup>10</sup> In individual cases, penetration rates are often lower still. For example, the penetration rate is 16.1 percent on the San Carlos reservation in Arizona, and 18.4 percent on the Navajo reservation and trust lands in Arizona, New Mexico, and Utah.<sup>11</sup> Clearly, a variety of factors contribute to these low penetration rates, including the geographic isolation and remoteness of many tribal lands, low income levels and high unemployment rates among individuals living on tribal lands.<sup>12</sup> In addition, many tribal governments lack the resources of the states to subsidize the poorest residential communities with revenue from wealthy communities and business centers.<sup>13</sup>

6. Commission representatives have met with many tribal leaders and other representatives of Indian communities to obtain their insights into the problem of low telecommunications penetration on tribal lands. Earlier this year, the Commission held two public hearings at which federal and state officials, tribal officials, consumer advocates, and telecommunications services providers addressed issues such as the costs of delivering services to remote areas having very low population densities, the impact of the size of local calling areas on the affordability of service, the quality of telephone service on tribal lands, the complexities

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<sup>8</sup> *Universal Service Further Notice*, FCC 99-204. In addition to the proposals in this Notice, the *Universal Service Further Notice* raises a number of issues that could affect the ability of wireless and satellite carriers to provide service to tribal and unserved areas. In particular, the *Universal Service Further Notice* seeks comment on the extent of tribal jurisdiction over communications services provided on tribal lands. See *Universal Service Further Notice* at Section III.A. The *Universal Service Further Notice* also seeks comment on the Commission's jurisdiction to designate wireless and satellite carriers as "eligible telecommunications carriers" (ETCs) pursuant to Section 214(e)(6) of the Act, both generally and specifically when the service is being provided on tribal lands. See *Universal Service Further Notice* at Section IV.

<sup>9</sup> See "NTIA, Falling Through the Net III: New Data on the Digital Divide" (July 8, 1999) at Chart I-3, <[http://www.ntia.doc.gov/ntiahome/fttn99/FTTN\\_1/chart-I-3.html](http://www.ntia.doc.gov/ntiahome/fttn99/FTTN_1/chart-I-3.html)>.

<sup>10</sup> See Bureau of the Census, Statistical Brief, *Housing of American Indians on Reservations -- Equipment and Fuels*, SB/95-11, April 1995 at 2 (according to 1990 census data).

<sup>11</sup> See *id.*

<sup>12</sup> In 1990, the unemployment rate among individuals living on tribal lands was approximately 25.6 percent. 1990 Census, CP-2-1 at Tables 175 & 176.

<sup>13</sup> Contrary to popular belief, most tribal lands do not have casinos. See "Facts about Native American Gaming," *Native American Gaming Insider*, Aug. 1997 at 43 (only 23 percent of tribal lands have casinos).

of governmental jurisdiction and sovereignty issues, and the effects of low incomes and high unemployment on tribal lands on telephone service.<sup>14</sup>

7. Because many tribal lands, particularly those in the western United States, are geographically isolated,<sup>15</sup> obtaining the lowest cost for providing basic telephone service to the reservation population may often require use of a terrestrial wireless technology, a satellite technology, or a combination of these technologies. Terrestrial wireless technology includes both mobile services, such as cellular and Personal Communication Service (PCS), and fixed “wireless local loop” services (WLL). A hybrid terrestrial/satellite wireless model would involve a satellite providing the communications link between an isolated community and the nation’s public switched telephone network for long distance telephony, with a terrestrial wireless loop used to link the individual residents and businesses in a particular community for local telephony. Alternatively, satellites can be used alone for long distance and local telephony through the use of handheld phones that can communicate directly with the satellites.

8. Western Wireless, Inc. (Western Wireless) has submitted data to the Commission indicating that the forward-looking long-run cost of cellular service is less than the comparable cost for wireline technology for a number of wire centers, including those in rural areas of Montana and North Dakota.<sup>16</sup> Terrestrial wireless technology also has the potential to extend service to remote tribal lands through fixed wireless systems that provide WLL. Fixed wireless operators claim that their networks have a significantly lower cost structure than wireline systems for two primary reasons. First, aside from the expenses associated with tower siting, wireless networks are free of many of the installation and maintenance costs associated with extending wireline networks to widely dispersed populations over long distances. Second, unlike a wireline network in which an entire market must be wired before initiating service, the capital expenditures of a wireless network can be incrementally incurred as more customers are added. Thus, WLL could offer cost savings for the provision of services to tribal lands.

9. The potential for use of fixed wireless technology on tribal lands and other unserved areas is evidenced by other instances in which carriers have used wireless infrastructure to provide basic telephony in rural or otherwise unserved areas where wireline alternatives are not available. For example, Western Wireless is operating fixed wireless systems in Nevada and North Dakota using its cellular licenses. Under an agreement reached among Nevada Bell, the Nevada Public Service Commission, and Western Wireless to expand basic telephone service to a previously unserved region, Western Wireless provides dialtone service to two small rural

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<sup>14</sup> See Federal Communications Commission Will Hold A Series of Public Hearings on Telephone Service for Indians on Reservations and Seeks Comment from the General Public on All Testimony and Other Evidence Presented Therein, BO Docket No. 99-11, *Public Notice*, 14 FCC Rcd 3331 (rel. Jan. 21, 1999); FCC to Hold Second Public Hearing in Series on Telephone Service for Indians on Reservations, BO Docket No. 99-11, *Public Notice*, 14 FCC Rcd 3522 (rel. March 2, 1999); FCC, “Overcoming Obstacles to Telephone Service to Native Americans on Reservations,” <[http://www.fcc.gov/Panel\\_Discussions/Teleservice\\_reservations/](http://www.fcc.gov/Panel_Discussions/Teleservice_reservations/)>.

<sup>15</sup> U.S. Congress, Office of Technology Assessment, *Telecommunications Technology and Native Americans: Opportunities and Challenges* 74, 80 (1995) (OTA Study). Data now suggests that Indian tribes live on some of the most isolated areas, locations that telecommunications carriers find especially expensive to serve.

<sup>16</sup> See Letter from David L. Sieradzki, Counsel for Western Wireless, Inc., to Magalie Roman Salas, Secretary, FCC, dated July 15, 1998, at 18-20.

communities, Antelope Valley and Reece, using its cellular infrastructure.<sup>17</sup> Operating as a subcontractor to Nevada Bell, Western Wireless provides service at the regular tariffed wireline local rate to the 50 residents of the region.<sup>18</sup> Users connect to the Public Switched Telephone Network (PSTN) by way of a laptop-sized unit provided by Western Wireless. In the small town of Regent, North Dakota, Western Wireless set up a similar network in January 1999.<sup>19</sup> Western Wireless connected to the PSTN through Consolidated Telephone Cooperative (“CTC”), the incumbent local exchange carrier (ILEC) for the area.<sup>20</sup> As of February 8, 1999, Western Wireless had signed up 40 customers, 20 percent of the town’s 268 residents.<sup>21</sup> Western Wireless’ fixed local loop service is priced at \$14.99 per month versus \$16.00 for CTC,<sup>22</sup> and the local calling area includes 15 communities rather than two communities for CTC.<sup>23</sup>

10. In Puerto Rico, Centennial Cellular Corporation (Centennial) has been operating a WLL system since 1997 using its broadband PCS spectrum.<sup>24</sup> Centennial offers both mobile and fixed services from the same platform. Centennial was serving 14,200 “HomePhone” customers as of November 30, 1998.<sup>25</sup> The HomePhone unit looks and functions like a conventional telephone and supports call waiting, conference calling, call transfer, voice mail, one-touch redial, and other features.<sup>26</sup> HomePhone service costs \$29.95 per month for 250 off-peak

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<sup>17</sup> According to Western Wireless, it was able to bring service to the region with approximately \$100,000 worth of infrastructure improvements. Western Wireless claims it would have cost over \$1 million to provide wired service to the approximately 50 customers in the region. Western Wireless Seeks Universal Service Fund Subsidies for Rural Operations, PCS WEEK, Jul. 22, 1998.

<sup>18</sup> Western Wireless Seeks Universal Service Fund Subsidies for Rural Operations, PCS WEEK, Jul. 22, 1998. Nevada Bell makes up the difference between the tariffed rate and Western Wireless’ cellular rates.

<sup>19</sup> North Dakota Governor Edward Shafer and Western Wireless CEO John Stanton placed the inaugural calls on Regent’s new system to North Dakota Senator Byron Dorgan and Federal Communications Commission Chairman William Kennard. WIRELESSNOW, Jan. 8, 1999.

<sup>20</sup> Western Wireless spent \$350,000 building a cell site near town and leased 2,000 phone numbers from the local telephone company for \$320 per month. Bryan Gruley, Battle Lines: As Phone Wars Move to Rural Towns, Tactics Are Growing Rougher; Fighting for Clients, Cash from Subsidies, Upstart Finds Its Main Cable Cut; ‘Not the 900-Pound Gorilla,’ THE WALL STREET JOURNAL, Feb. 10, 1999 (“Feb. 10, 1999 WSJ Article”).

<sup>21</sup> CTIA Notebook, COMMUNICATIONS DAILY, Feb. 9, 1999.

<sup>22</sup> Feb. 10, 1999 WSJ Article.

<sup>23</sup> CTIA Notebook, COMMUNICATIONS DAILY, Feb. 9, 1999. Western Wireless CEO John Stanton claims that Western Wireless provides service at a fraction of the \$200 monthly per subscriber subsidy covered by the Universal Service Fund. *Id.*

<sup>24</sup> Bringing Local Loop to Puerto Rico, WIRELESS BUSINESS & TECHNOLOGY, Jan. 1998, at 27.

<sup>25</sup> Centennial Cellular Corporation, Form S-4, Mar. 3, 1999, at 6. These numbers include Centennial’s product aimed at business customers, known as “BusinessPhone.” See Centennial de Puerto Rico, Centennial’s Wireless System: Benefits & Advantages of Centennial’s Wireless Products & Services (visited Feb. 27, 1999) <<http://www.centennialpr.net/wireless.htm>>.

<sup>26</sup> In addition to an AC power adapter, the phone comes with a 12-volt DC power pack that can be used during power outages or, for example, when the customer wants to take the phone outside. Centennial de Puerto Rico, Centennial Scores a First with CDMA Fixed Wireless Phones (visited Feb. 26, 1999) <<http://www.qualcomm.com/cdma/bulletin/centennial.html>>.

minutes and 30 peak minutes.<sup>27</sup> This rate is for fixed use only: subscribers incur additional charges if they use the phone as a mobile unit.<sup>28</sup> The phone can either be leased or purchased.<sup>29</sup> All calls within Puerto Rico are local and incoming calls are free.<sup>30</sup>

11. Besides these existing wireless services, other new services and spectrum allocations may offer platforms for extension of fixed services to tribal lands and other unserved areas. We have recently licensed numerous carriers in the Wireless Communications Service (WCS) and Local Multipoint Distribution Service (LMDS) bands, and our 24 GHz and 39 GHz proceedings could provide new opportunities for licensing of wireless carriers in tribal lands.<sup>31</sup> We have also recently adopted greater flexibility in our Multipoint Distribution Service (MDS) and Instructional Television Fixed Service (ITFS) “wireless cable” rules to allow the provision of two-way service.<sup>32</sup> While these rules require licensees offering two-way service to avoid interference with adjacent or co-channel systems, these rules could facilitate development of two-way services in tribal lands and other remote areas where the spectrum is not heavily used. In addition, one Indian-controlled carrier, Saddleback Communications, is operating on tribal lands in Arizona under an experimental license in the 3650-3700 MHz band.<sup>33</sup>

12. Satellite technology also represents a potentially cost-effective alternative in serving unserved communities, especially those in remote areas.<sup>34</sup> For example, satellites may offer cost advantages over wireline access alternatives in rural and remote areas, where a limited population cannot provide the economies of scale to justify the deployment costs of a wireline network for each community.<sup>35</sup> Satellites have large coverage areas, and in many cases, can reach an entire nation, thereby having the ability to spread the costs of deployment across a number of communities. Satellites also provide communications opportunities for communities

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<sup>27</sup> Un Telefono Que Se Activa Con Solo Enchufarlo, Promotional Flyer, Centennial de Puerto Rico, Mar. 3, 1999. Additional minutes cost extra. There is also a plan costing \$39.95 per month, which includes 500 off-peak minutes and 90 peak minutes. *Id.*

<sup>28</sup> Un Telefono Que Se Activa Con Solo Enchufarlo, Promotional Flyer, Centennial de Puerto Rico, Mar. 3, 1999.

<sup>29</sup> *Id.* There is a \$69.95 activation charge if you lease the phone. The unit costs \$299. *Id.*

<sup>30</sup> *Bringing Local Loop to Puerto Rico*, WIRELESS BUSINESS & TECHNOLOGY, Jan. 1998, at 27. Centennial does not charge for incoming calls because it is compensated by Puerto Rico Telephone Company, the local exchange carrier (LEC) in Puerto Rico, for connecting them.

<sup>31</sup> See Fourth CMRS Competition Report, FCC 99-136 (adopted June 10, 1999, released June 24, 1999), Appendix F.

<sup>32</sup> Amendment of Parts 1, 21, and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmission, *Report and Order*, 13 FCC Rcd. 19112 (1998), recon. FCC 99-178 (adopted July 14, 1999, released July 24, 1999).

<sup>33</sup> Saddleback Communications is a division of the Salt River Pima-Maricopa Indian Community, a federally recognized self-governing Indian tribe. We note that this band is allocated primarily for government use and is the subject of a separate proceeding. Amendment of the Commission’s Rules with Regard to the 3650-3700 MHz Government Transfer Band, ET Docket No. 98-237, *Notice of Proposed Rulemaking and Order*, 14 FCC Rcd 1295 (1998). We do not address these issues here.

<sup>34</sup> The Establishment of Policies and Service Rules For the Mobile Satellite Service in the 2 GHz Band, IB Docket No. 99-81, RM-9328, *Notice of Proposed Rulemaking*, 14 FCC Rcd 4843, 4886 (1999) (2 GHz Notice).

<sup>35</sup> *Id.*

isolated in geographically extreme areas, such as mountainous regions and deep valleys, where rugged and impassable terrain makes service via cellular and standard telephone lines impractical. Satellites can offer a variety of telecommunications services, from such basic, low bandwidth services including data messaging services and basic telephone service to more advanced, higher bandwidth services, including voice dispatch, video and high speed Internet access.<sup>36</sup>

13. An increasing amount of evidence exists to demonstrate the value that satellites can bring to tribal lands for emergency and basic telecommunications needs. For example, police forces within the Navajo Nation have used American Mobile Satellite Corporation's (AMSC) satellite technology for dispatch services so they can communicate with members of their force.<sup>37</sup> AMSC has also installed public satellite payphones in isolated communities in Arizona so business owners, residents and tourists can communicate with urban centers. The satellite phone represents the only choice today for Tortilla Flat residents and passing tourists who may need to make an emergency phone call.<sup>38</sup> Similarly, GCI Inc. provides voice and private line services to fifty rural Alaskan Bush communities through 3.6-meter satellite earth stations. The earth stations employ state-of-the-art satellite transmission technology called Demand Assigned Multiple Access (DAMA), which allows the users to share satellite transponder bandwidth and to use this bandwidth on an "as needed" basis. This model allows for lower transmission and maintenance costs due to the channels being assigned on demand, and therefore dedicated lines are not needed. Other services offered over the GCI satellite network include: 800/888 toll free, prepaid calling card, and Internet e-mail services.<sup>39</sup>

14. One particular satellite technology increasingly being deployed in developing nations for low cost-telephony is the Very Small Aperture Terminal (VSAT) network.<sup>40</sup> A VSAT network consists of one or many small<sup>41</sup> earth stations that can transmit data, voice, or video via a satellite to a PSTN, the Internet, or a private telecommunications network. VSAT networks eliminate the need to lay miles of terrestrial infrastructure and hence are especially cost-effective in sparsely populated areas. VSAT networks can support emergency, basic, and

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<sup>36</sup> *Id.*

<sup>37</sup> The police force has purchased 15 mobile/unlimited dispatch telephone units and base station facilities. Testimony of Walter V. Purnell, Jr., President and Chief Executive Officer, American Mobile Satellite Corporation, in BO Docket No. 99-11, submitted March 18, 1999.

<sup>38</sup> For years, the six permanent residents of Tortilla Flat, Arizona, had to travel 40 minutes to reach the nearest town in order to make a phone call. Today, they and the many tourists that pass through Tortilla Flat can use a public satellite payphone that was installed by International Connectors and Cable Corporation (ICC) and AMSC. The satellite payphone allows Tortilla Flat residents to better manage their restaurant and gift shop and, more importantly, to have access to 911 emergency help. The satellite phone booth costs \$5,000, and the price for a phone call starts at \$1.00-\$1.50 per minute. Users must have either a credit or debit card to make a phone call. *See* Skytouch Public Satellite Payphones, <<http://www.skyplus.icc.com>>.

<sup>39</sup> *See* <<http://www.gci.com>>.

<sup>40</sup> *See, e.g.*, Merrill Lynch, Global Satellite Marketplace 99, at 92-98 (April 14, 1999); "A Rural Ideal," Theresa Foley, Communications Week International, Aug. 10, 1998, <<http://www.totaltele.com/cwi/209/209nr.html>>.

<sup>41</sup> The terminals usually measure 0.9-1.8 meters, which equates to 3-6 feet.

advanced telecommunication services, including Internet and video conferencing.<sup>42</sup> STM Wireless, a VSAT provider, currently is using the latest VSAT technologies to successfully serve unserved rural, insular, and economically isolated areas in the United States.<sup>43</sup> It offers voice telephone service to anywhere in the United States for 10-15 cents per minute, and also provides Internet and broadband services to schools.<sup>44</sup> Several rural communities in Asia, Africa, and Latin America already have deployed VSAT networks primarily to provide basic telephony service. Titan Wireless, a VSAT provider in the Asia Pacific region, claims that it has developed one of the largest and cost-effective rural telephony networks in the world, and would like to implement this capability in the United States.<sup>45</sup> It states that the cost of a rural VSAT communications terminal ranges from \$3,000 and \$5,000, with a typical per minute cost of 10-15 cents.<sup>46</sup>

15. Satellites also represent an integral technology in linking international Internet service providers ("ISPs") to the U.S. Internet backbone.<sup>47</sup> This service actually represents the fastest growing segment of the fixed satellites services industry. These international ISPs are often located in unserved regions of the world where there is no Internet backbone. Industry analysts estimate that the amount of traffic in this segment doubles every six months.<sup>48</sup>

### III. DISCUSSION

#### A. Encouraging Existing Terrestrial Wireless and Satellite Carriers to Extend Service to Individuals Living on Tribal Lands

16. In this section, we seek comment on possible regulatory initiatives to encourage wireless carriers to provide basic telephony service to tribal lands and other unserved areas. Specifically, we seek comment on the potential viability and effectiveness of the following approaches: (1) relaxing antenna height and transmitter power limitations applicable to service providers in tribal lands and other unserved areas; (2) establishing flexible buildout requirements for carriers providing telephone service to tribal lands and other unserved areas; (3) permitting licensees to expand coverage into adjacent licensing areas in order to provide full coverage to tribal lands and other unserved areas; (4) allowing licensees in certain private (non-CMRS) services to provide basic telephone service to tribal lands and other unserved areas; (5) lifting restrictions on transfer of wireless licenses awarded to designated entities (DEs) for carriers providing service to tribal lands and other unserved areas; (6) modifying regulations to promote

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<sup>42</sup> VSATs offer data transmission rates reaching 514 kbs in the outbound direction and 192 kbs in the inbound direction.

<sup>43</sup> Letter of Emil Youssefzadeh, Chairman and CEO, STM Wireless, Inc., to Chris Murphy and Howard Griboff, FCC, dated July 13, 1999.

<sup>44</sup> *Id.*

<sup>45</sup> Comments of Titan Wireless on the 2 GHz Notice, IB Docket No. 99-81, dated July 21, 1999.

<sup>46</sup> *Id.*

<sup>47</sup> See, e.g., "New Directions in Multimedia: Internet via Satellite," Roger Stanyard and Steve Roberts, May, 1998, <[www.telecoms-mag.com/marketing/articles/may98/stanyard.html](http://www.telecoms-mag.com/marketing/articles/may98/stanyard.html)>.

<sup>48</sup> Such a trend is likely to continue as outbound traffic from the United States outweighs inbound traffic by a ratio ranging from 4:1 to 8:1, according to Intelsat estimates.

the deployment of satellite technology to tribal lands and other unserved areas; and (7) granting of additional flexibility to carriers providing service to tribal lands and other unserved areas based on the existence of a binding agreement between the carrier and the affected tribe.

## 1. Modifications to Height/Power Rules

17. Transmitting power limits, together with other factors, affect the maximum distance from a transmitting antenna that communications may be reliably transmitted, and also the potential for interference with other systems. The purpose of these rules is to promote efficient spectrum usage and to reduce the likelihood of interference between systems, particularly in bands shared with other services. Although these restrictions are important, for the numerous tribal areas that are located in remote or sparsely populated areas, increasing these limits may increase the viability of providing basic telecommunications services to individuals on those lands by expanding the reach of existing systems and by reducing the number of transmitting facilities required to provide service in a certain area.<sup>49</sup> As discussed below, we seek comment on possible modifications to our height/power limits specifically for Rural Radiotelephone and Basic Exchange Telephone Radio Systems (BETRS), given that these systems were intended primarily to serve rural areas. In addition, we ask whether other height/power modifications would encourage service to tribal lands and other unserved areas by providers of services, such as PCS, LMDS, MDS, WCS, 39 GHz services, and 24 GHz services.

### a. Rural Radio/BETRS

18. The Rural Radiotelephone Service (Rural Radio) was established to permit use of VHF and UHF spectrum to provide radio telecommunications services, in particular, basic telephone service, to subscribers in locations so remote that service to them by wireline or other means is infeasible.<sup>50</sup> In the mid-1980s, the Commission authorized the establishment of BETRS in the Rural Radio Service.<sup>51</sup> BETRS may be licensed only to local exchange carriers or others that have been state certified to provide basic exchange telephone service in the area involved.

19. Although there are thousands of existing BETRS lines in service in the United States, our records indicate that relatively few new BETRS systems are being licensed at present, in tribal lands or elsewhere.<sup>52</sup> We seek comment on the degree to which our current BETRS rules limit the ability of licensees to provide basic telephone service to tribal lands because subscriber stations would normally be out of range from the nearest telephone central office.

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<sup>49</sup> See Comments by Karen Buller, National Native American Telecommunications Institute, in BO Docket No. 99-11, at 3, dated January 29, 1999.

<sup>50</sup> See 47 C.F.R. § 22.99.

<sup>51</sup> BETRS uses digital emissions and time division multiple access (TDMA) technology, which allows up to a fourfold increase in lines per RF channel over conventional Rural Radio stations, as well as enhanced quality and privacy. Conventional Rural Radio stations are considered interconnected extensions to the local loop, while BETRS is treated as a local loop service.

<sup>52</sup> Mike Francis of the Navajo Communications Company (“NCC”), which provides telephone service to the Navajo Nation in Arizona, New Mexico and Utah as well as other tribal lands, testified that NCC operates three BETRS in addition to its wireline facilities. See New Mexico Hearing Transcript, BO Docket No. 99-11, pages 84-88, <[http://www.fcc.gov/Panel\\_Discussions/Teleservice\\_reservations/tr-newmx.txt](http://www.fcc.gov/Panel_Discussions/Teleservice_reservations/tr-newmx.txt)>.

20. We also seek comment on whether increasing the height/power limits applicable to BETRS could enhance their viability in tribal lands and other unserved areas. The current height/power limits for BETRS allow central office stations to serve subscriber stations typically located from 40 to 65 kilometers (25 to 40 miles) away. Because there may be subscribers on unserved lands at locations more distant than 40 to 65 kilometers from a telephone central office, we seek comment on whether to allow BETRS systems serving subscribers located on tribal lands and other unserved areas to use the more relaxed height/power limits applicable to conventional Rural Radio stations.<sup>53</sup> This would generally allow a substantial increase in the downlink range of BETRS systems (depending on the intervening terrain).<sup>54</sup> Alternatively, we seek comment on whether it would be reasonable simply to exempt BETRS from any height-power restriction where it is providing service to a tribal land or other unserved area. Would there be a significant interference risk involved?

### **b. Other Services**

21. We also are interested in commenters' views regarding possible height and power modifications for providers of other services, including PCS, LMDS, MDS, WCS, and services in the 39 GHz and 24 GHz bands, and we seek comment on how we might modify these rules to better facilitate the provision of service. For example, as noted above, some Indian tribes have themselves obtained broadband PCS licenses or interests in PCS systems. However, in our hearings on telecommunications issues affecting Indians, we have heard testimony that broadband PCS service on tribal lands is not currently practical because individuals living on tribal lands cannot afford the number of towers that would be required to provide coverage. To address this issue, it has been suggested that we allow higher transmitting power levels for broadband PCS service on tribal lands, so that fewer towers would be needed.<sup>55</sup> We seek comment on this suggestion and ask whether any modifications we might adopt should also be applied to other unserved areas and other types of services.

22. In general, broadband PCS systems that provide mobile telephone service have been designed to operate base stations at antenna heights and power levels significantly below the limits provided in our rules.<sup>56</sup> However, on tribal lands located in remote or sparsely

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<sup>53</sup> Section 22.759(a) of the Commission's rules allows an absolute maximum effective radiated power (ERP) for BETRS central office stations operating in the 454 MHz range at 3500 Watts. *See* 47 C.F.R. § 22.759(a). However, paragraph (b) of that section limits the ERP for central office stations with an antenna height greater than 13 meters (about 40 feet), in accordance with a mathematical formula. Under section 22.737(c), which governs conventional Rural Radio stations, the maximum permitted ERP could be used with antenna heights up to 56 meters (about 184 feet) above ground level. *See* 47 C.F.R. § 22.737(c).

<sup>54</sup> One supplier of rural telephone systems, however, advocates lower powered operations particularly where solar energy is used to power the subscriber station. *See* Obtaining Optimal System Performance and Reliability in Fixed-Point VHF and UHF Radio Telecommunications Systems by Minimizing RF Power Output, by James P. Longnecker, Sr. Applications Engineer, OptaPhone Systems, Inc. and Ronald F. Jones, Communications Consultant, November 1994, found at <<http://www.optaphone.com/noneed.html>>.

<sup>55</sup> Comments by Karen Buller, National Native American Telecommunications Institute, in BO Docket No. 99-11, at 3, dated January 29, 1999.

<sup>56</sup> The maximum power limits for Broadband PCS are found in section 24.232 of the Commission's rules. 47 C.F.R. § 24.232. This rule establishes maximum power limits of 1640 Watts peak equivalent isotropically radiated power (EIRP) for base stations and 2 watts peak EIRP for mobile and portable stations. In addition, broadband PCS base stations are subject to a transmitter power output limit of 100 Watts and an additional peak EIRP limitation as a

populated areas, the potential may exist to extend the service range of PCS base stations through more widely spaced stations and increased antenna height. Because our PCS rules limit transmitter power as antenna height increases, however, this potential may be limited by our current rules. For this reason, we seek comment on whether raising or eliminating PCS antenna height and power limits in tribal lands and other unserved areas would make the deployment of PCS infrastructure to these areas more viable. We also seek comment on whether this approach would increase interference to other PCS applications or other services. Again, we ask commenters to address the need for such modifications to foster service to tribal lands for other types of services as well.

## 2. Liberalized Buildout Requirements

23. The Commission has developed a variety of rules in wireless services that govern the obligation of licensees to construct and operate their facilities to serve an area. These “buildout” rules reflect several basic approaches. Site-based licenses typically come with a requirement to construct and commence operations by a date certain.<sup>57</sup> Some geographic area licenses for mobile services require that service be provided to a certain percentage of the population or of the geographic area encompassed by the license within a specified time.<sup>58</sup> Other services have a requirement that “substantial service” be provided by a date certain.<sup>59</sup> In some cases, such as LMDS and 39 GHz, the substantial service requirement is the only construction requirement for the licensees. In some cases, such as PCS and SMR, the substantial service requirement is an alternative to the specific population/land area requirements (*i.e.*, one-third/two-third coverage). Generally, this alternative showing was adopted to provide licensees with an added degree of flexibility in determining the most efficient use of their spectrum.

24. While these various buildout requirements provide licensees with needed flexibility to determine the nature and scope of their system deployment, they often result in sparsely populated or remote areas being built out much later than urban and suburban markets, or not being covered at all. Because tribal lands are disproportionately in such remote areas, this trend has left many individuals on tribal lands without access to such service. As an incentive for carriers to address this problem, one possible approach would be to relax our general buildout requirements for licensees who focus their early buildout efforts on tribal lands and other unserved areas. For example, for services subject to a specific population/geographic coverage requirement, we could determine that the population or land area of a tribal land or other unserved area is subject to a multiplier (*e.g.*, five or 10 times actual population or actual land area) for purposes of meeting the requirement. For services subject to a substantial service requirement, we could determine that the provision of service to a tribal land qualifies as

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function of antenna height for base stations utilizing antenna heights above 300 meters (1000 feet) above average terrain.

<sup>57</sup> For example, maritime public fixed stations begin providing service within one year. 47 C.F.R. § 80.49(b).

<sup>58</sup> For example, 30 MHz PCS licensees must make service available to one-third of the population in their licensed area within five years and two-thirds of the population in their licensed areas within ten years. 47 CFR § 24.203.

<sup>59</sup> For example, LMDS carriers must offer substantial service within 10 years. 47 C.F.R. § 101.1011(a). Substantial service is defined as “service which is sound, favorable and substantially above a level of mediocre service which might just minimally warrant renewal.” *Id.*

“substantial service” for purposes of meeting the requirement. We seek comment on these alternatives. We also encourage parties to suggest other modifications of our buildout rules that would encourage prompt delivery of service to tribal lands and other unserved areas.

### 3. Right to Extend into Tribal Lands in Adjacent Licensing Areas

25. In some instances, particularly in the Southwest, tribal lands extend into more than one licensing area, so that one licensee cannot provide service to the entire tribal land without extending its coverage into an adjacent licensing area, even if the adjacent licensee has not extended coverage to the portion of the tribal land within its licensing area. To address these situations, we seek comment on whether wireless licensees should be allowed to expand their coverage into adjacent licensing areas in order to provide full coverage to a tribal land, provided that such coverage does not cause interference to the adjacent licensee’s actual operations.

26. For example, our geographic licensing rules for Specialized Mobile Radio (SMR) and Broadband PCS do not require 100 percent coverage of the licensee’s market area or population.<sup>60</sup> Thus, a licensee may not be required to provide coverage to a tribal land within its licensing area in order to meet its coverage requirements. If the licensee is not providing such service, we seek comment on whether we should allow a licensee in an adjacent area to extend coverage of its system into the tribal land, and to acquire primary licensee status in that area by doing so. Presumably, we would require the licensee that seeks to extend its coverage to construct and commence operations in the tribal land within a specified time frame, *e.g.*, two years, in order to establish primary status. We would also require procedural safeguards to ensure that the adjacent licensee had prior notice of the extension and that its system is protected from interference. We seek comment on this approach. We also seek comment on how long licensees should have to provide service to tribal lands within their own licensing areas before adjacent licensees would have the option to extend their coverage into those areas. In particular, we seek comment on how allowing one licensee to extend into another’s territory would affect rights acquired at auction. Because licensees typically bid at auction for the exclusive right to serve their licensing areas, we seek comment on how to fairly balance the auction winner’s interests against the possibility that a tribal area could receive service from an adjacent licensee.

27. We also seek comment on the applicability of this approach to services other than SMR and PCS. For example, under our cellular rules, areas in a cellular market not covered by the initial cellular carrier’s cellular geographic service area (CGSA) after five years are available for licensing as unserved areas.<sup>61</sup> However, during the initial five-year buildout period, cellular licensees may construct systems that extend into an adjacent cellular market only under limited circumstances, and such extensions require the consent of the adjacent licensee unless they are *de minimus*.<sup>62</sup> Although most cellular markets are now subject to the unserved area licensing rules, we seek comment on whether we should allow cellular licensees to extend service into tribal lands in adjacent markets where the five-year period has not yet elapsed. Under this

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<sup>60</sup> See 47 C.F.R. §§ 24.203(a), 90.665(c), 90.685(b).

<sup>61</sup> See 47 C.F.R. § 22.949.

<sup>62</sup> See 47 CFR § 22.912.

approach, no consent would be required from the adjacent market licensee unless the tribal land service area boundary extension overlapped that licensee's CGSA.

#### 4. Expansion of Permissible Service Definitions

28. In some private wireless services, our rules preclude use of the spectrum for provision of commercial service, including provision of basic telephony to the public. Some of these services are dedicated to private, internal use by businesses or limited classes of eligible users, while others are intended for government or public safety use. These service categories include both fixed services, *e.g.*, private point-to-point microwave, and private land mobile radio (PLMR) services.

29. We seek comment on whether the prospects for extending wireless telephony to tribal lands and other unserved areas would be enhanced by relaxing restrictions on commercial use of spectrum in tribal lands and other unserved areas by some categories of private radio licensees. Spectrum used for some private radio services is less congested outside metropolitan areas, thus making these services viable options in our efforts to extend wireless communications to tribal lands and other unserved areas. Wireless telephony systems should, however, possess certain characteristics to serve as a source of reliable communications. Specifically, these systems should: (a) handle voice type emissions; (b) have authority for two-way communications; (c) have the capacity for multiple channels; (d) designate one person to take responsibility for the system; and (e) not have end-users that are licensees. We seek comment on what private radio services potentially meet these parameters.

30. In some services, the permissible use and eligibility requirements of private radio licensees are already very liberal and such systems may be readily used to facilitate commercial wireless operations. For instance, under Part 101, private operational-fixed microwave licensees may use their systems only for communications related to industrial, commercial, and safety operations, but it is relatively simple for a private carrier to convert its operations to common carrier communications.<sup>63</sup> Many of these systems involve point-to-point applications that are set up in configurations connecting specific locations where using standard wireline or fiber optic applications is impractical. Thus, if economically feasible, such systems could provide necessary links to connect tribal lands and other unserved areas to the telephone network. We seek comment on the current use and any future use of private operational-fixed microwave systems that would improve the delivery of wireless telephony service to these areas.

31. We also seek comment on the degree to which PLMR services could be used to make mobile telephony or similar communications services available to individuals living on tribal lands and other unserved areas. For example, the industrial/business pool provides communications services for entities engaged in commercial activities, clergy activities, operating educational, philanthropic, or ecclesiastical institutions, hospitals and clinics.<sup>64</sup> Most of these systems are used for private mobile services, however, some are interconnected to the public switched telephone network enabling them to provide CMRS, such as SMR systems.

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<sup>63</sup> See 47 C.F.R. Part 101.

<sup>64</sup> See 47 C.F.R. Part 90, Subpart C.

32. PLMR service systems located below the 800 MHz band offer excellent propagation for power, and are relatively immune to weather interference and terrain inconsistencies. Additionally, the service would be relatively inexpensive to administer and hardware is widely available. In many cases, PLMR service systems are already in operation on reservations in the form of public safety radio (tribal police) or industrial radio (railroad, petroleum, and transportation systems) and hardware can be added to expand these systems. Despite these characteristics, however, the voice quality of these services is typically not the caliber of that provided by standard wireline telephone equipment.

33. While we seek comment on the possibility of allowing licensees in some private services to provide commercial service in tribal lands and other unserved areas, we are also mindful of the potential need to retain permissible use limitations on certain services. For example, public safety services utilize communications to support and protect the safety of life, health or property on a non-commercial basis. Congress has acknowledged the critical functions that this public safety spectrum supports and has committed to ensure that public safety spectrum users are sufficiently accommodated.<sup>65</sup> Likewise, the Commission has taken significant steps to ensure the availability and reliability of public safety spectrum.<sup>66</sup> Therefore, while we are open to comment on whether there are options regarding the use of public safety spectrum for commercial purposes in tribal lands and other unserved areas, we emphasize that we will not contemplate any alternative use of public safety spectrum that would compromise our public safety objectives and obligations.

34. We also request comment on whether the definition of service should be expanded to include data messaging services. For example, we may find that data messaging services, like e-mail, offered through terrestrial wireless and satellite technologies may provide valuable communication services for both emergency and basic communication needs.

## 5. Modification of Designated Entity Transfer Restrictions

35. The Commission has in place rules for the broadband PCS C and F blocks that prohibit “designated entities” (DEs) (entrepreneurs and small businesses) from transferring spectrum to non-DEs during the first five years of the license term.<sup>67</sup> In other services, DE licensees who receive a benefit in the auction, such as a bidding credit, must pay the credit (or a portion thereof) back to the Commission if they transfer or assign their license to a non-DE that would qualify for the bidding credit.<sup>68</sup> While this rule was created to prevent trafficking of

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<sup>65</sup> For instance, in 1997, Congress designated 24 MHz of spectrum specifically for public safety use. *See* 47 U.S.C. § 337 (1999).

<sup>66</sup> *See, e.g.*, In the Matter of the Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communications Requirements Through 2010, Establishment of Rules and Requirements for Priority Access Service, *First Report and Order*, 14 FCC Rcd 12 (1998); In the Matter of Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignments Policies of the Private Land Mobile Services, *Second Report and Order*, 12 FCC Rcd 14307.

<sup>67</sup> *See* 47 C.F.R. § 24.839.

<sup>68</sup> *See* 47 C.F.R. § 1.2111(d).

licenses from DEs to non-DEs,<sup>69</sup> it is likely that non-DEs will have more of the resources necessary to build out on tribal lands and other unserved areas, particularly in more remote areas.

36. Therefore, we seek comment on whether we should allow DE-to-non-DE transfers (or partnerships and similar arrangements between DEs and non-DEs) in instances where the non-DE transferee or assignee commits to provide service to tribal lands and other unserved areas (*e.g.*, evidenced by an agreement with the tribal governing body). Under this approach, such transactions would not be subject to holding requirements, repayment of bidding credits, or other unjust enrichment measures, provided that the non-DE fulfilled its commitment to provide service to the tribal land or other unserved areas. We seek comment on what criteria should be used to determine whether the non-DE had provided sufficient service. We also seek comment on whether DE-to-non-DE transfers should be limited to partitioning the portion of the DE licensee's service area that covers the tribal land or other unserved area, or whether DEs should be able to transfer the entire license to a non-DE without restrictions conditioned on the provision of service to the tribal land or other unserved area. In the latter case, one alternative would be to reduce the unjust enrichment payment on a pro rated basis to reflect the portion of the licensing area or population that is encompassed by the tribal land or unserved areas. We seek comment on these alternatives.

## 6. Satellite Policies for Existing Satellite Licensees

37. The Commission has granted several licenses for satellite services that are or can potentially be used to deliver emergency, basic, and advanced telecommunication services to tribal lands. In 1998, the Commission granted several licenses authorizing the world's first Little Low Earth Orbit (Little LEOs) satellite systems, which are capable of providing non-voice, data messaging services (*e.g.*, paging, e-mail, remote meter reading).<sup>70</sup> Between 1995 and 1997, the Commission granted four licenses authorizing the world's first Big Low Earth Orbit (Big LEOs) satellite systems, which provide a variety of mobile voice and data communication services.<sup>71</sup> Both Big LEO and Little LEO services are capable of providing telecommunication services by satellite to tribal lands and other unserved areas that have not been linked to the telecommunications infrastructure.

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<sup>69</sup> See 47 U.S.C. § 309(j)(4)(E).

<sup>70</sup> These licensees are Orbital Communications Corp., Volunteers in Technical Assistance Inc., Final Analysis Communications, E-SAT Inc., and LEO One USA Corp. See Orbital Communications Corporation, *Order and Authorization*, 13 FCC Rcd 10828 (Int. Bur. 1998); Volunteers in Technical Assistance, *Order and Authorization*, 13 FCC Rcd 10845 (Int. Bur. 1998); Final Analysis Communications Services, Inc., *Order and Authorization*, 13 FCC Rcd 6618 (Int. Bur. 1998); E-SAT, Inc., *Order and Authorization*, 13 FCC Rcd 10859 (Int. Bur. 1998). Orbcomm today offers service via a 28 satellite constellation system.

<sup>71</sup> These licensees are MCHI, Constellation, Iridium, and Globalstar. See Mobile Communications Holdings, Inc., *Order and Authorization*, 12 FCC Rcd 9663 (Int. Bur. and Office Of Eng. Tech. 1997) (MCHI); Constellation Communications, Inc., *Order and Authorization*, 12 FCC Rcd 9651 (Int. Bur. and Office of Eng. Tech. 1997) (Constellation); Motorola Satellite Communications, Inc., *Order and Authorization*, 10 FCC Rcd 2268 (Int. Bur. 1995) (Iridium); Loral/Qualcomm Partnership, L.P., *Order and Authorization*, 10 FCC Rcd 2333 (Int. Bur. 1995) (Globalstar).

38. In 1997, the Commission licensed 14 satellite systems at the Ka-band.<sup>72</sup> These systems are expected to provide super high-speed data and Internet services throughout America. The Commission also issued a license in 1989 to AMSC to construct, launch, and operate a mobile satellite system to provide a variety of domestic voice and data mobile satellite services. As discussed in Section II above, AMSC has provided dispatch services to a police force in the Navajo Nation.

39. We seek comment on the effectiveness of satellite technologies as a means of deploying communications services to tribal lands and other unserved areas. We seek comment on any satellite policies that we can adopt, or regulations that we should eliminate or streamline, to promote the deployment of satellite services in tribal lands and other unserved areas. For example, given that VSAT technology may represent a promising solution for the provision of low-cost telephony to individuals living on tribal lands and in other unserved areas, we ask for comment on any regulatory barriers that currently deter the implementation of VSAT networks in the United States, and what type of policy incentives can be enacted to further the development of VSAT networks for deployment on tribal lands and other unserved areas. For example, Titan Wireless, a VSAT provider in the Asia-Pacific region, identifies problems with respect to interconnection with the PSTN, coordination of space segment frequency and expeditious licensing of earth stations, and availability of extended C-band frequencies to make it easier for VSAT operators to provide service in these unserved areas.<sup>73</sup> We seek comment on whether, and to what degree, these specific concerns may hinder the growth of VSAT services or other satellite technologies in tribal lands as well as any other problem areas. Finally, we seek comment on what policies the Commission can adopt to address these specific concerns.

## **7. Conditioning the Grant of Additional Flexibility on the Existence of a Binding Agreement between the Licensee and the Affected Tribe**

40. As discussed in Sections III.A.1 through III.A.6 above, we believe it is important to explore whether we should look more favorably upon requests filed by licensees seeking additional flexibility if granting the request would create incentives for the extension of wireless or satellite service to tribal lands or other unserved areas. We believe it is important, however, to ensure that wireless carriers actually provide service to tribal lands or other unserved areas in exchange for such flexibility. We therefore seek comment on whether the grant of additional flexibility to wireless or satellite licensees in response to a request should be conditioned on the existence of a binding agreement between the licensee and relevant tribal authority in the case of tribal lands, or a binding agreement between the licensee and another authority in the case of other unserved areas.

41. As discussed in Section I above and in the *Universal Service Further Notice*,<sup>74</sup> the federal government has a special relationship with Indian tribes, as set forth in the Constitution

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<sup>72</sup> For a description of these licenses, see Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, *Third Report and Order*, 12 FCC Rcd 22310, 22316, at para. 13 (1997).

<sup>73</sup> Comments of Titan Wireless on the 2 GHz Notice, IB Docket No. 99-81, dated July 21, 1999.

<sup>74</sup> See *Universal Service Further Notice* at Section III.A.

of the United States, treaties, statutes, Executive Orders and court decisions. The United States recognizes the unique sovereign status of Indian tribes, the special trust relationship between the federal government and Indian tribes, and the federal obligation to guarantee the right of Indian tribes to self-government. With respect to wireless telecommunications, tribal authorities have the right to control the placement of wireless facilities on tribal lands.<sup>75</sup> Thus, as a practical matter, wireless carriers are unlikely to be able to provide service to tribal lands without obtaining the consent of tribal authorities to operate on reservation lands.

42. Consistent with these principles, we believe licensees that seek additional flexibility pursuant to a request in order to provide service to tribal lands should be able to demonstrate that they have the intent and the ability to provide such service, including the existence of any consent, contract, or other agreement with the tribal authority that is necessary to do so. To ensure that licensees meet this standard, we seek comment on whether licensees should be required to certify to or provide evidence of a binding agreement between the licensee and relevant tribal authority that will allow the provision of service in the tribal land. Moreover, in the case of service to unserved areas other than tribal lands, we seek comment on whether licensees should be required to certify to or provide evidence of a binding agreement between the licensee and a relevant authority that will allow the provision of service in the unserved area and, if so, who that relevant authority should be. We also seek comment on whether the grant of flexibility in response to a request should be conditioned on compliance with such agreements. Commenters should address whether such a requirement would impose significant additional burdens on licensees seeking to provide service to tribal lands or other unserved areas, and how such a requirement, if adopted, should be implemented. For example, if the right of a licensee to obtain additional flexibility or forbearance is conditioned upon the consent of a tribal or other authority, what recourse would a licensee have if the authority withdraws consent? In addition, should applications for Commission approval of transfers and assignments that affect service provided pursuant to a licensee agreement also require evidence of the consent of tribal or other authorities?

## **B. Licensing of New Terrestrial Wireless and Satellite Entrants to Provide Service on Tribal Lands**

### **1. Unallocated or Unlicensed Spectrum Bands That Could Serve the Needs of Individuals Living on Tribal Lands**

43. We seek comment on whether there are frequency bands that are not currently allocated for telecommunications service that could potentially be used to provide basic telephone service on tribal lands and other unserved areas. We also seek comment on whether there are frequency bands that are allocated for telecommunications service but not assigned to any licensee that could potentially be used to provide basic telephone service on tribal lands and other unserved areas. For example, there has been significant recent expansion in the provision of telephone service to remote areas throughout the world by means of WLL and other fixed wireless technologies. The demand for WLL, combined with advances in technology, has

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<sup>75</sup> *AB Fillins Petition for Declaratory Ruling*, 12 FCC Rcd at 11759.

brought the per-line cost of fixed wireless equipment down significantly.<sup>76</sup> In other parts of the world, WLL is provided by cordless technologies such as Digital Enhanced Cordless Telephone (DECT) and Personal Handyphone System (PHS), as well as mobile technologies such as GSM, TDMA, and CDMA. We seek comment on whether there are unlicensed or unallocated bands on which these or similar technologies could be used to facilitate efforts to provide low-cost service in unserved communities such as tribal lands.

## 2. Licensing in Spectrum Bands Allocated to Other Services

44. In addition to unallocated or unlicensed spectrum, we seek comment on whether there are unused channels in otherwise allocated and licensed spectrum that may be available to provide telephone service to tribal lands and other unserved areas. Because of the remote location of many tribal lands and other unserved areas, such spectrum could be available even if it is licensed for other purposes in major markets and other higher-density areas.

45. To the extent that unused channels are available in tribal lands and other unserved areas, a potential alternative to facilitate service would be to allow Indian tribes or parties with tribal consent to apply for “drop-in” licenses in the relevant spectrum that would enable them to provide coverage to the tribal land. We seek comment on the feasibility of this approach, and on whether there are conditions under which drop-in licensees could obtain primary status in the tribal land (and thus be entitled to rights of non-interference). For example, could a drop-in license initially be granted on a secondary basis with the right to convert to a primary license if construction and commencement of service in a tribal land occurs within a specified time period and if service does not cause interference for existing licensees in adjacent geographic areas or on adjacent frequencies? How long should that time period be? If drop-in licensees are not given the opportunity to convert to primary licensee status at a future date, are there still adequate incentives for carriers to become “drop-in” licensees?

46. We also seek comment on whether existing licensees in adjacent geographic areas or on adjacent frequencies should have the ability to match the proposal of the drop-in applicant before the decision to grant the drop-in license is made. If the Commission receives matching proposals, how should the Commission resolve the issue of mutual exclusivity? For example, should the Commission use auctions to resolve this issue? In addition, if tribal consent is required for approval of a drop-in application,<sup>77</sup> should the tribal entities be required to give existing licensees the right of first refusal before entering into an agreement with a third party drop-in applicant?

## 3. Drawing Geographic Boundaries for Spectrum Licenses That Recognize the Service Needs of Individuals Living on Tribal Lands

47. In determining what type of geographic area license is most appropriate for particular wireless services, we have considered such factors as the nature of the service (*e.g.*, technological constraints), the presence of natural markets, cost of build-out, and the range of

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<sup>76</sup> See Wireless Local Loop Tutorial, <http://www.webproforum.com/wll>, and “WLL Cuts the Wire,” Global Telephony, <http://www.internettelephony.com/archive/globalgt598/gt598cover.html>.

<sup>77</sup> See section III.A.7 *supra*.

services that can be offered in the most rapid and efficient manner.<sup>78</sup> This has led to a variety of different license areas being used (*e.g.*, Basic Trading Areas (BTAs), Major Trading Areas (MTAs), Metropolitan Statistical Areas (MSAs), Economic Areas (EAs)). In some instances, these licensing areas do not match well with the distribution of tribal lands throughout the country, and some of the larger tribal lands in the American Southwest overlap more than one licensing area.

48. To avoid this issue in establishing licensing rules for future services, we believe it is important to consider the presence and distribution of tribal lands as a factor when establishing the appropriate license area definitions. All else being equal, we consider it preferable to draw geographic boundaries for spectrum licenses that will not splinter natural groupings of tribal lands and that will promote service to entire reservations. We seek comment on how best to accomplish this. Are there particular licensing area definitions that we have used in the past that are more or less compatible with these goals? In the case of the larger Southwestern tribal lands, should we consider developing licensing areas that are specifically tailored to tribal land boundaries? To what extent is it economically beneficial to combine tribal land and non-tribal land communities within licensing areas? In the Southwest, where there are several large tribal lands, nearly every licensing scheme splinters a reservation. We seek comment on whether we should carve out special licensing areas for tribal lands.

#### **4. Technical/Operational Rules for New Services**

49. We seek comment generally on how our technical and operational rules for new services should be structured to ensure that they encourage rather than discourage licensees to provide service in sparsely populated areas such as tribal lands. In general, the technical and operational rules that we have adopted for recently-established wireless services (Parts 24, 26, and 27) allow licensees wide latitude in determining how to utilize their assigned spectrum, and impose only minimal technical and operational requirements. Nevertheless, we seek comment on how to ensure that our technical and operational rules are not unduly oriented to the provision of telecommunications services in densely populated areas as opposed to areas where tribal lands and other unserved areas are located. For example, to the extent that technical rules are designed to produce efficient spectrum usage by encouraging licensees to employ a cellular architecture with extensive frequency reuse, these limits may also prevent wide area coverage with fewer towers in less populated areas.

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<sup>78</sup> See, *e.g.*, Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service ("WCS"), GN Docket No. 96-228, *Report and Order*, 12 FCC Rcd 10785 at ¶¶ 53-58 (1997); Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, CC Docket No. 92-297, *Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rulemaking*, 12 FCC Rcd 12545 at ¶¶ 132-139 (1997); Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, PR Docket No. 89-552, *Third Report and Order and Fifth Notice of Proposed Rulemaking*, 12 FCC Rcd 10943 at ¶ 80 (1997).

## 5. Auction Bidding Credits for Provision of Service on Tribal Lands

50. The Commission has instituted the use of bidding credits as a means to ensure that DEs have the opportunity to participate successfully in spectrum auctions.<sup>79</sup> Our Part 1 rules contain a schedule of bidding credits that are associated with different definitions of “small business.”<sup>80</sup> Bidding credits allow smaller entities to obtain a discount on their final high bid amount, and as a result numerous small businesses have won licenses in a variety of auctions.

51. Although our use of bidding credits has previously been limited to small businesses that meet our DE eligibility criteria, bidding credits could also potentially be tied to the deployment of service to tribal lands and other unserved areas as incentive for auction winners to invest in such service. We therefore seek comment on the possibility of awarding a bidding credit to bidders (whether DEs or non-DEs) who indicate that they intend to provide service to tribal lands and other unserved areas located within markets for which they are the winning bidder. We also seek comment on the appropriate credit amount, which would presumably be cumulative with any small business bidding credits if the bidder met the small business qualifications as well. For example, the bidding credit could be based on the pro-rata share of the unserved area population as compared to the population of the entire service area (*e.g.*, if the population of the unserved area is 20 percent of the total service area population, the bidding credit would be 20 percent). Alternatively, the credit could be a flat percentage of the bid amount, or it could be commensurate with the property/plant/equipment costs for the reservation.

52. Regardless of the credit amount, we believe that any bidding credit that is tied to providing service in a tribal land or other unserved area should require a binding commitment by the winning bidder to spend the credit amount on property, plant, and equipment for the tribal land or unserved area, or otherwise to ensure that service is provided. Although eligibility for bidding credits is normally determined at the short form stage, we seek comment on whether a bidding credit conditioned on future investment in a tribal land or unserved area should be applied for and awarded at the long form stage, when the winning bidder has identified the markets for which it will receive licenses. We also seek comment on whether winning bidders should be required to submit proof of a tribal agreement and/or proof of financial and technical arrangements as a condition for obtaining the credit.

53. We also seek comment on what steps should be taken to ensure that the licensee has met the conditions that attach to the bidding credit. We ask whether requiring the licensee to certify that it is in compliance is a sufficient enforcement mechanism. Finally, we seek comment on the consequences to the licensee if it fails to satisfy the required conditions. Presumably, if a winning bidder fails to provide service, or at least to make the required expenditures, within a specified period, the credit would have to be repaid, with interest, and could also be subject to unjust enrichment payments by the licensee. This approach is analogous to the unjust

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<sup>79</sup> Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, *Second Report and Order*, 9 FCC Rcd 2348 at ¶ 242 (1994).

<sup>80</sup> 47 C.F.R. § 1.1110(e).

enrichment rules we have promulgated for various services in the past and have made a part of Part 1 of the Commission's rules.<sup>81</sup>

## 6. Satellite Licensing Policies

54. We seek comment on how we can use our licensing authority to encourage the provision of satellite-based telecommunication services to tribal lands and other unserved areas. Thus, we request comment on any licensing incentives or other policies that the Commission could adopt to promote the deployment of cost-effective satellite service for use in tribal lands and other unserved areas. For example, in future spectrum assignments, should the Commission assign more spectrum within a particular band to companies that commit to serving tribal lands and other unserved areas? Are there other specific licensing mechanisms the Commission could implement to promote service to tribal lands and other unserved areas?

55. In the pending 2 GHz proceeding, we sought comment on incentives and policies to encourage deployment of 2 GHz mobile satellite services (MSS) to unserved, rural, insular or economically isolated areas, including tribal lands.<sup>82</sup> For example, we sought comment on whether one criterion for resolution of expansion band coordination disputes should be whether a licensee is providing service to unserved areas,<sup>83</sup> or whether licensees should be granted extension of system implementation milestones if they provide service to unserved communities.<sup>84</sup> Every party commenting on the provision of 2 GHz MSS in these areas states that its satellite technology represents an excellent means for providing basic and advanced telecommunications services to unserved areas, including tribal lands.<sup>85</sup> The majority of commenters, however, generally oppose adopting regulatory incentives for providing service to unserved areas.<sup>86</sup> Many commenters believe that the Commission's geographic coverage requirements and multiple licensing schemes already create market-based incentives for providing service to unserved and rural areas.<sup>87</sup> By contrast, Celsat urges the Commission to adopt its proposed incentives for service to unserved areas, including tribal lands<sup>88</sup> and claims

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<sup>81</sup> See 47 C.F.R. § 1.2111(d). The amount that must be paid back decreases over time.

<sup>82</sup> See 2 GHz Notice, 14 FCC Rcd at 4886.

<sup>83</sup> See 2 GHz Notice, 14 FCC Rcd at 4858-61.

<sup>84</sup> See 2 GHz Notice, 14 FCC Rcd at 4881-83.

<sup>85</sup> See, e.g., Celsat Comments on the 2 GHz Notice at 1 (June 24, 1999) (Celsat Comments); ICO Comments on the 2 GHz Notice at 19-21 (June 24, 1999) (ICO Comments).

<sup>86</sup> See, e.g., Constellation Comments on the 2 GHz Notice at 27-28 (June 24, 1999) (Constellation Comments); Globalstar Comments on the 2 GHz Notice at 44-46 (June 24, 1999) (Globalstar Comments).

<sup>87</sup> Constellation Comments at 27-28; Globalstar Comments at 44-46; ICO Comments at 19-21; ICO USA Service Group Comments on the 2 GHz Notice at 44-46 (June 24, 1999) (ICO USA Service Group Comments); Iridium Comments on the 2 GHz Notice at 41-43 (June 24, 1999) (Iridium Comments); Boeing Reply Comments on the 2 GHz Notice at 24-25 (July 26, 1999); ICO Reply Comments on the 2 GHz Notice at 23-24 (July 26, 1999) (ICO Reply Comments); and ICO USA Service Group Reply Comments on the 2 GHz Notice at 41-42 (July 26, 1999) (ICO USA Service Group Reply Comments).

<sup>88</sup> Celsat Comments at 28-29; Celsat Reply Comments on the 2 GHz Notice at 18-22 (July 26, 1999) (Celsat Reply Comments).

that it will be able to provide service to these communities for as little as eight cents per minute, including long distance.<sup>89</sup>

56. We seek further comment on whether, and if so, how and to what degree the Commission's geographic coverage requirements and multiple licensing scheme already create market-based incentives for providing service to unserved communities, including tribal lands. Will these suggested incentives, by themselves, help assure that tribal lands or unserved areas can gain access to satellite services? For example, while the footprint of a satellite operator may indeed cover a tribal land or unserved area, how does this fact address the potential economic barrier of individuals living on tribal lands not being able to afford the service without any special discounts or subsidies? Some commenters further argue that it is more appropriate to gear any incentives toward earth station or handset licensees which, as CMRS operators, must offer their service on a non-discriminatory common-carrier basis.<sup>90</sup> One commenter argues that such incentives would penalize space segment operators for marketing decisions of CMRS operators over which it has no control,<sup>91</sup> while another counters that satellite system operators decide the price of service before designing their systems.<sup>92</sup> We seek further comment on these assertions. We ask for comment on what policies or incentives could most effectively encourage both satellite operators and earth station and handset licensees to serve and deliver affordable service to tribal lands and other unserved areas.

57. We seek further comment on whether any proposed policies or incentives would have any effects on spectrum efficiency, competition, or other licensing considerations. For example, in the 2 GHz MSS proceeding, several commenters claim that a policy regarding access to expansion spectrum could result in inefficient use of the spectrum or distort market conditions.<sup>93</sup>

58. The International Bureau recently initiated an effort to streamline the licensing of satellite earth stations.<sup>94</sup> In the future, the International Bureau expects to recommend a rulemaking that will propose comprehensive rule changes that will further streamline the earth station licensing process. We encourage parties in this proceeding to monitor that process, and comment on any earth station rule changes that might encourage the deployment of telecommunication services to tribal lands and other unserved areas.

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<sup>89</sup> Celsat Comments at 28-29.

<sup>90</sup> ICO Comments at 19-21; ICO USA Service Group Comments at 44-46; Iridium Comments at 41-43; ICO Reply Comments at 23-24; and ICO USA Service Group Reply Comments at 41-42.

<sup>91</sup> ICO Comments at 19-21.

<sup>92</sup> Celsat Reply Comments at 18-22.

<sup>93</sup> *See, e.g.*, ICO Comments at 19-21.

<sup>94</sup> Commission Launches Earth Station Streamlining Initiative, *Public Notice*, DA 99-1259 (rel. June 25, 1999).

#### IV. PROCEDURAL MATTERS

##### A. *Ex Parte* Rules -- Permit-But-Disclose Proceeding

59. This proceeding is a permit-but-disclose notice and comment rulemaking proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in Commission rules. *See generally* 47 C.F.R. §§ 1.1202, 1.1203, and 1.1206.

##### B. Initial Regulatory Flexibility Analysis

60. As required by the Regulatory Flexibility Act, *see* 5 U.S.C. § 603, the Commission has prepared an Initial Regulatory Flexibility Analysis ("IRFA") of the possible impact on small entities of the proposals suggested in this Notice. The IRFA is set forth in the Appendix. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments on the Notice, as set forth in Section IV.D *infra*, and they must have a separate and distinct heading designating them as responses to the IRFA. The Commission's Office of Public Affairs, Reference Operations Division, will send a copy of this Notice, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the Regulatory Flexibility Act, *see* 5 U.S.C. § 603(a).

##### C. Initial Paperwork Reduction Act of 1995 Analysis

61. This Notice contains neither a new nor a modified information collection.

##### D. Comment Dates

62. Pursuant to Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on or before the date that is 60 days after publication of this Notice in the Federal Register, and reply comments on or before the date that is 90 days after publication of this Notice in the Federal Register. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies. *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24121 (1998).

63. Comments filed through the ECFS can be sent as an electronic file via the Internet to <<http://www.fcc.gov/e-file/ecfs.html>>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to [ecfs@fcc.gov](mailto:ecfs@fcc.gov), and should include the following words in the body of the message, "get form <your e-mail address>." A sample form and directions will be sent in reply.

64. Parties who choose to file by paper must file an original and four copies of each filing. If participants would like each Commissioner to receive a personal copy of their

comments, an original plus nine copies must be filed. If more than one docket or rulemaking number appears in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number. All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, The Portals, 445 Twelfth Street, S.W., Room TW-A325, Washington, D.C. 20554.

65. All relevant and timely comments will be considered by the Commission before final action is taken in this proceeding. Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Center, The Portals, 445 Twelfth Street, S.W., Room CY-A257, Washington, D.C. 20554.

## **V. ORDERING CLAUSES**

66. Accordingly, IT IS ORDERED THAT, pursuant to Sections 4(i), 303(r), and 309(j) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), and 309(j), this Notice of Proposed Rulemaking is hereby ADOPTED.

67. IT IS FURTHER ORDERED that the Office of Public Affairs, Reference Operations Division, SHALL SEND a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas  
Secretary

## APPENDIX

## INITIAL REGULATORY FLEXIBILITY ANALYSIS

1. As required by the Regulatory Flexibility Act (RFA),<sup>1</sup> the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules proposed in this Notice of Proposed Rulemaking. Written public comments are requested on this IRFA. These comments must be filed in accordance with the same filing deadlines for comments on the rest of this Notice of Proposed Rulemaking, as set forth in Section IV.D above, and they must have a separate and distinct heading designating them as responses to the IRFA. The Commission's Office of Public Affairs, Reference Operations Division, will send a copy of this Notice of Proposed Rulemaking, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the RFA.<sup>2</sup> In addition, this Notice of Proposed Rulemaking, including the IRFA (or summaries thereof), will be published in the Federal Register.<sup>3</sup>

**I. Need for and Objectives of the Proposed Rules**

2. We are issuing this Notice of Proposed Rulemaking to seek comment on potential terrestrial wireless and satellite policy initiatives to address the telecommunications needs of consumers living on tribal lands. As stated above, the Telecommunications Act of 1996 instructed the Commission to help ensure that all Americans have access to affordable telecommunications services. Consistent with that mandate, we seek to secure for consumers living on tribal lands the same opportunities to take advantage of telecommunications capabilities that other Americans have. In addition, we seek comment on whether to extend these initiatives to consumers in other unserved areas.

3. Specifically, this Notice of Proposed Rulemaking seeks comment on the following potential initiatives for encouraging existing wireless licensees to provide telecommunications service to tribal lands and other unserved areas: (1) relaxing antenna height and transmitter power limitations applicable to service providers in tribal lands and other unserved areas; (2) establishing flexible buildout requirements for carriers providing telephone service to tribal lands and other unserved areas; (3) permitting licensees to expand coverage into adjacent licensing areas in order to provide full coverage to tribal lands and other unserved areas; (4) allowing licensees in certain private (non-CMRS) services to provide basic telephone service to tribal lands and other unserved areas; (5) lifting restrictions on transfer of wireless licenses awarded to designated entities (DEs) for carriers providing service to tribal lands and other unserved areas; (6) modifying regulations to promote the deployment of satellite technology to tribal lands and other unserved areas; and (7) granting of additional flexibility to carriers providing service to tribal lands and other unserved areas based on the existence of a binding agreement between the carrier and the affected tribe.

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<sup>1</sup> See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

<sup>2</sup> See 5 U.S.C. § 603(a).

<sup>3</sup> See *id.*

4. In addition, this Notice of Proposed Rulemaking seeks comment on the following ways to encourage service to tribal lands/unserved areas in the Commission's development and licensing of new services: (1) identifying frequency bands that are not currently allocated for telecommunications service that could potentially be used to provide basic telephone service on tribal lands/unserved areas; (2) allowing "drop-in" licensing of unassigned or unused channels in otherwise allocated and licensed spectrum to provide service to tribal lands/unserved areas; (3) establishing licensing area boundaries for new services that will not splinter tribal lands among multiple licensees; (4) adopting technical and operational rules that encourage development of low-cost technology in new services suitable for providing service in sparsely populated areas such as tribal lands; (5) in future auctions, awarding bidding credits to auction winners (regardless of designated entity status) who commit to provide service to tribal lands/unserved areas in their markets; and (6) using our licensing authority to encourage the provision of satellite-based telecommunication services to tribal lands and other unserved areas.

## II. Legal Basis

5. The potential actions on which comment is sought in this Notice of Proposed Rulemaking would be authorized under sections 4(i), 303(r), and 309(j) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), and 309(j).

## III. Description and Estimate of the Number of Small Entities to which the Proposed Rules Will Apply

6. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.<sup>4</sup> The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."<sup>5</sup> In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.<sup>6</sup> A small business concern is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).<sup>7</sup> A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."<sup>8</sup> Nationwide, as of 1992, there were approximately 275,801 small organizations.<sup>9</sup> And

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<sup>4</sup> 5 U.S.C. § 603(b)(3).

<sup>5</sup> *Id.* at § 601(6).

<sup>6</sup> 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. § 601(3).

<sup>7</sup> Small Business Act, 15 U.S.C. § 632.

<sup>8</sup> 5 U.S.C. § 601(4).

<sup>9</sup> 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

finally, "Small governmental jurisdiction" generally means "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000."<sup>10</sup> As of 1992, there were approximately 85,006 such jurisdictions in the United States.<sup>11</sup> This number includes 38,978 counties, cities, and towns; of these, 37,566, or 96 percent, have populations of fewer than 50,000.<sup>12</sup> The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that 81,600 (91 percent) are small entities.

7. Below, we further describe and estimate the number of small business concerns that may be affected by the proposed rules, if adopted, including wireless and satellite service providers. To assist the Commission in analyzing the total number of potentially affected small entities, commenters are requested to provide estimates of the number of small entities that may be affected by any rule changes resulting from this Notice of Proposed Rulemaking.

#### **A. Wireless (Radiotelephone) Providers**

8. SBA has developed a definition of small entities for radiotelephone (wireless) companies. The Census Bureau reports that there were 1,176 such companies in operation for at least one year at the end of 1992.<sup>13</sup> According to SBA's definition, a small business radiotelephone company is one employing no more than 1,500 persons.<sup>14</sup> The Census Bureau also reported that 1,164 of those radiotelephone companies had fewer than 1,000 employees. Thus, even if all of the remaining 12 companies had more than 1,500 employees, there would still be 1,164 radiotelephone companies that might qualify as small entities if they are independently owned and operated. Although it seems certain that some of these carriers are not independently owned and operated, we are unable at this time to estimate with greater precision the number of radiotelephone carriers and service providers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 1,164 small entity radiotelephone companies that may be affected by the policies and rules proposed in this Notice of Proposed Rulemaking. We next attempt to refine further this estimate to correspond with the categories of wireless (radiotelephone) companies that are commonly used under our rules.

9. *Cellular, PCS, SMR and Other Mobile Service Providers.* In an effort to further refine our calculation of the number of radiotelephone companies that may be affected by the policies and rules proposed herein, if adopted, we consider the data that we collect annually in connection with the TRS for the subcategories Wireless Telephony (which includes Cellular, PCS, and SMR) and Other Mobile Service Providers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to these broad subcategories, so we will utilize the closest applicable definition under SBA rules -- which, for both categories, is

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<sup>10</sup> 5 U.S.C. § 601(5).

<sup>11</sup> U.S. Dept. of Commerce, Bureau of the Census, "1992 Census of Governments."

<sup>12</sup> *Id.*

<sup>13</sup> United States Department of Commerce, Bureau of the Census, *1992 Census of Transportation, Communications, and Utilities: Establishment and Firm Size*, at Firm Size 1-123 (1995) ("1992 Census").

<sup>14</sup> 13 C.F.R. § 121.201, SIC Code 4812.

for radiotelephone (wireless) companies.<sup>15</sup> To the extent that the Commission has adopted definitions for small entities providing PCS and SMR services, we discuss those definitions below. According to our most recent TRS data, 732 companies reported that they are engaged in the provision of Wireless Telephony services and 23 companies reported that they are engaged in the provision of Other Mobile Services.<sup>16</sup> Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of Wireless Telephony Providers and Other Mobile Service Providers, except as described below, that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 732 small entity Wireless Telephony Providers and fewer than 23 small entity Other Mobile Service Providers that might be affected by the policies and rules proposed in this Notice of Proposed Rulemaking.

10. *Broadband PCS Licensees.* The broadband PCS spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined "small entity" for Blocks C and F as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.<sup>17</sup> For Block F, an additional classification for "very small business" was added, and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.<sup>18</sup> These regulations defining "small entity" in the context of broadband PCS auctions have been approved by SBA.<sup>19</sup> No small businesses within the SBA-approved definition bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the Block C auctions. A total of 93 small and very small business bidders won approximately 40% of the 1,479 licenses for Blocks D, E, and F. However, licenses for Blocks C through F have not been awarded fully, therefore there are few, if any, small businesses currently providing PCS services. Based on this information, we estimate that the number of small broadband PCS licenses will include the 90 winning C Block bidders and the 93 qualifying bidders in the D, E, and F blocks, for a total of 183 small PCS providers as defined by SBA and the Commissioner's auction rules.

11. *SMR Licensees.* Pursuant to 47 C.F.R. § 90.814(b)(1), the Commission has defined "small entity" in auctions for geographic area 800 MHz and 900 MHz SMR licenses as a firm that had average annual gross revenues of less than \$15 million in the three previous calendar years. The definition of a "small entity" in the context of 800 MHz SMR has been

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<sup>15</sup> *Id.*

<sup>16</sup> FCC, *Carrier Locator: Interstate Service Providers*, Figure 1 (Jan. 1999) (*Carrier Locator*). See also 47 C.F.R. § 64.601 *et seq.* (TRS). The most reliable source of information regarding the numbers of commercial wireless entities appears to be data the Commission publishes annually in its *Carrier Locator* report, derived from filings made in connection with the Telecommunications Relay Service (TRS).

<sup>17</sup> See *Amendment of Parts 20 and 24 of the Commission's Rules -- Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap*, Report and Order, FCC 96-278, WT Docket No. 96-59, ¶¶ 57-60 (June 24, 1996), 61 FR 33859 (July 1, 1996); see also 47 C.F.R. § 24.720(b).

<sup>18</sup> *Id.*, at ¶ 60.

<sup>19</sup> *Implementation of Section 309(j) of the Communications Act -- Competitive Bidding*, PP Docket No. 93-253, Fifth Report and Order, 9 FCC Rcd 5532, 5581-84 (1994).

approved by the SBA,<sup>20</sup> and approval for the 900 MHz SMR definition has been sought. The proposed rules may apply to SMR providers in the 800 MHz and 900 MHz bands that either hold geographic area licenses or have obtained extended implementation authorizations. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of less than \$15 million. Consequently, we estimate, for purposes of this IRFA, that all of the extended implementation authorizations may be held by small entities, some of which may be affected by the policies and rules proposed in this Notice of Proposed Rulemaking.

12. The Commission recently held auctions for geographic area licenses in the 900 MHz SMR band. There were 60 winning bidders who qualified as small entities in the 900 MHz auction. Based on this information, we estimate that the number of geographic area SMR licensees that may be affected by the policies and rules proposed in this Notice of Proposed Rulemaking includes these 60 small entities. No auctions have been held for 800 MHz geographic area SMR licenses. Therefore, no small entities currently hold these licenses. A total of 525 licenses will be awarded for the upper 200 channels in the 800 MHz geographic area SMR auction. The Commission, however, has not yet determined how many licenses will be awarded for the lower 230 channels in the 800 MHz geographic area SMR auction. There is no basis, moreover, on which to estimate how many small entities will win these licenses. Given that nearly all radiotelephone companies have fewer than 1,000 employees and that no reliable estimate of the number of prospective 800 MHz licensees can be made, we estimate, for purposes of this IRFA, that all of the licenses may be awarded to small entities, some of which may be affected by the policies and rules proposed in this Notice of Proposed Rulemaking.

13. *220 MHz Radio Service -- Phase I Licensees.* The 220 MHz service has both Phase I and Phase II licenses. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a definition of small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the definition under the SBA rules applicable to Radiotelephone Communications companies.<sup>21</sup> According to the Bureau of the Census, only 12 radiotelephone firms out of a total of 1,178 such firms which operated during 1992 had 1,000 or more employees.<sup>22</sup> Therefore, if this general ratio continues to 1999 in the context of Phase I 220 MHz licensees, we estimate that nearly all such licensees are small businesses under the SBA's definition.

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<sup>20</sup> See *Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and the 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool*, PR Docket No. 89-583, Second Order on Reconsideration and Seventh Report and Order, 11 FCC Rcd 2639, 2693-702 (1995); *Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band*, PR Docket No. 93-144, First Report and Order, Eighth Report and Order, and Second Further Notice of Proposed Rulemaking, 11 FCC Rcd 1463 (1995).

<sup>21</sup> 13 C.F.R. § 121.201, SIC Code 4812. This definition provides that a small entity is a radiotelephone company employing no more than 1,500 persons.

<sup>22</sup> U.S. Bureau of the Census, U.S. Department of Commerce, 1992 Census of Transportation, Communications, and Utilities, UC92-S-1, Subject Series, Establishment and Firm Size, Table 5, Employment Size of Firms; 1992, SIC code 4812 (issued May 1995).

14. *220 MHz Radio Service -- Phase II Licensees.* The Phase II 220 MHz service is a new service, and is subject to spectrum auctions. In the 220 MHz *Third Report and Order* we adopted criteria for defining small businesses and very small businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.<sup>23</sup> We have defined a small business as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. Additionally, a very small business is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than three million dollars for the preceding three years.<sup>24</sup> An auction of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.<sup>25</sup> 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold. Companies claiming small business status won: one of the Nationwide licenses, 67% of the Regional licenses, and 54% of the EA licenses. As of January 22, 1999, the Commission announced that it was prepared to grant 654 of the Phase II licenses won at auction.<sup>26</sup> A reauction of the remaining, unsold licenses was completed on June 30, 1999, with 16 bidders winning 222 of the Phase II licenses.<sup>27</sup> As a result, we estimate that 16 or fewer of these final winning bidders are small or very small businesses.

15. *Paging Licensees.* On June 7, 1999, the Wireless Telecommunications Bureau announced the first in a series of auctions of paging licenses, the first to commence on December 7, 1999.<sup>28</sup> The Bureau has proposed that the first auction be composed of 2,499 licenses.<sup>29</sup> The Commission utilizes a two-tiered definition of small businesses in the context of auctioning licenses in the Common Carrier Paging and exclusive Private Carrier Paging services.<sup>30</sup> A small business is defined as either (1) an entity that, together with its affiliates and controlling principals, has average gross revenues for the three preceding years of not more than \$3 million, or (2) an entity that, together with affiliates and controlling principals, has average gross

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<sup>23</sup> Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by Private Land Mobile Radio Service, Third Report and Order and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, 11068-70, at paras. 291-295 (1997) (*220 MHz Third Report and Order*). The SBA has approved these definitions. See Letter from A. Alvarez, Administrator, SBA, to D. Phythyon, Chief, Wireless Telecommunications Bureau, FCC (Jan. 6, 1998).

<sup>24</sup> *220 MHz Third Report and Order*, 12 FCC Rcd at 11068-69, para. 291.

<sup>25</sup> See generally Public Notice, "220 MHz Service Auction Closes," Report No. WT 98-36 (Wireless Telecom. Bur. Oct. 23, 1998).

<sup>26</sup> Public Notice, "FCC Announces It is Prepared to Grant 654 Phase II 220 MHz Licenses After Final Payment is Made," Report No. AUC-18-H, DA No. 99-229 (Wireless Telecom. Bur. Jan. 22, 1999).

<sup>27</sup> Public Notice, "Phase II 220 MHz Service Spectrum Auction Closes," Report No. AUC-99-24-E, DA No. 99-1287 (Wireless Telecom. Bur. July 1, 1999).

<sup>28</sup> Public Notice, "First Paging Service Spectrum Auction Scheduled for December 7, 1999," Report No. AUC-99-26-A, DA No. 99-1103 (Wireless Telecom. Bur. June 7, 1999).

<sup>29</sup> *Id.*

<sup>30</sup> See 47 C.F.R. § 20.9(a)(1) (noting that private paging services may be treated as common carriage services).

revenues for the three preceding calendar years of not more than \$15 million. The SBA has approved this definition.<sup>31</sup> At present, there are approximately 24,000 Private Paging licenses and 74,000 Common Carrier Paging licenses. In addition, according to the most recent *Carrier Locator* data, 137 carriers reported that they were engaged in the provision of either paging or messaging services, which are placed together in the data.<sup>32</sup> Because the auction has yet to occur, we do not have data specifying the number of winning bidders that will meet the above small business definition. Also, we will assume that there currently are 137 or fewer small business paging carriers.

16. *Narrowband PCS Licensees.* The Commission has auctioned nationwide and regional licenses for narrowband PCS. There are 11 nationwide and 30 regional licensees for narrowband PCS. The Commission does not have sufficient information to determine whether any of these licensees are small businesses within the SBA-approved definition for radiotelephone companies. At present, there have been no auctions held for the major trading area (MTA) and basic trading area (BTA) narrowband PCS licenses. The Commission anticipates a total of 561 MTA licenses and 2,958 BTA licenses will be awarded by auction. Such auctions have not yet been scheduled, however. Given that nearly all radiotelephone companies have no more than 1,500 employees and that no reliable estimate of the number of prospective MTA and BTA narrowband licensees can be made, we assume, for purposes of this IRFA, that all of the licenses will be awarded to small entities, as that term is defined by the SBA.

17. *Rural Radiotelephone Service.* The Commission has not adopted a definition of small entity specific to the Rural Radiotelephone Service.<sup>33</sup> A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio Systems (BETRS).<sup>34</sup> We will use the SBA's definition applicable to radiotelephone companies, *i.e.*, an entity employing no more than 1,500 persons.<sup>35</sup> There are approximately 1,000 licensees in the Rural Radiotelephone Service, and we estimate that almost all of them qualify as small entities under the SBA's definition.

18. *Air-Ground Radiotelephone Service.* The Commission has not adopted a definition of small entity specific to the Air-Ground Radiotelephone Service.<sup>36</sup> Accordingly, we will use the SBA's definition applicable to radiotelephone companies, *i.e.*, an entity employing no more than 1,500 persons.<sup>37</sup> There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small entities under the SBA definition.

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<sup>31</sup> See Letter from A. Alvarez, Administrator, SBA, to A.J. Zoslov, Chief, Auctions Division, Wireless Telecommunications Bureau, FCC (Dec. 2, 1998).

<sup>32</sup> *Carrier Locator* at Fig. 1.

<sup>33</sup> The service is defined in section 22.99 of the Commission's rules, 47 C.F.R. § 22.99.

<sup>34</sup> BETRS is defined in sections 22.757 and 22.759 of the Commission's rules, 47 C.F.R. §§ 22.757, 22.759.

<sup>35</sup> 13 C.F.R. § 121.201, SIC Code 4812.

<sup>36</sup> The service is defined in section 22.99 of the Commission's rules, 47 C.F.R. § 22.99.

<sup>37</sup> 13 C.F.R. § 121.201, SIC Code 4812.

19. *Private Land Mobile Radio (PLMR).* PLMR systems, also known as Private Mobile Radio Service (PMRS) systems, serve an essential role in a range of industrial, business, land transportation, and public safety activities.<sup>38</sup> These radios are used by companies of all sizes operating in all U.S. business categories. The Commission has not developed a definition of small entity specifically applicable to PLMR licensees due to the vast array of PLMR users. For the purpose of determining whether a licensee is a small business as defined by the SBA, each licensee would need to be evaluated within its own business area. The Commission is unable at this time to estimate the number of small businesses, if any, that could be impacted by the proposed rules. However, the Commission's 1994 Annual Report on PLMRs<sup>39</sup> indicates that at the end of fiscal year 1994 there were 1,087,267 licensees operating 12,481,989 transmitters in the PLMR bands below 512 MHz. Because any entity engaged in a commercial activity is eligible to hold a PLMR license, the proposed rules in this context could potentially impact any small U.S. business that chooses to become licensed in this service. On July 21, 1999, the Wireless Telecommunications Bureau requested public comment on whether the licensing of PMRS frequencies in the 800 MHz band for commercial SMR use would serve the public interest.<sup>40</sup>

20. *Fixed Microwave Services.* Microwave services include common carrier,<sup>41</sup> private-operational fixed,<sup>42</sup> and broadcast auxiliary radio services.<sup>43</sup> At present, there are approximately 22,015 common carrier fixed licensees in the microwave services. The Commission has not yet defined a small business with respect to microwave services. For purposes of this IRFA, we will utilize the SBA's definition applicable to radiotelephone companies -- *i.e.*, an entity with no more than 1,500 persons.<sup>44</sup> We estimate, for this purpose, that all of the Fixed Microwave licensees (excluding broadcast auxiliary licensees) would qualify as small entities under the SBA definition for radiotelephone companies.

21. *Offshore Radiotelephone Service.* This service operates on several UHF TV broadcast channels that are not used for TV broadcasting in the coastal area of the states

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<sup>38</sup> See 47 C.F.R. § 20.9(a)(2) (noting that certain Industrial/Business Pool service may be treated as common carriage service).

<sup>39</sup> Federal Communications Commission, *60th Annual Report, Fiscal Year 1994*, at 116.

<sup>40</sup> Public Notice, "Wireless Telecommunications Bureau Incorporates Nextel Communications, Inc. Waiver Record into WT Docket No. 99-87: Seeks Comment on Licensing of PMRS Channels in the 800 MHz Band for Use in Commercial SMR Systems," DA 99-1431 (Wireless Telecom. Bureau July 21, 1999).

<sup>41</sup> 47 C.F.R. § 101 *et seq.* (formerly, Part 21 of the Commission's rules).

<sup>42</sup> Persons eligible under Parts 80 and 90 of the Commission's rules can use Private Operational-Fixed Microwave services. See 47 C.F.R. Parts 80 and 90. Stations in this service are called operational-fixed to distinguish them from common carrier and public fixed stations. Only the licensee may use the operational-fixed station, and only for communications related to the licensee's commercial, industrial, or safety operations.

<sup>43</sup> Auxiliary Microwave Service is governed by Part 74 of the Commission's Rules. See 47 C.F.R. § 74 *et seq.* Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

<sup>44</sup> 13 C.F.R. § 121.201, SIC Code 4812.

bordering the Gulf of Mexico.<sup>45</sup> At present, there are approximately 55 licensees in this service. We are unable at this time to estimate the number of licensees that would qualify as small entities under the SBA's definition for radiotelephone communications.

22. *Wireless Communications Services.* This service can be used for fixed, mobile, radio location and digital audio broadcasting satellite uses. The Commission defined "small business" for the wireless communications services (WCS) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a "very small business" as an entity with average gross revenues of \$15 million for each of the three preceding years. The Commission auctioned geographic area licenses in the WCS service. In the auction, there were seven winning bidders that qualified as very small business entities, and one that qualified as a small business entity. We conclude that the number of geographic area WCS licensees that may be affected by the decisions and rules proposed in the Further Notice includes these eight entities.

23. *Multipoint Distribution Systems (MDS).* The Commission has defined "small entity" for the auction of MDS as an entity that, together with its affiliates, has average gross annual revenues that are not more than \$40 million for the preceding three calendar years.<sup>46</sup> This definition of a small entity in the context of MDS auctions has been approved by the SBA.<sup>47</sup> The Commission completed its MDS auction in March 1996 for authorizations in 493 basic trading areas (BTAs). Of 67 winning bidders, 61 qualified as small entities.<sup>48</sup>

24. MDS is also heavily encumbered with licensees of stations authorized prior to the auction. The SBA has developed a definition of small entities for pay television services, which includes all such companies generating \$11 million or less in annual receipts.<sup>49</sup> This definition includes multipoint distribution systems, and thus applies to MDS licensees and wireless cable operators which did not participate in the MDS auction. Information available to us indicates that there are 832 of these licensees and operators that do not generate revenue in excess of \$11 million annually. Therefore, for purposes of this IRFA, we find there are approximately 892 small MDS providers as defined by the SBA and the Commission's auction rules, some which may be affected by the decisions and rules proposed in the Further Notice.

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<sup>45</sup> This service is governed by Subpart I of Part 22 of the Commission's Rules. See 47 C.F.R. §§ 22.1001 - 22.1037.

<sup>46</sup> 47 C.F.R. § 21.961(b)(1).

<sup>47</sup> See Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act - Competitive Bidding, MM Docket No. 94-31 and PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589 (1995).

<sup>48</sup> One of these small entities, O'ahu Wireless Cable, Inc., was subsequently acquired by GTE Media Ventures, Inc., which did not qualify as a small entity for purposes of the MDS auction.

<sup>49</sup> 13 C.F.R. § 121.201.

**B. Satellite Providers**

25. *International Service Providers.* The Commission has not developed a definition of small entities applicable to licensees in the international services. Therefore, the applicable definition of small entity is the definition under the SBA rules applicable to Communications Services, Not Elsewhere Classified (NEC). This definition provides that a small entity is expressed as one with \$11 million or less in annual receipts.<sup>50</sup> According to the Census Bureau, there were a total of 848 Communications Services NEC in operation in 1992, and a total of 775 had annual receipts of less than \$9.999 million.<sup>51</sup> We note that those entities providing only international service will not be affected by our proposed rules, if adopted. We do not, however, have sufficient data to estimate with greater detail those entities providing both international and domestic services or only domestic service. Consequently, we estimate that there are fewer than 775 small international service entities potentially impacted by our rules.

26. *Fixed Satellite Transmit/Receive Earth Stations.* Based on actual payments from FY 1998, there are approximately 3,100 earth station authorizations, a portion of which are Fixed Satellite Transmit/Receive Earth Stations.<sup>52</sup> We do not request nor collect annual revenue information, and thus are unable to estimate the number of the earth stations that would constitute a small business under the SBA definition.

27. *Fixed Satellite Small Transmit/Receive Earth Stations.* There are 3,100 earth station authorizations, a portion of which are Fixed Satellite Small Transmit/Receive Earth Stations.<sup>53</sup> We do not request nor collect annual revenue information, and thus are unable to estimate the number of fixed satellite transmit/receive earth stations that would constitute a small business under the SBA definition.

28. *Fixed Satellite Very Small Aperture Terminal (VSAT) Systems.* These stations operate on a primary basis, and frequency coordination with terrestrial microwave systems is not required. Thus, a single "blanket" application may be filed for a specified number of small antennas and one or more hub stations. The Commission has processed 377 applications.<sup>54</sup> We do not request nor collect annual revenue information, and thus are unable to estimate the number of VSAT systems that would constitute a small business under the SBA definition.

29. *Mobile Satellite Earth Stations.* There are 11 licensees.<sup>55</sup> We do not request nor collect annual revenue information, and thus are unable to estimate the number of mobile satellite earth stations that would constitute a small business under the SBA definition.

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<sup>50</sup> 13 C.F.R. § 120.121, SIC 4899.

<sup>51</sup> United States Dept. of Commerce, Bureau of Census, 1992 Economic Census Industry and Enterprise Receipts Size Report, at Table 2D.

<sup>52</sup> See Assessment and Collection of Regulatory Fees for Fiscal Year 1999, *Report and Order*, FCC 99-146, at Attachment A (rel. June 18, 1999).

<sup>53</sup> *Id.*

<sup>54</sup> *Id.*

<sup>55</sup> *Id.*

30. *Radio Determination Satellite Earth Stations.* There are four licensees.<sup>56</sup> We do not request nor collect annual revenue information, and thus are unable to estimate the number of radio determination satellite earth stations that would constitute a small business under the SBA definition.

31. *Space Stations (Geostationary).* Commission records show that there are 43 Geostationary Space Station licensees.<sup>57</sup> We do not request nor collect annual revenue information, and thus are unable to estimate the number of geostationary space stations that would constitute a small business under the SBA definition.

32. *Space Stations (Non-Geostationary).* There are 12 Non-Geostationary Space Station licensees, of which only two systems are operational.<sup>58</sup> We do not request nor collect annual revenue information, and thus are unable to estimate the number of non-geostationary space stations that would constitute a small business under the SBA definition.

#### **IV. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements**

33. This Notice of Proposed Rulemaking proposes no additional reporting or recordkeeping measures. The Notice of Proposed Rulemaking does seek comment on whether the Commission should permit additional flexibility in its rules to create incentives for the extension of wireless or satellite service to tribal lands or other unserved areas. For example, in section III.A.1 of the Notice of Proposed Rulemaking above, we seek comment on whether to relax antenna height and transmitter power limits for providers that commit to serving tribal lands or other unserved areas. In section III.A.2 of the Notice of Proposed Rulemaking above, we seek comment on whether to liberalize our buildout rules for providers that commit to serve a tribal land or other unserved area. In section III.A.7 of the Notice of Proposed Rulemaking above, we state that to the extent that we grant additional flexibility to providers, we believe it is important to ensure that providers actually provide service to tribal lands or other unserved areas in exchange for such flexibility. We therefore seek comment in that section on whether the grant of additional flexibility to wireless or satellite licensees should be conditioned on the existence of a binding agreement between the licensee and relevant tribal authority in the case of tribal lands, or a binding agreement between the licensee and another authority in the case of other unserved areas. To the extent that licensees choose to take advantage of any additional flexibility that we adopt, they may be required to comply with requirements to prove the existence of such binding agreements.

#### **V. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered**

34. As described in Section II of the Notice of Proposed Rulemaking above, the Commission held two public hearings earlier this year at which federal and state officials, tribal

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<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

officials, and telecommunications services providers addressed issues such as the costs of delivering services to remote areas having very low population densities, the impact of the size of local calling areas on the affordability of service, the quality of telephone service on tribal lands, the complexities of governmental jurisdiction and sovereignty issues, and the effects of low incomes and high unemployment on tribal lands on telephone service. Following up on the record developed in those hearings, we have decided to seek comment in this Notice of Proposed Rulemaking on specific potential initiatives that the Commission could adopt to facilitate the provision of telecommunications service to tribal lands and other unserved areas using wireless or satellite technologies.

35. For example, in section III.B.1 of the Notice of Proposed Rulemaking above, we seek comment on whether there are unallocated or unlicensed spectrum bands that could be used by telecommunications providers, including small entities, to serve the needs of tribal lands and other unserved areas. In section III.B of the Notice of Proposed Rulemaking above, we seek comment on whether there are unused channels in otherwise allocated and licensed spectrum that could be used by telecommunications providers, including small entities, to provide telephone service to tribal lands and other unserved areas. In section III.A.5 of the Notice of Proposed Rulemaking above, we seek comment on whether the Commission should modify its restrictions on the transfer of spectrum from “designated entities” (DEs) (entrepreneurs and small businesses) to non-DEs in order to facilitate the provision of telecommunications service to tribal lands or other unserved areas. We believe that at this juncture it is necessary to seek comment on the various alternatives set forth in this Notice of Proposed Rulemaking, including the three listed as examples above, for encouraging the provision of telecommunications service to tribal lands and other unserved areas. We encourage commenters to discuss any other alternatives that would minimize any significant economic impact on small entities.

## **VI. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules**

36. None.

**Separate Statement of  
Commissioner Gloria Tristani**

*Re: Federal-State Joint Board on Universal Service: Promoting Deployment and  
Subscribership in Unserved and Underserved Areas, CC Docket No. 96-45; Extending Wireless  
Telecommunications Services to Tribal Lands, WT Docket No. 99-266.*

I write separately to underscore my support for these items. Both Notices of Proposed Rulemaking are intended to address and remedy the dearth of telecommunications in Indian country and other unserved and underserved areas. The facts are not in dispute. While Americans on average enjoy a telephone subscribership rate of 94%, many communities and areas throughout the land are not so fortunate. And Indians living on tribal lands are the least fortunate of all. Telephone subscribership rates on tribal lands fall under 50% in many instances and even under 30%, as in the case of the Navajo reservation.

These woeful statistics are not new, and this is not the first time that the federal government and others have taken notice. What is new, is that the Federal Communications Commission has not only taken notice, but is now embarked in taking concrete action to change these statistics. The items ask thoughtful, appropriate and insightful questions, including questions about the scope of the problem, the nature of the federal relationship with tribal sovereign governments, and the extent to which the FCC should act to remedy the problem.

But, more importantly, the items posit concrete suggestions – targeting universal service support, bolstering and/or tailoring the Lifeline and Linkup programs, using alternative technologies – on how to provide telecommunication services to Indian country and other unserved and underserved communities. These suggestions are good first steps but I hope commenters will not hesitate to suggest any other appropriate and innovative measures.

Finally, while I am proud to support these items, I believe it is our statutory and moral obligation to bring telecommunications to Indian country. Section 254 of the Telecommunications Act mandates that we assure that all Americans have access to telecommunications services. The federal trust relationship between tribal sovereign governments and the federal government suggests that we have an obligation to do even more. But history, notions of equality, and the principles on which this Nation was founded tell us that is unconscionable that Indians, the first Americans, remain the last Americans to enjoy the wonders and benefits of the Information Age. I trust that the small steps we take today will go a long way in changing this picture.