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

In the Matter of)
)
Amendment of the Commission's Rules) WT Docket No. 96-6
To Permit Flexible Service Offerings)
in the Commercial Mobile Radio Services)

NOTICE OF PROPOSED RULE MAKING

Adopted: January 24, 1996

Released: January 25, 1996

COMMENT DATE: February 26, 1996

REPLY COMMENT DATE: March 18, 1996

BY THE COMMISSION: Commissioner Chong issuing a separate statement.

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I. INTRODUCTION

1. In this Notice of Proposed Rule Making ("*Notice*"), we propose that broadband Commercial Mobile Radio Service ("CMRS")("broadband CMRS")¹ providers be authorized to offer fixed wireless local loop service. We also solicit comment on whether other or all fixed services should be permitted in addition to the mobile and related fixed services now permitted. We initiate this proceeding on our own motion to address the uncertainty in our existing rules on the extent to which fixed services may be provided by broadband Personal Communications Service ("PCS"), Cellular Radiotelephone Service ("cellular"), and Special Mobile Radio ("SMR") providers. The measures we propose should increase competition within wireless services and promote competition between wireless and wireline services.

II. BACKGROUND

2. The Communications Act defines "mobile service" as a "radio communication service carried on between mobile stations or receivers and land stations, and by mobile stations communicating among themselves and includes (1) both one-way and two-way radio communication services, (2) a mobile service which provides a regularly interacting group of base, mobile, portable, and associated control and relay stations (whether licensed on an individual, cooperative, or multiple basis) for private one-way or two-way land mobile radio communications by eligible users over designated areas of operation, and (3) any service for which a license is required in a personal communications service established pursuant to the proceeding entitled "Amendment to the Commission's Rules to Establish New Personal Communications Services" (GEN Docket No. 90-314; ET Docket No. 92-100), or any successor proceeding." 47 U.S.C. § 153(n).²

¹ The services under "broadband CMRS" includes Broadband Personal Communications Service, Cellular Radiotelephone Service and Specialized Mobile Radio. See *In the Matter of Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services*, GN Docket No. 93-252, Third Report and Order, 9 FCC Rcd 7988, 8105-8110, ¶¶ 252-265 (1994).

² Section 20.9 of the Commission's rules defines the mobile services regulated as commercial mobile radio services pursuant to Section 332 of the Communications Act of 1934, as amended, 47 U.S.C. § 332, as follows: Private Paging (Part 90), excluding not for profit paging systems that serve only the licensee's own internal communications needs; Business Radio Services (Part 90) that offer customers for-profit interconnected service; Land Mobile Systems on 220-222 MHz (Part 90), except services that are not for profit or do not offer interconnected service; Specialized Mobile Radio Services that provide interconnected service (Part 90); Public Coast Stations (Part 80, subpart J); Public Mobile Service (paging and radiotelephone service and 454 MHz air-ground radiotelephone service) (Part 22, subparts E and G); Cellular Radiotelephone Service (Part 22, subpart H); 800 MHz Air-

3. In the *CMRS Second Report and Order*, the Commission interpreted the statutory definition of mobile service to include "all auxiliary services provided by mobile services licensees," but then distinguished between fixed point-to-point services and those services capable of being provided in a "mobile mode."³ The *CMRS Second Report and Order* excludes from the mobile definition those services which are solely fixed in nature (e.g., Basic Exchange Telephone Radio Service (BETRS)), but categorizes other services that have some fixed uses as mobile by virtue of having a mobile component or mobile capabilities. For example, we determined that services provided through dual-use equipment, such as Inmarsat-M terminals that can be moved while transmitting, are mobile.⁴

4. Our current rules for broadband CMRS services allow licensees to provide all forms of mobile services, including local loop services that are mobile in nature. In addition, broadband CMRS providers may provide some forms of fixed service subject to certain limitations. Our PCS rules, for instance, permit PCS licensees to provide any fixed service that is ancillary to their mobile operations.⁵ Likewise, SMR providers may use licensed spectrum for certain fixed uses on a secondary, non-interference basis to the primary mobile operations of any other licensee.⁶ Cellular carriers may provide auxiliary common

Ground Radiotelephone Service (Part 22, subpart G); Offshore Radiotelephone Service (Part 22, subpart I); any mobile satellite service involving the provision of CMRS directly to end users, except as exempt under Section 20.9(a)(10); Personal Communications Services (Part 24), except if exempt under Section 20.9(b); for-profit subsidiary communications services transmitted on subcarriers within the FM baseband signal that provide interconnected service (Part 73); and a mobile service that is the functional equivalent of a commercial mobile radio service. 47 C.F.R. § 20.9.

³ *In the Matter of Implementation of Sections 3(n) and 332 of the Communications Act*, GN Docket No. 93-252, Second Report and Order, 9 FCC Rcd 1411, 1424-1425 (1994)(*CMRS Second Report and Order*).

⁴ *Id.*

⁵ See 47 C.F.R. § 24.3; see also Letter from Regina M. Keeney, Chief, Wireless Telecommunications Task Force, to A. Thomas Carroccio, Esq., dated November 15, 1994, wherein the Task Force reiterated the Commission's intent to make the definition of PCS sufficiently inclusive to accommodate a wide range of services and technologies, "including fixed services ancillary to or in support of the provision of a wide range of portable and mobile wireless services and new and creative applications."

⁶ *In the Matter of Amendment of Part 90 of the Commission's Rules to Permit Secondary Fixed Tone Signalling and Alarm Operations by End Users of Trunked SMRS Systems*, PR Docket No. 86-78, Report and Order, 1 FCC Rcd 926 (1986); *In the Matter of Amendment of Part 90 of the Commission's Rules to Permit Exclusive-Use Systems to Conduct Secondary Fixed Signaling and Alarm Operations without Conforming to the Provision of Section*

carrier services and services premised on the use of alternative cellular technologies, so long as such services do not interfere with the authorized cellular service.⁷ Fixed services also may be provided by cellular licensees as incidental communication services under our incidental service rules.⁸

5. Local exchange service delivered by radio link may be provided using architectures consisting of mobile, fixed, or a combination of those components. For example, one possible architecture would be radio-based telephone instruments that are mobile, whether in the home, office, or any other fixed location. Another example would combine wired telephone instruments with a fixed wireless link from the street to a demarcation box on the side of a house, building, or other premises to which wiring connects. Our current rules are unclear, however, on the scope of fixed ancillary services that may be provided by PCS carriers, and as to the types of secondary, auxiliary or incidental services that may be provided by other CMRS providers. Although we previously held that all auxiliary services provided by mobile service licensees would be considered in the definition of "mobile" service by such carriers,⁹ we are finding that carriers are hesitant to take advantage of that flexibility without further guidance from the Commission. We note our original purpose in limiting this spectrum to mobile and related services was to ensure that adequate spectrum was available for these services, which cannot feasibly be provided at higher frequencies.¹⁰ However, it appears that the characterization of permissible use in our

90.235, PR Docket No. 91-322, Report and Order, 7 FCC Rcd 4574 (1992).

⁷ See *In the Matter of Amendment of Parts 2 and 22 of the Commission's Rules to Permit Liberalization of Technology and Auxiliary Service Offerings in the Domestic Public Cellular Radio Telecommunications Service*, GEN Docket No. 87-390, Report and Order, 3 FCC Rcd 7033 (1988); see also 47 C.F.R. § 22.901.

⁸ Licensees of Public Mobile Services may provide services other than the primary services for which they are licensed, provided that the other services are offered on an incidental basis. Section 22.323 (formerly Section 22.308) specifies that incidental communication services can be offered if: (1) the costs and charges to subscribers who do not wish to use the incidental services are not increased; (2) the quality of the primary service does not materially deteriorate as a result of the provision of the incidental services, nor is the growth or availability of the primary service significantly diminished; (3) the incidental service is not inconsistent with the Communications Act; and (4) the licensee notifies the Commission by letter before providing the incidental service and such letter describes in detail the incidental service to be provided. 47 C.F.R. § 22.323.

⁹ *CMRS Second Report and Order*, 9 FCC Rcd 1411, 1424, at ¶ 36.

¹⁰ See *In the Matter of Amendment of the Commission's Rules to Establish New Personal Communications Services*, GEN Docket No. 90-314, First Report and Order and Third Notice of Proposed Rule Making, 7 FCC Rcd 6886, 6888 (1992) ("*PCS First Report and*

rules may be inhibiting carriers intending to use radio links to replace existing wireline service or to bring service to rural or less attractive areas otherwise not being adequately served by wireline providers.¹¹

6. We propose to define "wireless local loop" as the path between the subscriber and the first point of switching or aggregation of traffic. We seek comment on whether this definition will encompass the anticipated service needs of consumers and whether such a definition gives certainty to CMRS providers that are planning and marketing competitive wireless telecommunications networks. We propose a definition for wireless local loop that is sufficiently broad that it is unnecessary to examine the mobile or fixed nature of each particular application.

7. The Commission has discretion under Section 303 of the Communications Act to prescribe the nature of the service to be rendered over radio frequencies and to assign or allocate frequencies to various classes of stations. Nothing in the language of Section 303 (or its legislative history) suggests that the Commission is prohibited from assigning spectrum to stations for more than one permissible use.¹² Furthermore, the Commission is guided by the policies set forth in the Communications Act to encourage the provision of new technologies and services to the public.¹³

8. The federal government as well as state governments are interested in removing barriers to competitive provision of local exchange service throughout the United States. Over the last several years, the Commission and various state governments have taken a number of actions that increased opportunities for competitive provision of local

Order").

¹¹ The Commission created the Basic Exchange Telecommunications Radio Service, or BETRS, in response to the lack of standard telephone service in remote areas due to the prohibitive cost of bringing wire or cable to those areas. See *Basic Exchange Telecommunications Radio Service*, CC Docket No. 786-495, Report and Order, 3 FCC Rcd 214 (19878). Currently, local exchange carriers and other carriers receiving state certifications may provide BETRS under the Commission's rules. 47 C.F.R. § 22.702.

¹² See 47 U.S.C. § 303. Notably, when allocating spectrum for a new General Purpose Mobile Service accessible to all land mobile, maritime mobile, and aeronautical mobile uses, the Commission noted that "[n]othing in Sections 303(a)-(c) [of the Communications Act] suggests the Commission is not permitted to take into account marketplace forces when exercising its spectrum allocation responsibilities under the public interest standard." *In the Matter of Amendment of Parts 2 and 22 of the Commission's Rules Relative to Cellular Communications Systems*, GEN Docket No. 84-1231, Report and Order, 2 FCC Rcd 1825, 1839, at ¶ 110 (1986).

¹³ See 47 U.S.C. § 157.

telecommunications services. A number of states have already enacted legislation or completed other measures to introduce new local exchange service providers.¹⁴ In a series of decisions from 1992 to 1994, the Commission implemented expanded interconnection and collocation policies that created new opportunities for competitive provision of access services that have been traditionally offered by only the local telephone companies. These decisions were fundamental to opening the interstate special access and switched transport markets to competition.¹⁵

9. More recently, in a Notice of Proposed Rule Making adopted in July, 1995, the Commission noted that the Local Multipoint Distribution Service -- a wireless technology operating in the 28 GHz band -- "may provide services that compete with local exchange carriers in the provision of local exchange service...."¹⁶ By the instant *Notice*, the Commission takes additional steps to foster competitive local exchange service by proposing that broadband CMRS providers also be able to offer the equivalent of local exchange service using existing allocations for PCS, cellular and SMR. The flexible regulatory scheme proposed in this *Notice* will help eliminate the need for the Commission to initiate a rule making or grant multiple waivers each time a broadband CMRS provider or new entrant to a market wishes to adjust its operational mode to respond to consumers' changing communications requirements. Our proposed approach here is consistent with prior decisions and current proposals.¹⁷

¹⁴ See *National Association of Regulatory Utility Commissioners Report on the Status of Competition in Intrastate Telecommunications* (Oct. 4, 1995 ed.).

¹⁵ See generally, *In the Matter of Expanded Interconnection with Local Telephone Company Facilities*, CC Docket No. 91-141, Memorandum Opinion and Order, 9 FCC Rcd 5154 (1994).

¹⁶ *In the Matter of Rule Making 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 Band, To Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, Third Notice of Proposed Rule Making and Supplemental Tentative Decision*, CC Docket No. 92-297, 60 Fed. Reg. 43,740, at ¶ 27 (August 23, 1995); See also *In the Matter of Rochester Telephone Corporation Petition for Waivers to Implement Its Open Market Plan*, FCC 95-96, Order, 10 FCC Rcd 6776, 6782, at ¶ 13 (1995); *In the Matter of NYNEX Telephone Companies Petition for Waiver, Transition Plan to Preserve Universal Service in a Competitive Environment*, FCC 95-185, Memorandum Opinion and Order, 10 FCC Rcd 7445, 7475-76, at ¶¶ 73-74 (1995); *In the Matter of Applications of Pacific Bell*, FCC 95-302, 1995 WL 478481(FCC) at ¶ 58 (1995).

¹⁷ See, e.g., *In the Matter of Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use*, ET Docket No. 94-32, First Report and Order and Second Notice of Proposed Rule Making, 10 FCC Rcd 4769, 4781 (1995) ("5 GHz First Report and Order"); Second Report and Order, 60 Fed. Reg. 40,712 (Aug. 9, 1995) ("5 GHz Second

III. DISCUSSION

A. Expanded Service Options on PCS Channels.

10. In the *Notice of Proposed Rule Making* in the PCS proceeding ("*PCS NPRM*"), we observed that personal communications requirements are changing rapidly as our society becomes more mobile and the demand for nearly instantaneous communications and universal access increases.¹⁸ We proposed to define PCS as a family of services that could provide communications to individuals and business, and be integrated with a variety of competing networks. Most of the commenters in the PCS proceeding agreed that PCS should be flexible enough to provide a wide range and variety of services, envisioned generally as mobile or portable radio communications. The *PCS NPRM* further proposed that fixed services generally be allowed only as ancillary to mobile PCS services. Some parties in the PCS proceeding argued, however, that restrictions on use of PCS spectrum for fixed services on PCS channels are inadequate to define an emerging technology and implementation of a new service.¹⁹

11. A number of early trials under PCS experimental licenses included a variety of technologies and service concepts, including personal communications networks (PCN), private branch exchange (PBX), and wireless local loop.²⁰ We indicated that wireless local

Report and Order") (permit fixed wireless local loop service in 4660-4685 band); *In the Matter of 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*, MM Docket No. 94-131, Report and Order, 10 FCC Rcd 9589 (1995) (MDS stations may render any kind of communications service on a common carrier or non-common carrier basis); *In the Matter of 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, Second Memorandum Opinion and Order and Third Notice of Proposed Rule Making, 60 Fed. Reg. 46,564 (Sept. 7, 1995) (proposal to allow fixed operations on a primary basis with land mobile operations in band).

¹⁸ *In the Matter of Amendment of the Commission's Rules to Establish New Personal Communications Services*, GEN Docket No. 90-314 and ET Docket No. 92-100, Notice of Proposed Rule Making and Tentative Decision, 7 FCC Rcd 5676 (1992).

¹⁹ See *PCS Second Report and Order*, 8 FCC Rcd 7700, 7710-7712.

²⁰ See *PCS Second Report and Order*, 8 FCC Rcd 7700, 7705. At that time, we described PCN as a "proposed advanced voice and data communications system that would be independent of, but permit connection to, the existing wireline public switched telephone network and cellular systems." Wireless PBX service was described as the means to permit telephone portability in office environments, and wireless local loop service "could replace

loop service is a type of PCS in the *PCS NPRM*.²¹ Based upon concepts expressed in comments, the experimental applications granted, and the pioneer preference requests, we concluded in the *PCS Second Report and Order* that proposed services and devices would likely range from advanced wireless replacements for ordinary telephones to radio communications devices capable of sending and receiving voice and data to and from virtually anywhere.²² Specific kinds of PCS services and devices cited in the *PCS Second Report and Order* were expected to include advanced forms of cellular telephone service, advanced digital cordless telephone service, portable facsimile services, wireless PBX services, and wireless local area network (LAN) services, among others.²³ We predicted that these new services and devices would operate through existing public switched networks, or through alternative local networks such as cable television systems. We also indicated, however, that PCS also would exist independent of local wired networks, "filling gaps in existing communications services and creating new markets."²⁴

12. Accordingly, our current PCS rules permit licensees to provide any mobile communications service on their assigned frequencies to satisfy mobile communications needs.²⁵ The rules also provide that "fixed services (except for broadcast services) may be provided if ancillary to mobile operations." 47 C.F.R. § 24.3. Otherwise, a carrier must seek a waiver to offer primarily fixed service, demonstrating that such service best meets the demands of an area.²⁶ The rationale for prohibiting broadcast and non-ancillary fixed services in PCS spectrum was the limited amount of spectrum available to provide mobile service and the availability of other frequency bands or other media to provide broadcast and fixed services.²⁷ The ancillary fixed use language was not intended, however, to exclude fixed services totally, but to preserve the anticipated mobile operations attributable to PCS technologies as understood in the earlier stages of PCS development.

13. The current restriction on fixed use of the channels in our PCS rules may not reflect current stages of the developing PCS market and could hinder carriers from quickly

the 'last mile' to the home with a radio link." *Id.* at n.11.

²¹ *PCS NPRM* 7 FCC Rcd 5676, 5681, at ¶ 10.

²² *PCS Second Report and Order*, 8 FCC Rcd 7700, 7712.

²³ *Id.*

²⁴ *Id.*

²⁵ See *PCS Second Report and Order*, 8 FCC Rcd 7700, 7712, at ¶ 23.

²⁶ See *5 GHz First Report and Order*, 10 FCC Rcd 4769, 4781.

²⁷ See *PCS Second Report and Order*, 8 FCC Rcd 7700, 7712, at ¶ 22.

and economically using channel capacity to meet changing market demand. As indicated in the earlier PCS proceedings, we always have intended wireless local loop to be a part of the family of services that meet our definition of PCS, whether implemented as a mobile or fixed service. We therefore propose to amend our existing broadband PCS rules to clarify that broadband PCS providers may provide wireless local loop services, as defined above, along with mobile service as principal uses of spectrum allocated to broadband PCS. Under this proposal, the permissible communications language in the existing broadband PCS rules would be amended to explicitly encompass fixed wireless local loop.

14. While broadband PCS systems will use digital or other highly efficient technology to achieve tremendous system capacity, current technology supports economical mobile services only up to approximately 3 GHz.²⁸ Given this technological constraint, we seek comment on whether the currently allocated broadband PCS spectrum will provide sufficient capacity for mobile uses if fixed wireless local loop services are provided on broadband PCS spectrum. Alternatively, should the Commission allow the operation of the market to determine the most efficient use of the broadband PCS spectrum?

15. Finally, we seek comment on whether additional interference or other operational rules are needed to accommodate fixed wireless local loop uses of the broadband PCS channels. What changes are needed to our existing technical rules? Are additional technical rules required to govern fixed wireless local loop uses in the broadband PCS bands? Our intent is to have the necessary technical rules to minimize interference without unduly hindering a carrier's ability to offer a variety of services.

B. Expanded Service Options on Other CMRS Channels.

16. The proposed changes in the broadband PCS rules to expand the service offerings permissible on broadband PCS channels to include fixed wireless local loop services would suggest that similar treatment be afforded to other categories of CMRS that have the potential to directly compete with PCS. The Commission previously has held that all commercial mobile radio services are "substantially similar" by virtue of existing competition or the potential for competition among the CMRS categories.²⁹ In our recent report to Congress on CMRS competition, we reiterated our previous findings in the CMRS proceeding that cellular and SMR services in the short term are most likely to directly compete with each other and

²⁸ See P. Marangoni, D. Campbell, A. Serafini, M. McGowan, Office of Engineering and Technology, Federal Communications Commission, *Creating New Technology Bands for Emerging Telecommunications Technology*, January 1992 (OET/TS 92-1).

²⁹ *In the Matter of Implementation of Sections 3(n) and 332 of the Communications Act*, GN Docket No. 93-252, Third Report and Order, 9 FCC Rcd 7988 (1994) ("*CMRS Third Report and Order*").

with broadband PCS, because each service consists largely of two-way, mobile telephony.³⁰ Broadening the permissible service options for cellular and SMR results in those CMRS providers having more flexibility to meet market demand, including meeting demand that traditionally has been serviced by wireline common carriers.³¹ We therefore propose to permit licensees to provide fixed wireless local loop services on their licensed cellular and SMR spectrum.

17. As with PCS, we seek comment regarding (1) whether and to what extent cellular and SMR service rules should be changed to permit flexibility in the provision of fixed wireless local loop as well as mobile services;³² (2) implications on the availability of spectrum for mobile services (*see* ¶ 14, *supra*); and (3) specific operational, interference or technical rules to permit fixed wireless local loop uses of the cellular and SMR channels.

18. In recognition that CMRS consists of "substantially similar" services by virtue of potential competition among and between all of those services, we also request comment on whether the public interest would be served by also permitting "narrowband" CMRS providers the operational flexibility to offer fixed wireless local loop services as proposed for broadband CMRS. These other "narrowband" CMRS offerings include paging, narrowband PCS, commercial 220 MHz service, and interconnected business radio service (collectively, "narrowband CMRS").

C. Regulatory Treatment When Fixed Wireless Local Loop Services Are Provided On CMRS Systems.

19. If we ultimately decide to allow fixed wireless local loop services by CMRS providers, we also must decide how such services are to be regulated. It is clear that PCS

³⁰ *In the Matter of Implementation of Section 6002(B) of the Omnibus Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, FCC 95-317, First Report, 10 FCC Rcd 8844, 8867-68, ¶¶ 66-67 (1995); *see also*, *CMRS Second Report and Order*, 9 FCC Rcd 1411, 1467-69.

³¹ In approving the McCaw/AT&T merger, we noted that our action would enable McCaw to compete more vigorously with the Bell Operating Companies, as a facilities-based cellular licensee and as a reseller of regional, inter-LATA or interexchange services in local cellular markets. *In re Applications of Craig O. McCaw, Transferor, and American Telephone and Telegraph Company, Transferee*, File No. ENF-93-44 and File No. 05288-CL-TC-1-93 *et al.*, Order, 9 FCC Rcd 5836, 5872, ¶ 60 (1994).

³² *See, e.g.*, Part 22 restrictions on fixed base-to-base communications, Section 22.923, 47 C.F.R. § 22.923; Part 90 limitations on operations between base stations at fixed locations, Section 90.419, 47 C.F.R. § 90.419; Part 20, which does not provide for fixed services for CMRS, Section 20.9, 47 C.F.R. § 20.9.

providers intend to integrate mobile, wireless fixed, wireline networks, and cable facilities into seamless packaged offerings that could span several states.³³ Some of these networks will go beyond regional coverage to achieve seamless nationwide coverage. The Omnibus Reconciliation Act of 1993 ("Budget Act"), which amended the Communications Act³⁴ to create the CMRS regulatory classification, reflects Congress' intent to establish regulatory symmetry among mobile services.³⁵ The broad goal of this legislation was to ensure that economic forces -- not disparate regulatory requirements -- shape the development of the CMRS marketplace. In addition, we established in the *CMRS Second Report and Order* that all auxiliary services provided by mobile services licensees would be included within the definition of mobile services, including ancillary fixed communications offered by PCS providers, to preserve the flexibility necessary to meet growing consumer demand for a broad range of mobile services.³⁶

20. The ability of a carrier to offer consumers a "menu" of services, which could include fixed wireless local loop services, adds value to the carrier's mobile services because it gives the mobile customer the option of using the fixed and mobile applications offered by a single provider. Presumably, to achieve economies of scale with such integrated networks, those carriers would use the same facilities, regardless of whether the services are provided intrastate or interstate. Consequently, we do not want to discourage the development of such integrated networks by subjecting carriers to multiple layers of regulation. We, therefore, propose to treat fixed wireless local loop services as an integral part of the CMRS services offered by a CMRS provider, so long as the carrier otherwise offers interconnected, for-profit mobile service to the public on licensed CMRS spectrum as provided by the

³³ See e.g., Bob Sellinger and J. T. Wood, *Bridging the Cellular-to-PCS Gap*, Cellular Marketing, July 1995 at 16; *Broadband PCS Auction Nets \$7.7 Billion; AT&T, Sprint, Bell Companies Win 70 of 99 Licenses*, Telecommunications Report, March 20, 1995; *MCI Domestic Strategy*, Inside Telecom, November 7, 1994. In comments to the initial Notice of Proposed Rule Making in the CMRS proceeding, MCI Telecommunications Corporation reported that market trials of PCS, including GTE's Tampa trial of Tele-Go, have shown that consumers wished to use PCS devices in their homes as well as throughout the community. MCI comments at 4 filed in *PCS NPRM*.

³⁴ Communications Act of 1934, as amended, 47 U.S.C. § 332 ("Communications Act").

³⁵ Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, Title VI, § 6002(b)(2)(A) and § 6002(b)(2)(B), 107 Stat. 312 (enacted August 10, 1993).

Communications Act.³⁷ We seek comment on this proposal and invite commenters to offer alternate proposals. We note that in the *CMRS Second Report and Order* we presumptively classified PCS as CMRS, allowing each PCS provider to make a showing that one or more of its services are private by demonstrating that the service is not within the CMRS definition. We will continue to allow PCS licensees to overcome the CMRS presumption upon the proper demonstration that such services do not qualify as CMRS.³⁸

D. Universal Service Obligations.

21. The Commission has a number of universal service programs in place that seek to promote the availability of telephone service. Our Lifeline and Link Up programs provide assistance to low income and elderly residential subscribers,³⁹ and the Universal Service Fund program provides assistance to telephone companies operating in high cost areas.⁴⁰ These programs are administered by the National Exchange Carrier Association in cooperation with the states pursuant to Commission requirements. Should we ultimately adopt the rules we propose herein, CMRS licensees would be permitted to provide fixed wireless local loop services that in some respects could be similar to wireline telephone local exchange service.⁴¹ We seek comment on the extent to which any of our universal service programs should be modified to encompass, or impose obligations on, CMRS providers that offer the equivalent of local exchange service. We currently are examining universal service issues more broadly in separate proceedings, including the extent to which competitive local exchange service providers should be eligible for high cost support.⁴² As stated in those

³⁷ This is consistent with the approach we took in the *5 GHz Second Report and Order*. The record supports the view that the General Wireless Communications Service ("GWCS") most likely will be used for fixed services, and, accordingly, we adopted a presumption that GWCS licensees are fixed common carrier providers. The presumption can be overcome by the applicant. *5 GHz Second Report and Order*, 60 Fed. Reg. 40,712, 1995 WL 455952 (FCC) at ¶ 126 (Aug. 9, 1995).

³⁸ *CMRS Second Report and Order*, 9 FCC Rcd 1411, 1461.

³⁹ See 47 C.F.R. §§ 36.701-36.741.

⁴⁰ See 47 C.F.R. §§ 36.601-36.641.

⁴¹ We note that these CMRS providers are currently permitted to provide "mobile" local loop service. See ¶ 5, *supra*.

⁴² *In the Matter of Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board*, CC Docket No. 80-286, FCC No. 95-282, Notice of Proposed Rule Making and Notice of Inquiry 60 Fed. Reg. 46803 (Sept. 8, 1995) ("*Universal Service NOI*"); *In the Matter of Amendment of the Commission's Rules and Policies to Increase Subscriberhip and Usage of the Public Switched Network*, CC Docket No. 95-115, FCC 95-

proceedings, competition in local exchange service can be provided by different kinds of service providers, including cellular carriers, and our universal service programs should not favor a particular technology.⁴³ It is the Commission's preference, if feasible, to treat the universal service obligation issues raised in this proceeding in our decisions in the universal service proceedings.

E. Other Possible Fixed Services for CMRS.

22. In addition to proposing that CMRS providers be allowed to offer fixed as well as mobile wireless local loop, we seek comment on whether certain other fixed services should be allowed as well, or alternatively, whether CMRS providers should be allowed to provide any form of fixed service without restriction. We note that wireless local telephone service may not be the only technically and economically viable fixed service that could be accommodated on spectrum allocated to CMRS providers. Other potential wireless fixed services may include wireless Internet access, electronic funds transfers, point-of-purchase credit card verification, and remote monitoring. We seek comment on whether these potential uses are included or excluded in our proposed definition of wireless local loop. If excluded, should CMRS providers be allowed to provide these services in addition to wireless local loop? Are there other potential fixed services for which demand may exist? We seek comment on whether allowing CMRS providers to offer fixed wireless local loop but not other fixed services may unduly restrict the ability of carriers to develop wireless networks that otherwise would meet various needs of the consuming public.

23. Assuming that we allow CMRS providers to offer fixed services other than fixed wireless local loop, we also seek comment on whether there should be any restrictions on fixed use of this spectrum. Allowing CMRS spectrum to be used for certain fixed applications does not necessarily mean that all fixed services should be permitted. On the other hand, imposing restrictions on fixed use of this spectrum could impose a regulatory burden on carriers, increase the need for oversight of CMRS operations by the Commission to verify compliance, and might inhibit development of beneficial uses of the spectrum that we cannot anticipate. We note that, as a practical matter, technical factors may limit CMRS providers' ability to offer some fixed services on channels allocated for mobile telecommunications. There are many point-to-point operations which may not be feasible on a system designed for mobile use. Under what circumstances should we limit fixed services by CMRS providers in order to ensure technical compatibility?

24. We believe that our regulatory approach should allow licensees to adapt quickly to technological innovation and changing consumer demands. We also seek to ensure, however, that our approach to fixed use of this spectrum does not restrict the potential future

281, Notice of Proposed Rule Making, 60 Fed. Reg. 44296 (Aug. 25, 1995).

⁴³ *Universal Service NOI*, 60 Fed. Reg. 46803, 1995 WL 421922 (FCC) at ¶ 19.

growth of mobile services, particularly in light of the relatively limited portion of the spectrum in which mobile use is feasible as compared to the much larger amount compatible with fixed use. Recently, the National Telecommunications and Information Administration concluded that demand for mobile spectrum will substantially increase over the next decade, while demand for fixed use will decrease.⁴⁴ We solicit comment on these conclusions, including ways to ensure that spectrum is available to meet future mobile needs, and on the implications for our proposals herein. Parties identifying a potential deficiency for mobile services should also address whether that deficiency could be remedied by authorizing mobile services in spectrum currently designated for fixed services. Would the public benefit more from continuing to provide CMRS spectrum for principally mobile uses, from broadening our definition of permissible fixed services to include specific additional applications, or from permitting all fixed and mobile uses in the same spectrum?

25. To the extent that we permit CMRS providers to offer fixed services other than fixed wireless local loop, the issues raised in previous sections may also apply. We seek comment on those issues applicable to other fixed services. In particular, if we permit CMRS providers to offer fixed services in addition to fixed wireless local loop, we must determine how those services are to be regulated. We therefore ask for comment on the issues raised in paragraphs 19-20, *supra*.

F. Proposed Changes to Table of Frequency Allocations

26. In accordance with our proposals listed above, we propose to amend the domestic Table of Frequency Allocations as set forth in Appendix B.⁴⁵ Currently, wide-area SMR and cellular bands are allocated internationally to fixed and mobile services on a co-primary basis, but within the United States they are allocated only to land mobile services.⁴⁶ Therefore, we propose to amend the domestic Table of Frequency Allocations for the 806-821, 851-866, 896-901, and 935-940 MHz bands to permit them to make use of the allocations for both fixed and mobile services on a co-primary basis. The extent to which such allocations may be used will be determined by final decisions resulting from the service rules proposals in this proceeding. We request comment on this proposal.

IV. CONCLUSION

⁴⁴ See *U.S. National Spectrum Requirements, Projections and Trends*, U.S. Department of Commerce, National Telecommunications and Information Administration, March 1995 (NTIA Special Publication 94-31); *Land Mobile Spectrum Planning Options*, U.S. Department of Commerce, National Telecommunications and Information Administration, October 1995 (NTIA Special Publication 95-34).

⁴⁵ See 47 C.F.R. § 2.105.

⁴⁶ See 47 C.F.R. § 2.106.

27. The proposals set forth in this *Notice* expand the services available to consumers and the service options available to broadband CMRS providers developing competitive wireless offerings. The *Notice* proposes to allow all broadband CMRS providers the regulatory flexibility to offer fixed wireless local loop services, and seeks comment on whether the public interest is served by further expansion to include some or all other fixed services. Where fixed wireless local loop services are offered, we propose that CMRS regulation continue to apply if a carrier offers interconnected, for-profit mobile service to subscribers. Comment is sought on similar treatment for other categories of fixed services. Our purpose is to reduce any undue regulatory burdens on CMRS providers, as contemplated by the Communications Act, and to enhance competition. Our efforts should promote the development and deployment of new and innovative wireless telecommunications networks.

V. PROCEDURAL MATTERS

A. Regulatory Flexibility Act

28. As required by Section 603 of the Regulatory Flexibility Act, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the expected impact on small entities of the proposals suggested in this document. The IRFA is set forth in Appendix A. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments on the rest of the Notice of Proposed Rule Making, but they must have a separate and distinct heading designating them as responses to the IRFA. The Secretary shall send a copy of this Notice of Proposed Rule Making, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration in accordance with paragraph 603(a) of the Regulatory Flexibility Act. Pub. L. No. 96-354, 94 Stat. 1164, 5 U.S.C. § 601 *et seq.* (1981).

B. *Ex Parte* Rules -- Non-Restricted Proceeding

29. This is a non-restricted notice and comment rule making 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(a).

C. Comment Dates

30. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. §§ 1.415 and 1.419, interested parties may file comments by **February 26, 1996**; reply comments are due **March 18, 1996**. To file formally in this proceeding you must file an original and four copies of all comments and supporting comments. If you want each Commissioner to receive a personal copy of your comments, you must file an original plus nine copies. You should send your comments to Office of the Secretary, Federal Communications Commission, 1919 M Street, N.W., Washington, D.C. 20554. A copy of all comments should also be filed with the Commission's copy contractor,

ITS, Inc., 2100 M Street, N.W., Suite 140, (202) 857-3800. Comments will be available for public inspection during regular business hours in the Reference Center of the Federal Communications Commission, 2025 M Street, N.W., Room 5608, Washington, D.C. 20554.

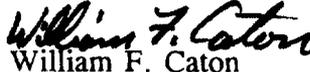
D. Ordering Clause

31. Authority for issuance of this Notice of Proposed Rule Making is contained in Sections 4(i), 4(j), 7(a), 303(b), 303(f), 303(g), 303(r), 309(j), and 332(c) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 154(j), 157(a), 303(b), 303(f), 303(g), 303(r), 309(j) and 332(c).

E. Contact Person

32. For further information concerning this proceeding, contact Sandra K. Danner (Acting Chief, Legal Branch, Commercial Wireless Division, Wireless Telecommunications Bureau) at (202) 418-0620.

FEDERAL COMMUNICATIONS COMMISSION



William F. Caton
Acting Secretary

APPENDIX A

INITIAL REGULATORY FLEXIBILITY ANALYSIS

Regulatory Flexibility Act

As required by Section 603 of the Regulatory Flexibility Act, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the expected impact on small entities of the policies and rules proposed in this *Notice of Proposed Rule Making* ("*Notice*"). Written public comments are requested on the IRFA. Comments must have a separate and distinct heading designating them as responses to the IRFA and must be filed by the comment deadlines provided above.

1. Reason for Action: This rule making proceeding was initiated to secure comment on proposals to expand the uses of available CMRS spectrum to provide greater flexibility to carriers, while at the same time promoting the public interest.

2. Objectives: The Commission proposes changes to its rules to facilitate the availability of frequencies for a wide variety of commercial uses, without the need for the Commission to hold new rule making proceedings or process multiple waiver requests as technology and marketplace demand change. At the same time, the action is intended to ensure that all spectrum licensed to mobile service entities is utilized to serve the public's communications needs.

3. Legal Basis: The proposed action is authorized under Sections 4(i), 4(j), 7(a), 303(b), 303(f), 303(g), 303(r), 309(j), and 332(c) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 154(j), 157(a), 303(b), 303(f), 303(g), 303(r), 309(j), and 332(c).

4. Reporting, Recordkeeping, and Other Compliance Requirements: The proposals under consideration in this *Notice* do not include the possibility of new reporting and recordkeeping requirements for small business entities.

5. Federal Rules Which Overlap, Duplicate or Conflict With These Rules: None.

6. Description, Potential Impact, and Number of Small Entities Involved:

The rule changes proposed in this proceeding could affect small businesses in competition with mobile service providers under the Commission's rules, regardless of whether each small business avails itself of the favorable rule changes. After evaluating the comments in this proceeding, the Commission will further examine the impact of any rule changes on small entities and set forth our findings in the Final Regulatory Flexibility Analysis.

7. Any Significant Alternative Minimizing the Impact on Small Entities

Consistent with the Stated Objectives: This *Notice* proposes operating changes to enhance the ability of commercial mobile radio service providers, including small commercial radio service providers, to serve a variety of consumer needs to advance economic opportunity and improve competition in the commercial mobile radio services. In addition, the *Notice* solicits comments on alternatives to the operating changes being proposed and additional operational safeguards which will need to be instituted.

Appendix B: Proposed Rules

Part 2 of title 47 of the Code of Federal Regulations are proposed to be amended as follows:

PART 2 -- FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

1. The authority citation for Part 2 continues to read as follows:

AUTHORITY: Sec. 4, 302, 303, and 307 of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154, 302, 303 and 307, unless otherwise noted.

2. Section 2.106, the Table of Frequency Allocations, is amended as follows:

- a. Columns 1 through 7 in the 470 - 960 MHz frequency bands are revised.
- b. The text of International Footnote Nos. 675, 676, 678, 697, and 703 in the listing of International Footnotes is revised.
- c. The text of International Footnote Nos. 682 and 708 is removed from the listing of International Footnotes.

§ 2.106 Table of Frequency Allocations

* * * * *

International table			United States table		FCC use designators	
Region 1 -- allocation MHz	Region 2 -- allocation MHz	Region 3 -- allocation MHz	Government	Non Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation MHz (4)	Allocation MHz (5)	(6)	(7)
.
470 - 512 BROADCASTING 676 677A 683 684 685 686 686A 687 689 693 694	470 - 512 BROADCASTING Fixed Mobile 674 675	470 - 512 FIXED MOBILE BROADCASTING 673 677 679	470 - 512	470 - 512 BROADCASTING LAND MOBILE N688 N6114 N6127 N6149	RADIO BROADCAST (TV) (73) PRIVATE LAND MOBILE (90) PUBLIC MOBILE (22) Auxiliary Broadcasting (74)	
512 - 585 BROADCASTING 676 677A 683 684 685 686 686A 687 689 693 694	512 - 585 BROADCASTING 678	512 - 585 FIXED MOBILE BROADCASTING 673 677 679	512 - 585	512 - 585 BROADCASTING N6149	RADIO BROADCAST (TV) (73) Auxiliary Broadcasting (74)	
585 - 608 BROADCASTING 676 677A 683 684 685 686 686A 687 689 693 694	585 - 608 BROADCASTING 678	585 - 608 FIXED MOBILE BROADCASTING RADIONAVIGATION 688 689 690	585 - 608	585 - 608 BROADCASTING N6149	RADIO BROADCAST (TV) (73) Auxiliary Broadcasting (74)	
608 - 610 BROADCASTING 676 677A 683 684 685 686 686A 687 689 693 694	608 - 610 RADIO ASTRONOMY Mobile-Satellite except aeronautical mobile-satellite (Earth-to-space)	608 - 610 FIXED MOBILE BROADCASTING RADIONAVIGATION 688 689 690	608 - 610 RADIO ASTRONOMY US74 US246	608 - 610 RADIO ASTRONOMY US74 US246		
610 - 614 BROADCASTING 676 677A 683 684 685 686 686A 687 689 693 694	610 - 614 RADIO ASTRONOMY Mobile-Satellite except aeronautical mobile-satellite (Earth-to-space)	610 - 614 FIXED MOBILE BROADCASTING 677 688 689 690 691 693 701	610 - 614 RADIO ASTRONOMY US74 US246	610 - 614 RADIO ASTRONOMY US74 US246		

International table			United States table		FCC use designators	
Region 1 allocation MHz	Region 2 allocation MHz	Region 3 allocation MHz	Government	Non-Government	Rule parts:	Special-use frequencies
(1)	(2)	(3)	Allocation MHz (4)	Allocation MHz (5)	(6)	(7)
614 - 790 BROADCASTING 676 677A 683 684 685 686 686A 687 689 693 694	614 - 790 BROADCASTING Fixed Mobile 675 692 692A 693	614 - 790 FIXED MOBILE BROADCASTING 677 688 689 690 691 693 701	614 - 790	614 - 790 BROADCASTING N630 N6128 N6149	RADIO BROADCAST (TV) (73) Auxiliary Broadcasting (74)	
790 - 806 FIXED BROADCASTING 694 695 695A 696 697 700B 702	790 - 806 BROADCASTING Fixed Mobile 675 692 692A 693	790 - 806 FIXED MOBILE BROADCASTING 677 688 689 690 691 693 701	790 - 806	790 - 806 BROADCASTING N630 N643 N6128 N6149	RADIO BROADCAST (TV) (73) Auxiliary Broadcasting (74)	
806 - 821 FIXED BROADCASTING 694 695 695A 696 697 700B 702	806 - 821 FIXED MOBILE BROADCASTING 692A 700 700A	806 - 821 FIXED MOBILE BROADCASTING 677 688 689 690 691 693 701	806 - 821	806 - 821 FIXED LAND MOBILE N630 N631 N643 N663 N6128	PRIVATE LAND MOBILE (90) PUBLIC MOBILE (22)	
821 - 824 FIXED BROADCASTING 694 695 695A 696 697 700B 702	821 - 824 FIXED MOBILE BROADCASTING 692A 700 700A	821 - 824 FIXED MOBILE BROADCASTING 677 688 689 690 691 693 701	821 - 824	821 - 824 LAND MOBILE N630 N643 N663 N6128	PRIVATE LAND MOBILE (90)	
824 - 849 FIXED BROADCASTING 694 695 695A 696 697 700B 702	824 - 849 FIXED MOBILE BROADCASTING 692A 700 700A	824 - 849 FIXED MOBILE BROADCASTING 677 688 689 690 691 693 701	824 - 849	824 - 849 LAND MOBILE N630 N643 N663 N6128 N6151	PUBLIC MOBILE (22)	

International table			United States table		FCC use designators	
Region 1 -- allocation MHz	Region 2 -- allocation MHz	Region 3 -- allocation MHz	Government	Non-Government	Rule parts	Special-use frequencies
(1)	(2)	(3)	Allocation MHz (4)	Allocation MHz (5)	(6)	(7)
849 - 851 FIXED BROADCASTING 894 895 895A 896 897 700B 702	849 - 851 FIXED MOBILE BROADCASTING 892A 700 700A	849 - 851 FIXED MOBILE BROADCASTING 877 888 889 890 891 893 701	849 - 851	849 - 851 AERONAUTICAL MOBILE N630 N663 N6128	PUBLIC MOBILE (22)	
851 - 862 FIXED BROADCASTING 894 895 895A 896 897 700B 702	851 - 862 FIXED MOBILE BROADCASTING 892A 700 700A	851 - 862 FIXED MOBILE BROADCASTING 877 888 889 890 891 893 701	851 - 862	851 - 862 FIXED LAND MOBILE N630 N631 N663 N6128	PRIVATE LAND MOBILE (90) PUBLIC MOBILE (22)	
862 - 866 FIXED MOBILE except aeronautical mobile BROADCASTING 703 700B 704	862 - 866 FIXED MOBILE BROADCASTING 892A 700 700A	862 - 866 FIXED MOBILE BROADCASTING 877 888 889 890 891 893 701	862 - 866	862 - 866 FIXED LAND MOBILE N630 N631 N663 N6128	PRIVATE LAND MOBILE (90) PUBLIC MOBILE (22)	
866 - 869 FIXED MOBILE except aeronautical mobile BROADCASTING 703 700B 704	866 - 869 FIXED MOBILE BROADCASTING 892A 700 700A	866 - 869 FIXED MOBILE BROADCASTING 877 888 889 890 891 893 701	866 - 869	866 - 869 LAND MOBILE N630 N663 N6128	PRIVATE LAND MOBILE (90)	

International table			United States table		FCC use designators	
Region 1 - allocation MHz	Region 2 allocation MHz	Region 3 allocation MHz	Government	Non-Government	Rule parts)	Special-use frequencies
(1)	(2)	(3)	Allocation MHz (4)	Allocation MHz (5)	(6)	(7)
868 - 890 FIXED MOBILE except aeronautical mobile BROADCASTING 703 700B 704	868 - 890 FIXED MOBILE BROADCASTING 892A 700 700A	868 - 890 FIXED MOBILE BROADCASTING 877 888 889 890 891 893 701	868 - 890	868 - 890 LAND MOBILE N630 N683 N6128 N6151	PUBLIC MOBILE (22)	
890 - 894 FIXED MOBILE except aeronautical mobile BROADCASTING 783 Radiolocation 704	890 - 894 FIXED MOBILE except aeronautical mobile Radiolocation 700A 704A 705	890 - 894 FIXED MOBILE BROADCASTING Radiolocation 708	890 - 894 US118 US288 62	890 - 894 LAND MOBILE US118 US288 N6151	PUBLIC MOBILE (22)	
894 - 896 FIXED MOBILE except aeronautical mobile BROADCASTING 703 Radiolocation 704	894 - 896 FIXED MOBILE except aeronautical mobile Radiolocation 700A 704A 705	894 - 896 FIXED MOBILE BROADCASTING Radiolocation 708	894 - 896 US118 US288 62	894 - 896 AERONAUTICAL MOBILE US118 US288	PUBLIC MOBILE (22)	
896 - 901 FIXED MOBILE except aeronautical mobile BROADCASTING 703 Radiolocation 704	896 - 901 FIXED MOBILE except aeronautical mobile Radiolocation 700A 704A 705	896 - 901 FIXED MOBILE BROADCASTING Radiolocation 708	896 - 901 US118 US288 62	896 - 901 FIXED LAND MOBILE US118 US288	PRIVATE LAND MOBILE (80) PUBLIC MOBILE (22)	

International table			United States table		FCC use designators	
Region 1 - allocation MHz	Region 2 - allocation MHz	Region 3 - allocation MHz	Government	Non-Government	Rule part(s)	Special use frequencies
(1)	(2)	(3)	Allocation MHz (4)	Allocation MHz (5)	(6)	(7)
901 - 902 FIXED MOBILE except aeronautical mobile BROADCASTING 703 Radiolocation 704	901 - 902 FIXED MOBILE except aeronautical mobile Radiolocation 700A 704A 705	901 - 902 FIXED MOBILE BROADCASTING Radiolocation 706	901 - 902 US116 US268 62	901 - 902 FIXED MOBILE US116 US268 US330	PERSONAL COMMUNICATIONS (24)	
902 - 928 FIXED MOBILE except aeronautical mobile BROADCASTING 703 Radiolocation 704	902 - 928 FIXED Amateur Mobile except aeronautical mobile Radiolocation 705 707 707A	902 - 928 FIXED MOBILE BROADCASTING Radiolocation 706	902 - 928 RADIOLOCATION 707 US215 US218 US267 US275 611 650	902 - 928 707 US215 US218 US267 US275	Amateur (97)	915 ± 13 MHz Industrial, scientific and medical frequency
928 - 929 FIXED MOBILE except aeronautical mobile BROADCASTING 703 Radiolocation 704	928 - 929 FIXED MOBILE except aeronautical mobile Radiolocation 705	928 - 929 FIXED MOBILE BROADCASTING Radiolocation 706	928 - 929 US116 US215 US268 62	928 - 929 FIXED US116 US215 US268 N6120	PRIVATE LAND MOBILE (90) PRIVATE OPERATIONAL FIXED MICROWAVE (94) PUBLIC MOBILE (22)	
929 - 930 FIXED MOBILE except aeronautical mobile BROADCASTING 703 Radiolocation 704	929 - 930 FIXED MOBILE except aeronautical mobile Radiolocation 705	929 - 930 FIXED MOBILE BROADCASTING Radiolocation 706	929 - 930 US116 US215 US268 62	929 - 930 LAND MOBILE US116 US215 US268 N6120	PRIVATE LAND MOBILE (90) PUBLIC MOBILE (22)	