

8. Foreign Ownership Restrictions

89. **Background.** In the *NPRM*, we proposed means for implementing the foreign ownership provisions set forth in Sections 310(a) and 310(b) of the Communications Act.¹⁹⁵ Section 310(a) prohibits any foreign government or representative from holding a station license. Section 310(b) prohibits certain defined foreign ownership interests in broadcast, common carrier, aeronautical en route or aeronautical fixed radio station licenses. One comment, supporting our proposal, was received on this portion of the *NPRM*.¹⁹⁶ In the *700 MHz First Report and Order* we concluded that Section 27.12 of the Commission's Rules, which implements Section 310 of the Act,¹⁹⁷ should apply to applicants for licenses in the 747-762 MHz and 777-792 MHz bands.¹⁹⁸ We determined that applicants requesting authorization for common carrier services will be subject to both Section 310(a) and Section 310(b). Nonbroadcast applicants requesting authorization only for non-common carrier services will be subject to Section 310(a) but not to the additional prohibitions of Section 310(b).¹⁹⁹ To enable the Commission to monitor effectively compliance with the alien ownership restrictions, we further determined that both common carriers and non-common carriers authorized in the 747-762 MHz and 777-792 MHz bands will be required to file changes in foreign ownership information to the extent required by Part 27 of our Rules.²⁰⁰

90. **Discussion.** We have determined that Section 27.12 of the Commission's Rules, should apply to applicants for Guard Band licenses. Because the Guard Band Manager is a non-common carrier, an applicant requesting authorization for a Guard Band Manager license will be subject to Section 310(a) but not to the additional prohibitions of Section 310(b). With respect to our alien ownership reporting requirements, we will require applicants for the Guard Band spectrum to file changes in foreign ownership information to the extent required by Part 27 of our Rules.

C. Operating Rules

91. In the *700 MHz First Report and Order*, we determined to subject licensees in the 747-762 MHz and 777-792 MHz bands to the Part 27 rules that govern operations, modified to accommodate the particular circumstances of the 700 MHz proceeding. We did not solicit comment on these operating rules in the *Public Notice* issued on January 7, 2000, seeking additional comments with respect to the Guard Bands. The following discussion focuses on operating rules for the 746-747 and 776-777 MHz and the 762-764 and 792-794 MHz Guard Bands.²⁰¹ Based on the comments we received in response to the *NPRM* and the analysis set forth in the *700 MHz First Report and Order* and summarized below, we believe that these rules are also appropriate for the Guard Bands.

¹⁹⁵ 47 U.S.C. §§ 310(a), 310(b). See *NPRM* at paras. 29-31.

¹⁹⁶ See *AirTouch Comments* at 25.

¹⁹⁷ 47 C.F.R. § 27.12. See also Section 27.302 of the Commission's Rules, 47 C.F.R. § 27.302.

¹⁹⁸ *700 MHz First Report and Order* at para. 63.

¹⁹⁹ *Id.* at para. 63.

²⁰⁰ *Id.* at para. 64.

²⁰¹ The discussion that follows does not apply to Guard Band Managers themselves, because they are not common carriers, but to entities operating in the Guard Bands who use the Guard Band Manager's spectrum to provide common carrier services.

1. Applicability of General Common Carrier Obligations; Forbearance

92. **Background.** In the *700 MHz First Report and Order*, we reviewed our prior decisions respecting forbearance from the requirements of the Communications Act and interpreted the potential effect of these decisions on fixed common carrier services provided on the 747-762 MHz and 777-792 MHz bands.²⁰² Pursuant to our prior exercise of authority under Section 332(c)(1)(A) to forbear for CMRS from certain of the obligations imposed on common carriers by Title II of the Communications Act, we determined that common carriers classified as CMRS, including those providing mobile services in the 747-762 MHz and 777-792 MHz bands, will not be required to file contracts of service, seek authority for interlocking directors,²⁰³ or submit applications for new facilities or discontinuance of existing facilities, and are prohibited from filing tariffs for interstate service to their customers or for interstate access service. We also determined that CMRS providers on this spectrum will be required to support service provider LNP by November 24, 2002, but will not be required to file tariffs for most international services or be subject to most of Section 226 of the Act, relating to telephone operator services. In addition, we determined that CMRS providers in the 747-762 and 777-792 bands will be subject to the Commission's complete detariffing of interstate, interexchange services offered by non-dominant interexchange carriers, to our elimination of Part 41 requirements applicable to franks, and to our elimination of the prior approval requirements for most *pro forma* transfer applications involving telecommunications carriers. We also addressed the requirements of Section 214(a) as they apply to licensees in the 747-762 MHz and 777-792 MHz bands that voluntarily discontinue, reduce, or impair service to a community or part of a community and adopted, in Section 27.66, the automatic grant provisions in amended Section 63.71 of the Commission's Rules,²⁰⁴ so as to ensure comparable regulatory treatment between wireline providers and fixed wireless providers operating in the 30 megahertz band.²⁰⁵

93. **Discussion.** We did not solicit comment on the forbearance issue in the *Public Notice* issued on January 7, 2000. Although we did solicit comments on forbearance in the *NPRM*, we received none. Based on our conclusions set forth in the *700 MHz First Report and Order*, and on our assessment that the decisions adopted there are appropriate for application to operations in the Guard Bands, we are adopting the forbearance measures discussed in the *700 MHz First Report and Order* with respect to tariff and contract filings, interlocking directors, new and discontinued facilities, service provider LNP, Section 226, franks, and *pro forma* transfer applications.

94. We also adopt the provisions of Section 27.66 for operations on the Guard Bands. Section 27.66 tracks the provisions of Section 63.71, requiring a common carrier voluntarily discontinuing, reducing or impairing service to provide notice to affected customers and the Commission and providing for the automatic grant of a fixed service common carrier's application for discontinuance after 31

²⁰² See *700 MHz Report and Order* at paras. 82-88.

²⁰³ We recently acted to forbear from requiring all common carriers to seek authority for interlocking directorates. Thus, common carriers that offer fixed services on the 746-764 MHz and 776-794 MHz bands are also exempt from this requirement. See 1998 Biennial Regulatory Review of Part 62 of the Commission's Rules, CC Docket No. 98-195, *Report and Order*, FCC 99-163, rel. Jul. 16, 1999.

²⁰⁴ 47 C.F.R. § 63.71.

²⁰⁵ See Section 27.66 of the Commission's Rules, 47 C.F.R. § 27.66.

days.²⁰⁶ In the case of Guard Band operations, this notice to the Commission must be provided by the Guard Band Manager. If a non-common carrier voluntarily discontinues, reduces, or impairs service, Section 27.66 requires the carrier to give written notice to the Commission within seven days. In the case of Guard Band operations, this notice to the Commission, as well, must be provided by the Guard Band Manager. A mere change in common carrier or non-common carrier status does not constitute a “discontinuance.” If fixed service common carrier operations are involuntarily discontinued, reduced, or impaired for a period exceeding 48 hours, the Guard Band Manager must promptly notify the Commission, in writing, of the reasons for the discontinuance, reduction, or impairment of service, including a statement indicating when normal service is to be resumed. When normal service is resumed, the Guard Band Manager must promptly notify the Commission. As we indicated in the *700 MHz First Report and Order*, we continue to invite suggestions on ways in which we can alleviate or streamline regulations that would otherwise be applicable to fixed services provided on this spectrum.

2. Equal Employment Opportunity

95. **Background.** In the *700 MHz First Report and Order*, we noted that neither Part 27 nor Parts 24 (PCS) and Part 26 (General Wireless Communications Service) include an explicit Equal Employment Opportunity (EEO) provision, but that specific EEO provisions exist in other parts of our Rules. We concluded, however, that all commercial mobile radio service (CMRS) providers are subject to the Commission’s EEO requirements,²⁰⁷ citing, in support, Parts 22 and 90 of our Rules,²⁰⁸ and that commercial mobile service providers are generally subject to the Commission’s common carrier EEO obligations.²⁰⁹ We declined to include specific EEO provisions in Part 27 for application to the 30 megahertz block.

96. **Discussion.** Because the Commission’s EEO Rules are service-specific, a Guard Band user’s EEO requirements will depend on the type of service it chooses to provide. In adopting rules for the 30 megahertz block, we allowed a licensee to self-characterize its regulatory status in its Form 601, consistent with the flexible approach that the Commission took in the *DBS NPRM*.²¹⁰ FCC Form 601, as amended, identifies five regulatory statuses: (a) common carrier, (b) non-common carrier, (c) private, internal communications, (d) broadcast, and (e) Band Manager. However, Guard Band Manager users do

²⁰⁶ Implementation of Section 402(B)(2)(A) of the Telecommunications Act of 1996, Petition for Forbearance of the Independent Telephone & Telecommunications Alliance, CC Docket No. 71-11, AAD File No. 98-43, *Report and Order*, FCC 99-104, rel. Jun 30, 1999.

²⁰⁷ See Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, GN Docket 93-252, *Third Report and Order*, 9 FCC Rcd 7988, 8097-8100, paras 231-237 (1994) (“*CMRS Third Report and Order*”).

²⁰⁸ Sections 22.321, 90.168 of the Commission’s Rules, 47 C.F.R. §§ 22.321, 90.168.

²⁰⁹ See 47 U.S.C. 332(c)(1)(A) (stating in relevant part “[a] person engaged in the provision of a service that is a commercial mobile service shall . . . be treated as a common carrier for purposes of this Act”). See also 47 C.F.R. § 1.815 (stating in relevant part “[e]ach common carrier licensee or permittee with 16 or more full time employees shall file with the Commission . . . an annual employment report”).

²¹⁰ The Commission in the *DBS NPRM* proposed that DBS (direct broadcast satellite) service licensees have the choice of providing service on a broadcast, common carrier, or non-broadcast, non-common carrier basis with an applicant’s self-characterization determinant of the applicable EEO rules. See Policies and Rules for the Direct Broadcast Satellite Service, IB Docket 98-21, *Notice of Proposed Rulemaking*, 13 FCC Rcd 6907, 6924-6925 (1998) (“*DBS NPRM*”).

not file FCC Form 601, because they are not licensees. Nevertheless, these operators will be subject to such EEO requirements as the nature of the services they provide dictates.

D. Other Technical Rules

97. **Background.** We have previously discussed the band plan and our technical and operational rules for the Guard Bands.²¹¹ We now address other technical rules applicable to the Guard Bands. As we concluded in the *700 MHz First Report and Order* for the 747-762 MHz and 777-792 MHz bands, all users of the Guard Bands, including entities who acquire their licenses through partitioning or disaggregation, will be subject to the general provisions of Part 27 relating to equipment authorization, frequency stability, antenna structures and air navigation, international coordination, environmental requirements, quiet zones, and disturbance of AM broadcast antenna patterns.²¹² In addition, we intend to apply to the Guard Bands the same technical rules for in-band interference control, RF safety and power limits, and television channels 65 and 67 that we applied to the 30 megahertz spectrum in the *700 MHz First Report and Order*. We did not solicit comment on these technical standards in the *Public Notice* issued on January 7, 2000, seeking additional comments with respect to the Guard Bands. Based on the comments we received in response to the *NPRM* and the analysis set forth in the *700 MHz First Report and Order* and summarized below, we believe that these standards are also appropriate for the Guard Bands.

98. **Discussion. In-Band Interference Control.** In the *700 MHz First Report and Order* we agreed with commenters that the field strength limit approach should be used to control co-channel interference.²¹³ We concluded that such an approach provides established, objective criteria for controlling in-band interference, and gives users the ability to construct and operate facilities in boundary areas so long as the limit is met, whereas a coordination approach could impose unnecessary coordination costs for facilities that are not likely to cause interference and could lead to possible anti-competitive activities. Because the types of services that will be provided in the 700 MHz band are likely to be similar to the types of services permitted in the 800 MHz EA-based and 900 MHz MTA-based bands,²¹⁴ in which we employ a 40 dBu/m field strength at the geographic border, and because of its proximity to these bands, we concluded in the *700 MHz First Report and Order* that the appropriate field strength for the control of in-band interference in the 30 megahertz spectrum is 40 dBu/m.²¹⁵ We adopt that standard here for the Guard Bands, as well. We believe that use of the field strength procedure and this criterion for the Guard Bands will satisfy the requirement in Section 337(d)(1) that the Commission establish

²¹¹ See Section III.A.1. "Band Plan: Protecting Public Safety Operations," *supra*.

²¹² See Sections 27.51, 27.54, 27.56, 27.57, 27.59, 27.61, 27.63 of the Commission's Rules, 47 C.F.R. §§ 27.51, 27.54, 27.56, 27.57, 27.59, 27.61, 27.63. See also *700 MHz First Report and Order* at para. 2.

²¹³ See *700 MHz First Report and Order* at paras. 96-97. See also AirTouch Comments at 29; SBC Comments at 4-5.

²¹⁴ See Sections 90.7, 90.689, and 90.671, 47 C.F.R. §§ 90.7, 90.689, and 90.671. See also Section 90.419(f), which permits SMR licensees to operate fixed services on a co-primary basis with their mobile operations. 47 C.F.R. § 90.419(f).

²¹⁵ See *700 MHz First Report and Order* at para. 97. The predicted 40 dBu/v field strength shall be calculated using Figure 10 of Section 73.699 of this chapter, with a correction factor for antenna height differential of -9 dB. 47 C.F.R. § 73.699, Fig. 10.

“interference limits at the boundaries of the spectrum block and service area.”²¹⁶ However, as with the 30 megahertz spectrum, we will permit users in adjoining areas to agree to alternate field strengths at their common border to provide users increased flexibility in implementing their systems without increasing the risk of harmful interference.

99. *RF Safety/Power Limits.* Section 27.52 of the Commission's Rules²¹⁷ subjects licensees and manufacturers to the RF radiation exposure requirements specified in Sections 1.1307(b), 2.1091, and 2.1093 of the Commission's Rules.²¹⁸ In the 700 MHz First Report and Order, we adopted a threshold of 1000 w ERP for categorical exclusion from routine evaluation for RF exposure for base and fixed stations.²¹⁹ We adopt this threshold for base and fixed stations in the Guard Bands, as well. As with the 30 megahertz block, the threshold for routine evaluation of mobile devices (as defined in Section 2.1091 of our Rules) for RF safety purposes will be 1.5 w or greater, in conformance with Section 2.1091. For portable devices in the Guard Bands (as defined in Section 2.1093 of our Rules), we adopt a maximum power limit of 3 w ERP with the provision that these devices be evaluated for RF exposure in compliance with Section 2.1093. As we have previously stated, we are providing guidance on acceptable methods of evaluating compliance with the Commission's RF exposure limits in OET Bulletin No. 65, which has replaced OST Bulletin No. 65.²²⁰

100. As we did for the 30 megahertz spectrum, we are adopting the following power limits for the Guard Bands: (1) for base stations and fixed stations operating in the 746-747 MHz and 762-764 MHz bands, an ERP no greater than 1,000 watts and an antenna height above average terrain (HAAT) no greater than 305 m;²²¹ (2) for mobile, fixed, and control stations operating in the 776-777 MHz and 792-794 MHz bands, an ERP no greater than 30 watts; and (3) for portable stations operating in the 776-777 MHz and 792-794 MHz bands, an ERP no greater than 3 watts. The 1000 w ERP power limit for base and fixed stations should enable satisfactory coverage for commercial systems operating in this band. The 30 w ERP power limit for mobile, fixed, and control stations is the power limit adopted for mobile and control station operations in the 700 MHz public safety band. The 3 w ERP power limit for portable stations is consistent with the power limit adopted for portables in the 700 MHz public safety band.

²¹⁶ 47 U.S.C. § 337(d)(1).

²¹⁷ 47 C.F.R. § 27.52.

²¹⁸ 47 C.F.R. §§ 1.1307(b), 2.1091, 2.1093. These rules identify services and devices for which an environmental evaluation must be performed. For fixed and base stations, criteria for requiring routine evaluation are given in Table 1 of Section 1.1307(b). Criteria for evaluation of mobile and portable devices are specified in Sections 2.1091 and 2.1093, respectively. Note that, in the case of fixed and base stations in this service, 1,000 watts ERP can also be expressed as the equivalent 1,640 watts EIRP. The RF radiation exposure limits are set forth in 47 C.F.R. §§ 1.1310, 2.1091, and 2.1093, as modified in Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, ET Docket No. 93-62, *Report and Order*, 11 FCC Rcd 15123 (1996); *First Memorandum Opinion and Order*, 11 FCC Rcd 17512 (1997); *Second Memorandum Opinion and Order*, 12 FCC Rcd 13494 (1997) (*RF Guidelines Second Reconsideration Order*).

²¹⁹ 700 MHz First Report and Order at para. 111. SBC supports this approach. SBC Comments at 5.

²²⁰ OET Bulletin No. 65 (Edition 97-01) was issued on August 25, 1997, and is available for downloading at the FCC Web Site: www.fcc.gov/oet/rfsafety. Copies of OET Bulletin No. 65 also may be obtained by calling the FCC RF Safety Line at (202) 418-2464.

²²¹ Antenna heights greater than 305 m HAAT are permitted in accordance with Table 1 in Section 27.50 of our Rules, as amended. 47 C.F.R. § 27.50.

101. *Special Considerations for Use of Channels 65 and 67.* The second harmonic transmissions²²² of Guard Band services that will be operating on TV channels 65 and 67 fall within a band used for radionavigation in the Global Navigation Satellite System (GNSS), which includes the Global Positioning System (GPS) at 1563.42-1587.42 MHz.²²³ In the *700 MHz First Report and Order* we committed to protecting this system and to ensuring that equipment operating in the 700 MHz band does not cause radio interference to the GNSS. Although NTIA supported the standard we proposed in the *NPRM*, other commenters argued that our proposed standards were either too restrictive to accommodate commercial development of the band or too lenient to protect GNSS.²²⁴ For the same reasons articulated in the *700 MHz First Report and Order* with respect to the 30 megahertz spectrum,²²⁵ we believe that the following OBE limits provide the appropriate balance between these two, opposing positions and adopt them here for all spurious emissions, including harmonics, that fall within the 1559-1610 frequency range, from equipment operating in the 746-747 MHz, 762-764 MHz, 776-777 MHz and 792-794 MHz Guard Bands: (1) for wideband emissions, -70 dBW/MHz equivalent isotropically radiated power (EIRP); and (2) for discrete emissions of less than 700 Hz bandwidth, an absolute EIRP limit of -80 dBW. Outside of emissions into the 1559-1610 MHz RNSS band, the OBE standards adopted in Section III.A.1 will apply.

E. Competitive Bidding

1. Statutory Requirements

102. **Background.** In the *NPRM*, we sought comment on whether the auction of the 746-764 MHz and 776-794 MHz bands may present a suitable context for combinatorial bidding.²²⁶ Section 3002 of the Balanced Budget Act directed the Commission to “provide for the design and conduct (for purposes of testing) of competitive bidding using a contingent combinatorial bidding system that permits prospective bidders to bid on combinations or groups of licenses in a single bid and to enter multiple

²²² Radio transmitters produce energy not only on the desired frequency (such as 793 MHz) but also lesser amounts of energy on multiples of the desired frequency, known as harmonics. In this example, the second harmonic (twice the desired frequency) would be 1586 MHz. Although most of the power generated is on the desired frequency, very sensitive receivers can detect the smaller amounts of power generated on the harmonic frequencies.

²²³ GNSS, as presently envisioned, will consist of the GPS and GLONASS systems that provide radionavigation satellite services (RNSS) worldwide. The GPS is the United States component of the GNSS. It uses the lower portion of the Radionavigation-Satellite Service (space-to-Earth) allocation from 1559-1610 MHz on a primary basis and is maintained by the United States Department of Defense. The other component of the GNSS is GLONASS, the Russian Federation Global Orbiting Navigation Satellite System, which will use the 1598-1605 MHz portion of that allocation (*i.e.*, the second harmonic frequencies of TV channels 68 and 69) when the system reaches its final frequency configuration after 2005.

²²⁴ AirTouch argues generally that the proposed OBE limits could negatively affect the production of portable units and the consequent availability of the commercial 700 MHz spectrum for public use. AirTouch Comments at 30. On the other hand, the U.S. GPS Industry Council (USGPS) asserts that the cumulative effect from all services in the band operating at proposed emission levels of -70/80 dBW/MHz would be devastating for critical safety-of-life GPS applications and that, absent case-by-case independent studies, the only appropriate wideband out-of-band emission threshold limit would be -100 dBW/MHz. USGPS Comments at 4; USGPS Reply at 8.

²²⁵ *700 MHz First Report and Order* at paras. 115-120.

²²⁶ *NPRM* at para. 82.

alternative bids within a single bidding round.”²²⁷ In addition, we sought comment on whether our statutory obligations prohibited public safety entities from participating in the auction of licenses for this spectrum.²²⁸ In the *700 MHz First Report and Order*, we concluded with respect to the 747-762 MHz and 777-792 MHz bands that we will not use combinatorial bidding procedures in light of the fact that this complex and untested auction design is still in development.²²⁹ We also decided that no entities would be barred from participating in the auction of licenses in the 747-762 MHz and 777-792 MHz bands.²³⁰

103. **Discussion.** In light of the accelerated schedule for auction of this spectrum,²³¹ we continue to believe that we should not use combinatorial bidding for the auction of licenses in the 700 MHz bands. Thus, for the reasons we stated with respect to the 747-762 MHz and 777-792 MHz bands, we will not use combinatorial bidding procedures for the 762-764 MHz/ 792-794 MHz band and the 746-747 MHz/ 776-777 MHz band. Consistent with our decision regarding the 747-762 MHz and 777-792 MHz bands, we will not prohibit any entities from participating in the auction of licenses for the Guard Bands.

2. Incorporation by Reference of Part 1 Standardized Auction Rules

104. **Background.** In the *NPRM*, we proposed to conduct the auction for initial licenses in the 746-764 MHz and 776-794 MHz bands in conformity with the general competitive bidding rules set forth in Part 1, Subpart Q, of the Commission's Rules, and substantially consistent with the bidding procedures that have been employed in previous auctions.²³² Specifically, we proposed to employ the Part 1 rules governing designated entities, application issues, payment issues, competitive bidding design, procedure and timing issues, and collusion issues.²³³ We further stated that these rules would be subject to any modifications that the Commission may adopt in the Part 1 proceeding. We sought comment on whether any of our Part 1 rules would be inappropriate in an auction of licenses for the 746-764 MHz and 776-794 MHz bands.²³⁴ No commenters oppose the use of the Part 1 standardized auction rules. In the *700 MHz First Report and Order*, we decided to use the competitive bidding procedures contained in Subpart Q of Part 1 of the Commission's Rules for the 747-762 MHz and 777-792 MHz bands, including any amendments adopted in the ongoing Part 1 proceeding.²³⁵

²²⁷ Codified at 47 U.S.C. § 309(j)(3).

²²⁸ *NPRM* at para. 81.

²²⁹ *700 MHz First Report and Order* at para. 124.

²³⁰ *Id.* at para. 49. Paragraph 135 of the *700 MHz First Report and Order* states that public safety entities as defined in Section 337(f) of the Act will not be permitted to participate in the auction of licenses for this spectrum. This statement, which is inconsistent with our decision announced in paragraph 49 of the *700 MHz First Report and Order* regarding open eligibility, is in error.

²³¹ *See supra* paragraph 3.

²³² *NPRM* at para. 83.

²³³ *Id.*

²³⁴ *Id.*

²³⁵ *700 MHz First Report and Order* at para. 129.

105. **Discussion.** Consistent with our decision in the *700 MHz First Report and Order*, we will also use the competitive bidding procedures contained in Subpart Q of Part 1 of the Commission's Rules for the Guard Bands, including any amendments adopted in the ongoing Part 1 proceeding.²³⁶ However, to facilitate the Commission's compliance with its statutory obligation to deposit the proceeds from the auction of the 30 megahertz spectrum block as well as the Guard Bands by September 30, 2000, we delegate to the Wireless Telecommunications Bureau authority to suspend our payment deadlines in Sections 1.2107(b) and 1.2109(a) of the Commission's Rules²³⁷ and require that winning bidders on all licenses in the 700 MHz bands pay the full balance of their winning bids upon submission of their long-form applications pursuant to Section 1.2107(c) of our rules.²³⁸

3. Small Business Definitions

106. **Background.** In the *NPRM*, we proposed to define a small business as any entity with average annual gross revenues for the three preceding years not in excess of \$40 million, and a very small business as an entity with average annual gross revenues for the three preceding years not in excess of \$15 million, for the 746-764 MHz and 776-794 MHz bands.²³⁹ We sought comment on these definitions as they relate to the size of the geographic area to be covered and the spectrum allocated to each license.²⁴⁰ We also sought comment on whether the proposed designated entity provisions would be sufficient to promote participation by businesses owned by minorities and by women, and participation by rural telephone companies.²⁴¹

107. In the *700 MHz First Report and Order* we adopted our proposal to define a small business as an entity with average annual gross revenues for the preceding three years not exceeding \$40 million, and a very small business as an entity with average annual gross revenues for the preceding three years not exceeding \$15 million.²⁴² We adopted a 15 percent bidding credit for small businesses and a 25 percent bidding credit for very small businesses, consistent with the levels adopted in the Part 1 proceeding,²⁴³ and we decided not to adopt special preferences for entities owned by minorities or women.²⁴⁴ We also concluded that in calculating gross revenues for purposes of small business eligibility, we will attribute the gross revenues of the applicant, its controlling interests and its

²³⁶ The most recent comprehensive order in this proceeding was the *Third Report and Order and Second Further Notice of Proposed Rule Making*. See Amendment of Part 1 of the Commission's Rules – Competitive Bidding, WT Docket No. 97-82, Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use, 4660-4685 MHz, ET Docket No. 94-32, *Third Report and Order and Second Further Notice of Proposed Rule Making*, 13 FCC Rcd 374 (1997) (“*Part 1 Third Report and Order*” and “*Part 1 Second Further Notice*”), recon. pending.

²³⁷ 47 C.F.R. §§ 1.2107(b), 1.2109(a).

²³⁸ 47 C.F.R. §§ 1.2107(c).

²³⁹ *NPRM* at paras. 85-86.

²⁴⁰ *Id.* at para. 87.

²⁴¹ *Id.*

²⁴² *700 MHz First Report and Order* at para. 133.

²⁴³ *Id.* at para. 134. See *Part 1 Third Report and Order*, 13 FCC Rcd at 403-04, paras. 47-48.

²⁴⁴ *700 MHz First Report and Order* at para. 136.

affiliates.²⁴⁵

108. **Discussion.** We will adopt for the Guard Bands the same definitions of small and very small businesses that we adopted for the 747-762 MHz and 777-792 MHz bands.²⁴⁶ We believe these two definitions will provide various types of entities seeking to become Guard Band Managers with opportunities to participate in the auction of licenses for this spectrum. In calculating gross revenues for purposes of small business eligibility, we will attribute the gross revenues of the applicant, its controlling interests and its affiliates. As noted in the *700 MHz First Report and Order*, this approach is consistent with our proposal in the *Part 1 Second Further Notice*,²⁴⁷ and is similar to the attribution rules we have employed for the recent LMDS, 800 MHz SMR, and LMS auction proceedings.²⁴⁸

109. For the auction of licenses for the Guard Bands we will also adopt tiered bidding credits for small and very small businesses, consistent with the levels adopted in the Part 1 proceeding.²⁴⁹ Accordingly, small businesses will receive a 15 percent bidding credit.²⁵⁰ Very small businesses will receive a 25 percent bidding credit.²⁵¹ As noted in the *700 MHz First Report and Order*, we believe that this approach will provide adequate opportunities for small businesses of varying sizes to participate in spectrum auctions.²⁵²

110. We will not adopt special preferences for entities owned by minorities or women.²⁵³ As we concluded in the *700 MHz First Report and Order*, in the absence of quantifiable evidence or data to support race- or gender-based auction provisions, we do not have an adequate record to support such

²⁴⁵ *Id.*

²⁴⁶ For the 746-764 MHz and 776-794 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain Small Business Administration approval before adopting small business size standards. See *Consolidated Appropriations*, Appendix E, Section 213(a)(4)(B). See also 145 Cong. Rec. at H12493, Nov. 17, 1999.

²⁴⁷ See *Part 1 Second Further Notice*, 13 FCC Rcd at 477-78, paras. 185-87.

²⁴⁸ See Amendment of 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, 12692-93 (1997); 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, *Second Report and Order*, 12 FCC Rcd 19079, 19169 (1997); Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, PR Docket No. 93-61, *Second Report and Order*, 13 FCC Rcd 15182, 15194 (1997).

²⁴⁹ See *Part 1 Third Report and Order*, 13 FCC Rcd at 403-04, paras. 47-48.

²⁵⁰ See 47 C.F.R. § 1.2110(e)(2)(iii).

²⁵¹ See 47 C.F.R. § 1.2110(e)(2)(ii). Bidding credits for small businesses are not cumulative; very small businesses may not accumulate a 15 percent credit and a 25 percent credit.

²⁵² *700 MHz First Report and Order* at para. 134. See also *Part 1 Third Report and Order*, 13 FCC Rcd at 403-04, para. 47.

²⁵³ See Alaskan Choice Comments at 4 (suggesting preferences for minorities, women, and underserved communities).

special provisions at this time under the current standards of judicial review.²⁵⁴ We believe the bidding credits we adopt here for small businesses will further Congress's objective of disseminating licenses among a wide variety of applicants because many minority- and women-owned entities, as well as rural telephone companies, are small businesses and will therefore qualify for these special provisions. Finally, we decline to adopt KM's suggestion that we provide bidding credits to LPTV licensees that have been or will be displaced by a DTV station, or APCO's suggestion that we establish "auction credits" similar to small business bidding credits for state and local governments seeking spectrum for public safety communications.²⁵⁵ Such entities have not established a record that they need bidding credits in order to be able to compete in the auction.

IV. PROTECTION OF TELEVISION SERVICES

111. **Background.** In the *DTV Sixth Report and Order*,²⁵⁶ we stated that all analog TV and DTV operations in the 746-806 MHz band would be fully protected during the DTV transition period. In the *Reallocation Notice*, we noted that new licensees in the band will have to protect both analog TV and DTV operations from interference.²⁵⁷ Noting that land mobile and TV stations have successfully shared the 470-512 MHz band (TV Channels 14-20) in 11 major metropolitan areas of the United States, we decided in the *Public Safety Spectrum Report and Order* to continue to administer protection criteria for these services in the 764-776 MHz and 794-806 MHz public safety bands in the same manner.²⁵⁸ In the 470-512 MHz band, we relied on minimum separation distances based on the various heights and powers of the land mobile stations to prevent harmful interference.²⁵⁹ In the *700 MHz First Report and Order* we decided to apply the factors and considerations examined in the *Public Safety Spectrum Report and Order* for the protection of TV and DTV operations to the 747-762 MHz and 777-792 MHz bands.²⁶⁰ We also indicated our intention to consider specific regulatory requests needed to implement voluntary

²⁵⁴ See *Adarand Constructors, Inc. v. Peña*, 515 U.S. 200 (1995); *United States v. Virginia*, 518 U.S. 515 (1996).

²⁵⁵ KM Comments at 4-5; APCO Comments at 6-7.

²⁵⁶ See *Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, MM Docket No. 87-268, *Sixth Report and Order*, 12 FCC Rcd 14588, 14626-27 (para. 80)(1997)(*"DTV Sixth Report and Order"*).

²⁵⁷ *Reallocation of Television Channels 60-69, the 746-806 MHz Band*, ET Docket No. 97-157, *Notice of Proposed Rule Making*, 12 FCC Rcd 14141, 14148, para. 17 (1997)(*"Reallocation Notice"*).

²⁵⁸ *The Development of Operational, Technical and Spectrum Requirements For Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010*, WT Docket No. 96-86, *First Report and Order and Third Notice of Proposed Rulemaking*, 14 FCC Rcd 152, 220-227, paras. 150-164 (1998) (*"Public Safety Spectrum Report and Order"*).

²⁵⁹ See *Further Sharing of the UHF Television Band by Private Land Mobile Radio Services*, General Docket No. 85-172, *Notice of Proposed Rulemaking*, 101 FCC 2d 852, 865 (1985), *proceeding suspended*, 2 FCC Rcd 6441 (1987).

²⁶⁰ *700 MHz First Report and Order* at para. 139. Certain of our decisions with regard to TV protection in the *Public Safety Spectrum Report and Order* are the subject of reconsideration. To the extent that our actions with regard to that reconsideration result in subsequent changes to the rules adopted in that proceeding, those changes may be reflected as they apply or are relevant.

agreements between incumbent broadcast licensees and new licensees in the bands.²⁶¹

112. **Discussion.** We are extending the protection criteria applicable to 30 megahertz spectrum operations to operations in the Guard Bands. Section 27.60, as amended, requires 700 MHz commercial operations, including those in the Guard bands, to comply with the provisions of Section 90.545 of our Rules.²⁶² For example, an entity operating on any portion of the 746-747 MHz Guard Band, which is contained in Channel 60, must provide co-channel protection to Channel 60, and adjacent channel protection to Channels 59 and 61.

113. The Congressional plan set forth in Sections 336 and 337 of the Act and in the 1997 Budget Act is to transition this spectrum from its current use for broadcast services to commercial use and public safety services.²⁶³ Congress also has directed us to auction the 36 MHz spectrum for commercial use six years before the relocation deadline for incumbent broadcasters in this spectrum, while adopting interference limits and other technical restrictions necessary to protect full-service analog television service during the transition to DTV.²⁶⁴ The extended license term specified for 700 MHz commercial services on these bands reflects, in part, the recognition that incumbent television licensees on these frequencies may, under the statutory provision for DTV transition, continue to broadcast for some years, delaying the time when new users have uncompromised use of the spectrum resource.²⁶⁵

114. In addition, we indicated in the *700 MHz First Report and Order* that we will consider specific regulatory requests needed to implement voluntary agreements reached between incumbent licensees and new users in these bands.²⁶⁶ We extend that policy here to Guard Band operations. Therefore, in considering whether the public interest would be served by approving specific requests, we would, for example, consider the benefits to consumers of the provision of new wireless services as well as whether such agreements would help clear spectrum for public safety use in these bands or could result in the provision of new wireless service in rural and other relatively underserved communities. On the other hand, we would also consider loss of service to the broadcast community of the licensee. For example, we would consider the availability of the licensee's former analog programming within the service area, through simulcast of that programming on the licensee's DTV channel or distribution of the programming on cable or DBS, or the availability of similar broadcast services within the service area, (e.g., whether the lost service is the only network service, the only source for local service, or the only

²⁶¹ *Id.* at para. 145.

²⁶² The provisions of Section 90.545 of our Rules have been incorporated into Section 27.60. 47 C.F.R. § 27.60. In addition, fixed station operations in the 746-747 MHz and 762-764 MHz bands must comply with the relevant provisions for "base stations" in Section 90.309 of our Rules, and fixed station operations in the 776-777 MHz and 792-794 MHz bands must comply with the relevant provisions for "control stations" in Section 90.309 of our Rules. 47 C.F.R. § 90.309.

²⁶³ 47 U.S.C. §§ 336-337.

²⁶⁴ *See Consolidated Appropriations*, Appendix E, Sec. 213. *See also* 145 Cong. Rec. at H12493-94, (Nov. 17, 1999).

²⁶⁵ *See* Section III.B.4., *supra*.

²⁶⁶ In the *700 MHz First Report and Order* we noted that the joint license structure adopted for incumbent television operators potentially complicates the negotiation process. *See id.* at para. 144 and *DTV Proceeding*, 12 FCC Rcd 12834, paras. 57-60.

source for otherwise unique broadcast service).

V. CANADIAN AND MEXICAN BORDER REGIONS

115. There are currently separate agreements with Canada and Mexico covering TV broadcast use of the UHF 470-806 MHz band. Such agreements do not reflect the additional use or services being adopted in the *700 MHz First Report and Order* and this item. While the Commission staff has been involved in discussions with both countries regarding coordination or interference criteria for the use of these bands in the border areas for the additional services, agreements have yet to be reached.²⁶⁷ Therefore, until such agreements have been finalized, we believe it necessary, as we did in the *700 MHz First Report and Order* for the 30 megahertz block, to adopt certain interim requirements for operations in the Guard Bands along the Canada and Mexico borders.²⁶⁸ Accordingly, licenses issued for these bands within 120 km of the borders will be subject to whatever future agreements the United States develops with these two countries. In that the existing agreements for the protection of TV stations in these countries are still in effect and must be recognized until they are replaced or modified to reflect the new uses, licenses in the border areas will be granted on the condition that harmful interference may not be caused to, but must be accepted from, UHF TV transmitters in Canada and Mexico. Furthermore, modifications may be necessary to comply with whatever provisions are ultimately specified in future agreements with Canada and Mexico regarding the use of these bands. Pending further negotiations, we also adopt the protection criteria described herein for domestic TV and DTV stations as interim criteria for Canadian and Mexican TV and DTV stations.²⁶⁹

VI. PROCEDURAL MATTERS AND ORDERING CLAUSES²⁷⁰

116. Authority. This action is taken pursuant to Sections 1, 4(i), 7, 10, 201, 202, 208, 214, 301, 303, 307, 308, 309(j), 309(k), 310, 311, 324, 332 and 336 and 337 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 157, 160, 201, 202, 208, 214, 301, 303, 307, 308, 309(j), 309(k), 310, 311, 324, 332, and 336, and 337 and the Consolidated Appropriations Act, 2000, Pub. Law 106-113, 113 Stat. 1501, Section 213.

117. Accordingly, IT IS ORDERED that Part 27 of the Commission's Rules IS AMENDED to establish service rules for the 746-747/ 776-777 MHz and 762-764/ 792-794 MHz bands, as set forth in Appendix C, and that, in accordance with Section 213 of the Consolidated Appropriations Act, 2000, Pub. Law 106-113, 113 Stat. 1501 (1999), these Rules shall be effective immediately upon publication in the Federal Register.

118. IT IS FURTHER ORDERED that, pursuant to 47 U.S.C. § 155(c), the Chief of the

²⁶⁷ Both Canada and Mexico have been notified that the Commission has changed the allocation of these bands, and the Commission has discussed with them the possibility of mutually compatible spectrum use in all three countries.

²⁶⁸ *700 MHz First Report and Order* at para. 146. Many agreements have used the geographic distance of 120 km from the border as the coordination or effected area. We will apply this criterion until agreements are reached.

²⁶⁹ See Section IV, *supra*.

²⁷⁰ Pursuant to Pub. Law 106-113, 113 Stat. 1501, Appendix E, Section 213, Chapter 6 of title 5, United States Code, section 3 of the Small Business Act (15 U.S.C. § 632), and sections 3507 and 3512 of title 44, United States Code, shall not apply to this proceeding.

Wireless Telecommunications Bureau IS GRANTED DELEGATED AUTHORITY to implement and modify auction procedures in the Wireless Communications Services, including the general design and timing of the auction, the number and grouping of authorizations to be offered in any particular auction, the manner of submitting bids, the amount of any minimum opening bids and bid increments, activity and stopping rules, and application and payment requirements, including the amount of upfront payments, and to announce such procedures by Public Notice.

119. IT IS FURTHER ORDERED that, pursuant to 47 U.S.C. § 155(c), the Chief of the Wireless Telecommunications Bureau IS GRANTED DELEGATED AUTHORITY to suspend the payment deadlines in Sections 1.2107(b) and 1.2109(a) of the Commission's Rules, 47 C.F.R. §§ 1.2107(b), 1.2109(a), and require that winning bidders on all licenses in the 746-764 and 776-794 MHz bands pay the full balance of their winning bids upon submission of their long-form applications pursuant to Section 1.2107(c) of the Commission's Rules, 47 C.F.R. § 1.2107(c).

FEDERAL COMMUNICATIONS COMMISSION



Magalie Roman Salas
Secretary

APPENDIX A**LIST OF PARTIES RESPONDING TO JANUARY 7, 2000 PUBLIC NOTICE****A. Comments**

American Association of State Highway and Transportation Officials (AASHTO)
Association for Maximum Service Television, Inc. (MSTV)
Association of Public Safety Communications Officials-International, Inc. (APCO)
Com-Net Ericsson Critical Radio Systems
Dataradio Corporation
E.F. Johnson Company
FreeSpace Communications
Kenwood Communications Corporation
International Association of Chiefs of Police (IACP)
Industrial Telecommunications Association, Inc. (ITA)
Land Mobile Communications Council (LMCC)
Major Cities Police Chiefs Association (MCPCA)
Major County Sheriff's Association, Inc. (MCSA)
Microsoft Corporation
Motorola Inc
Personal Communications Industry Association, Inc. (PCIA)
SBC Communications, Inc.
Southern LINC
State of Florida Department of Management Services
Washington County Consolidated Communications Agency (WCCCA)

B. Ex Parte Communications and/or Late Filed Comments

City of Milwaukee Police Department
FreeSpace Communications
Industrial Telecommunications Association, Inc. (ITA)
International Association of Chiefs of Police (IACP)
International Municipal Signal Association and International Association of Fire Chiefs, Inc. (IMSA)
Kenwood Communications Corporation
Major County Sheriff's Association, Inc. (MCSA)
Microsoft Corporation
Motorola, Inc.
National Telecommunications and Information Administration (NTIA)

APPENDIX B**LIST OF PARTIES RESPONDING TO NOTICE OF PROPOSED RULEMAKING****A. Comments**

AirTouch Communications, Inc. (AirTouch)
Alaskan Choice Television (Alaskan Choice)
American Mobile Telecommunications Association, Inc. (AMTA)
ArrayComm, Inc.
Association for Maximum Service Television, Inc. (MSTV)
Association of America's Public Television Stations (APTS)
Association of Public-Safety Communications Officials-International, Inc. (APCO)
BayCom Inc.
Bruggeman, Jeffrey A.
Consumer Electronics Manufacturers Association (CEMA)
Harris Corporation (Harris)
Houston 2-Way Radio (H2)
Industrial Telecommunications Association, Inc. (ITA)
Intek Global Corp.
International Association of Fire Chiefs, Inc. and International Municipal Signal Association
(IAFC/IMSA)
Jones, Charles
Kemp, Edwin, F.
KM Communications, Inc.
Microradio Empowerment Coalition
MRFAC, Inc.
Motorola, Inc.
National Translator Association (NTA)
Northside Plumbing Supply
Palletized Trucking, Inc.
Personal Communications Industry Association, Inc. (PCIA)
Rand McNally & Company
Region 20
Rural Telecommunications Group (RTG)
SBC Communications, Inc. (SBC)
Shure Brothers Inc.
Southern Communications, Inc. (Southern)
Telecommunications Industry Assn. (TIA)
U S WEST, Inc.
U.S. GPS Industry Council (GPS Council)
United Telecom Council (UTC)
Utility Communications, Inc.
Walt Disney Company (TWDC)

B. Reply Comments

AirTouch Communications, Inc.
American Mobile Telecommunications Association, Inc.
ArrayComm, Inc.
Association of American Railroads

Association for Maximum Service Television, Inc. (MSTV)
Association of Public-Safety Communications Officials (APCO)
AT&T Corp.
Bell Atlantic Mobile, Inc. (BAM)
Clearwire Technologies, Inc. (Clearwire)
Consumer Electronics Manufacturers Association (CEMA)
DDI Pocket, Inc.
Fox Ridge Communications, Inc.
Harris Corporation (Harris)
Industrial Telecommunications Association, Inc. (ITA)
International. Inc.
KM Communications, Inc. (KM)
Metricom, Inc.
Motorola, Inc.
National Association of Broadcasters (NAB)
Nextel Communications, Inc. (Nextel)
New York State Technology Enterprise Corporation (NYSTEC)
Public Safety Wireless Network Program (PSWNP)
SBC Communications, Inc. (SBC)
Southern Communications Services, Inc. (Southern)
USA Digital Radio, Inc. (USADR)
US GPS Industry Council (GPS Council)
U S WEST, Inc.
Walt Disney Company (TWDC)

C. Ex Parte Communications and/or Late Filed Comments

Advanced Electronics
Alaska Digital, LLC
All-Com Technologies, Inc.
Allcom Wireless, Inc.

American Mobile Telecommunications Association
APCO International
Arizona Department of Public Safety
ArrayComm, Inc.
Association for Maximum Service Television, Inc.
Associations of Public-Safety Communications Officials-International
AT & T Wireless
Atlanta Communications Company
Bair's Electronics Services, Inc.
BayCom, Inc.
BCI Communications
BearCom
Bell Atlantic
Bell Atlantic Mobile
Blair Communications, Inc.
Boeing Company
Burlington Northern Santa Fe Railway Company
Burst Networks, Inc.

Bytel, Inc.
Canadian Pacific Railway
Cellular Telecommunications Industry Assn. (CTIA)
Centre Communications
Cisco Systems, Inc. (Cisco)
City of Chicago, Office of Emergency Communications-Mr. Donatelli
City of Chicago, Office of Emergency Communications-Mr. Nowakowski
City of El Cajon
City of Fort Lauderdale
City of Mishawaka
City of San Diego
Coastal Electronics, Inc.
Cole, Gordon
Coloma Wireless, LLC
Commercial Communications, LLC
Communications & Electronics, Inc.
Communications Electronics, Inc.
Communications Engineering Services
Consumer Electronics Manufacturers Association
Coosa Valley Communications
County of Charleston
CTI Products, Inc.
DATARADIO
Dataradio Group of Companies
Day Wireless Systems
Delta Radio Systems, Inc.
DFW Communications
Dorler Communications Co.
Douglas County Sheriff
EMCO, Inc.
Express Radio, Inc.
Ford Communications
FreeSpace Communications (FreeSpace)
Greer Communications, Inc.
Hankey's Radio, Inc.
Hasty's Communication East, Inc.
Houston 2-Way Radio
Industrial Communications & Electronics LLP
Industrial Telecommunications Association, Inc.
Intel Government Affairs
Jackson Communications, Inc.
Kay Communications, Inc.
KM Communications, Inc.
Leap Wireless International Inc.
Lucent Technologies (Lucent)
Macon Communications, Inc.
Maryland State Police
Mashantucket Pequot Tribal Nation
Maximum Service Television, Inc.
McCord Communications

McDermott Communications Co., Inc.
Metropolitan Communications
Microradio Empowerment Coalition
Microsoft Corporation (Microsoft)
Mobex Communications, Inc.
Mobilcomm
Mobile Communications of Gwinnett, Inc.
Motorola, Inc.
MRFAC, Inc.
National Coordination Committee on Public Safety Spectrum (NCC)
National Telecommunications and Information Administration (NTIA)
Nex-Tech
Nextel Communications, Inc. (Nextel)
North Carolina Smartnet Users Network
North County Dispatch J.P.A.
Office of Emergency Management
Ohio Valley 2-Way Radio, Inc.
P&R Communications, Inc.
PCT Communications
Personal Communications Industry Association (PCIA)
Platte Valley Communications
PSINet
Puget Sound Instrument
QualComm Inc.
Regional Communications, Inc.
Rep. Bliley
Rural Telecommunications Group (RTG)
S&P Communications
Savannah Communications
SBC Wireless, Inc.
Senator Dorgan et al.
Sierra Electronics
Southern Communications Services, Inc. (Southern)
Spectrum
Spectrum Exchange
Supreme Radio Communications, Inc.
Talladega County Emergency Management Agency
TBA Communications, Inc.
Telcordia Technologies, Inc. (Telcordia)
Telephone and Data Systems, Inc. et al. (TDS)
Teletouch Communications, Inc.
Texas Communications
Two Way Radio Services, Inc.
U.S. West Wireless, LLC
Union Pacific Railroad Company
University of Maryland
Walt Disney Company
Western Communications
Whitten's 2-Way Services
Yahoo! Inc.

Appendix C

FINAL RULES

For those reasons discussed in the accompanying Order, part 27 of Title 47 of the Code of Federal Regulations is amended as follows:

1. The authority citation for part 27 continues to read as follows:

Authority: 47 U.S.C. 154, 301, 302, 303, 307, 309, 332, 336, and 337 unless otherwise noted.

PART 27 – MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES

2. The table of contents for part 27 is amended by revising the headings for subpart F and Sec. 27.501 and by adding a new subpart G as follows:

* * * * *

**Subpart F -- Competitive Bidding Procedures for the
746-764 MHz and 776-794 MHz Bands**

Sec.

27.501 746-764 MHz and 776-794 MHz bands subject to competitive bidding.

* * * * *

Subpart G – Guard Band Managers

Sec.

27.601 Guard Band Manager authority and coordination requirements.

27.602 Guard Band Manager agreements.

27.603 Access to Guard Band Manager's spectrum.

27.604 Limitation on licenses won at auction.

27.605 Geographic partitioning and spectrum disaggregation.

27.606 Complaints against Guard Band Managers.

27.607 Performance requirements and annual reporting requirement.

3. Section 27.1 is amended in paragraph (b)(2) to read as follows:

§ 27.1 Basis and purpose.

* * * * *

(b) ***

* * * * *

(2) 746-764 MHz and 776-794 MHz.

* * * * *

4. Section 27.2 is amended in paragraph (a), by inserting the phrase "Except as provided in paragraph (b) of this section" at the beginning thereof, by redesignating paragraph (b) as paragraph (c), and by inserting a new paragraph (b) to read as follows:

§ 27.2 Permissible Communications.

* * * * *

(b) 746-747 MHz, 776-777 MHz, 762-764 MHz and 792-794 MHz bands. Operators in the 746-747 MHz, 776-777 MHz, 762-764 MHz and 792-794 MHz bands may not employ a cellular system architecture. A cellular system architecture is defined, for purposes of this part, as one that consists of many small areas or cells (segmented from a larger geographic service area), each of which uses its own base station, to enable frequencies to be reused at relatively short distances.

* * * * *

5. Section 27.4 is amended by adding definitions of "Affiliate," and "Guard Band Manager" in alphabetical order to read as follows:

§ 27.4 Terms and definitions.

* * * * *

Affiliate. The definition of the term *affiliate* shall be the same as in Part 1, Section 1.2110(b)(4) of this chapter.

* * * * *

Guard Band Manager. The term *Guard Band Manager* refers to a commercial licensee in the 746-747 MHz, 762-764 MHz, 776-777 MHz, and 792-794 MHz bands that functions solely as a spectrum broker by subdividing its licensed spectrum and making it available to system operators or directly to end users for fixed or mobile communications consistent with Commission Rules. A *Guard Band Manager* is directly responsible for any interference or misuse of its licensed frequency arising from its use by such non-licensed entities.

* * * * *

6. Section 27.5 is amended in paragraphs (b)(1) and (b)(2) by inserting the phrase "solely to Guard Band Managers" after the word "assignment" in each paragraph.

7. Section 27.6 is amended by revising paragraph (b)(1) to read as follows:

§ 27.6 Service areas.

* * * * *

(b) ***

(1) Service areas for Block A in the 746-747 and 776-777 MHz bands and Block B in the 762-764 and 792-794 MHz bands are based on Major Economic Areas (MEAs), as defined in paragraph (a)(1) of this section.

* * * * *

8. Section 27.10 is amended by inserting the following introductory language at the beginning thereof

§ 27.10 Regulatory status. Except with respect to Guard Band Manager licenses, which are subject to subpart G of this part, the following rules apply concerning the regulatory status of licensees in the frequency bands specified in § 27.5 of this part.

* * * * *

9. Section 27.12 is amended by inserting the phrase "Except as provided in § 27.604 of this part," at the beginning thereof.

10. Section 27.13 is amended by revising paragraph (b) to read as follows:

§ 27.13 License Period.

* * * * *

(b) 746-764 MHz and 776-794 MHz bands. Initial authorizations for the 746-764 MHz and 776-794 MHz bands, will extend until January 1, 2015, except that a Part 27 licensee commencing broadcast services, will be required to seek renewal of its license for such services at the termination of the eight-year term following commencement of such operations.

11. Section 27.50 is amended by redesignating paragraph (a) as paragraph (b) and paragraph (b) as paragraph (a), and is further amended in newly-designated paragraph (b) by deleting the phrase "747-762 MHz and 777-792 MHz" and substituting the phrase "746-764 MHz and 776-794 MHz" in lieu thereof, in newly-designated paragraph (b)(1) and the heading for Table 1 following paragraph (c) by deleting the phrase "747-762 MHz" and substituting the phrase "746-764 MHz" in lieu thereof, and in newly-designated paragraphs (b)(2) and (b)(3) by deleting the phrase "777-792 MHz" and substituting the phrase "776-794 MHz" in lieu thereof.

12. Section 27.53 is amended by redesignating paragraphs (e) and (f) as paragraphs (f) and (g), respectively, and is further amended in newly-designated paragraph (f) by deleting the phrase "747-762 MHz and 777-792 MHz bands" and substituting the phrase "746-764 MHz and 776-794 MHz bands" in lieu thereof, and by adding a new paragraph (e) to read as follows:

§ 27.53 Emission limits.

* * * * *

(e) For operations in the 746-747 MHz, 762-764 MHz, 776-777 MHz, and 792-794 MHz bands, transmitters must meet the following emission limitations:

(1) The adjacent channel coupled power (ACCP) requirements for transmitters designed for various channel sizes are shown in the following tables. Mobile station requirements apply to handheld, car mounted and control station units. The tables specify a maximum value for the ACCP relative to maximum output power as a function of the displacement from the channel center frequency. In addition, the ACCP for a mobile station transmitter at the specified frequency displacement must not exceed the value shown in the tables. For transmitters that have power control, the latter ACCP requirement can be met at maximum power reduction. In the following charts, "(s)" means that a swept measurement is to be used.

6.25 kHz Mobile Transmitter ACCP Requirements

Offset from Center Frequency (kHz)	Measurement Bandwidth (kHz)	Maximum ACCP Relative (dBc)	Maximum ACCP Absolute (dBm)
6.25	6.25	-40	not specified
12.50	6.25	-60	-45
18.75	6.25	-60	-45
25.00	6.25	-65	-50
37.50	25.00	-65	-50
62.50	25.00	-65	-50
87.50	25.00	-65	-50
150.00	100.00	-65	-50
250.00	100.00	-65	-50
>400 to receive band	30 (s)	-75	-55
In the receive band	30 (s)	-100	-70

12.5 kHz Mobile Transmitter ACCP Requirements

Offset from Center Frequency (kHz)	Measurement Bandwidth (kHz)	Maximum ACCP Relative (dBc)	Maximum ACCP Absolute (dBm)
9.375	6.25	-40	not specified
15.625	6.25	-60	-45
21.875	6.25	-60	-45
37.500	25.00	-65	-50
62.500	25.00	-65	-50
87.500	25.00	-65	-50
150.000	100.00	-65	-50
250.000	100.00	-65	-50
>400 to receive band	30 (s)	-75	-55
In the receive band	30 (s)	-100	-70

25 kHz Mobile Transmitter ACCP Requirements

Offset from Center Frequency (kHz)	Measurement Bandwidth (kHz)	Maximum ACCP Relative (dBc)	Maximum ACCP Absolute (dBm)
15.625	6.25	-40	not specified
21.875	6.25	-60	-45
37.500	25.00	-65	-50
62.500	25.00	-65	-50
87.500	25.00	-65	-50
150.000	100.00	-65	-50
250.000	100.00	-65	-50
>400 to receive band	30 (s)	-75	-55
In the receive band	30 (s)	-100	-70

150 kHz Mobile Transmitter ACCP Requirements

Offset from Center Frequency (kHz)	Measurement Bandwidth (kHz)	Maximum ACCP Relative (dBc)	Maximum ACCP Absolute (dBm)
100	50	-40	not specified
200	50	-50	-35
300	50	-50	-35
400	50	-50	-35
600 to 1000	30 (s)	-60	-45
1000 to receive band	30 (s)	-70	-55
In the receive band	30 (s)	-100	-75

6.25 kHz Base Transmitter ACCP Requirements

Offset from Center Frequency (kHz)	Measurement Bandwidth (kHz)	Maximum ACCP (dBc)
6.25	6.25	-40
12.50	6.25	-60
18.75	6.25	-60
25.00	6.25	-65
37.50	25.00	-65
62.50	25.00	-65
87.50	25.00	-65
150.00	100.00	-65
250.00	100.00	-65
>400 to receive band	30 (s)	-80 (continues @-6dB/oct)
In the receive band	30 (s)	-100

12.5 kHz Base Transmitter ACCP Requirements

Offset from Center Frequency (kHz)	Measurement Bandwidth (kHz)	Maximum ACCP (dBc)
9.375	6.25	-40
15.625	6.25	-60
21.875	6.25	-60
37.500	25.00	-60
62.500	25.00	-65
87.500	25.00	-65
150.000	100.00	-65
250.000	100.00	-65
>400 to receive band	30 (s)	-80 (continues @-6dB/oct)
In the receive band	30 (s)	-100

25 kHz Base Transmitter ACCP Requirements

Offset from Center Frequency (kHz)	Measurement Bandwidth (kHz)	Maximum ACCP (dBc)
15.625	6.25	-40
21.875	6.25	-60
37.500	25.00	-60
62.500	25.00	-65
87.500	25.00	-65
150.000	100.00	-65
250.000	100.00	-65
>400 to receive band	30 (s)	-80 (continues @-6dB/oct)
In the receive band	30 (s)	-100

150 kHz Base Transmitter ACCP Requirements

Offset from Center Frequency (kHz)	Measurement Bandwidth (kHz)	Maximum ACCP (dBc)
100	50	-40
200	50	-50
300	50	-55
400	50	-60
600 to 1000	30 (s)	-65
1000 to receive band	30 (s)	-75 (continues @-6dB/oct)
In the receive band	30 (s)	-100

(2) *ACCP measurement procedure.* The following procedures are to be followed for making ACCP transmitter measurements. For time division multiple access (TDMA) systems, the measurements are to be made under TDMA operation only during time slots when the transmitter is on. All measurements must be made at the input to the transmitter's antenna. Measurement bandwidth used below implies an instrument that measures the power in many narrow bandwidths (e.g. 300 Hz) and integrates these powers across a larger band to determine power in the measurement bandwidth.

(i) *Setting reference level:* Using a spectrum analyzer capable of ACCP measurements, set the measurement bandwidth to the channel size. For example, for a 6.25 kHz transmitter, set the measurement bandwidth to 6.25 kHz; for a 150 kHz transmitter, set the measurement bandwidth to 150 kHz. Set the frequency offset of the measurement bandwidth to zero and adjust the center frequency of the spectrum analyzer to give the power level in the measurement bandwidth. Record this power level in dBm as the "reference power level".

(ii) *Measuring the power level at frequency offsets <600kHz:* Using a spectrum analyzer capable of ACCP measurements, set the measurement bandwidth as shown in the tables above. Measure the ACCP in dBm. These measurements should be made at maximum power. Calculate the coupled power by subtracting the measurements made in this step from the reference power measured in the previous step. The absolute ACCP values must be less than the values given in the table for each condition above.

(iii) *Measuring the power level at frequency offsets >600kHz:* Set a spectrum analyzer to 30 kHz resolution bandwidth, 1 MHz video bandwidth and sample mode detection. Sweep +/- 6 MHz from the carrier frequency. Set the reference level to the RMS value of the transmitter power and note the absolute power. The response at frequencies greater than 600 kHz must be less than the values in the tables above.

(iv) *Upper Power Limit Measurement:* The absolute coupled power in dBm measured above must be compared to the table entry for each given frequency offset. For those mobile stations with power control, these measurements should be repeated with power control at maximum power reduction. The absolute ACCP at maximum power reduction must be less than the values in the tables above.

(3) *Out-of-band emission limit.* On any frequency outside of the frequency ranges covered by the ACCP tables in this section, the power of any emission must be reduced below the unmodulated carrier power (P) by at least $43 + 10 \log (P)$ dB.

(4) *Authorized bandwidth.* Provided that the ACCP requirements of this section are met, applicants may request any authorized bandwidth that does not exceed the channel size.

* * * * *

13. Section 27.55 is amended in paragraph (b) by deleting the phrase "747-762 and 777-792 MHz bands" and substituting the phrase "746-764 and 776-794 MHz bands" in lieu thereof.

14. Section 27.60 is amended in the introductory text and in paragraph (b) by deleting the phrase "747-762 MHz and 777-792 MHz" and substituting the phrase "746-764 MHz and 776-794 MHz" in lieu thereof and is further amended in paragraph (b) by deleting the phrase "747-762 MHz or 777-792 MHz" and substituting the phrase "746-764 MHz or 776-794 MHz" in lieu thereof, is amended in paragraph (b)(2)(i) by deleting the phrase "747-762 MHz" and substituting the phrase "746-764 MHz" in lieu thereof, and in paragraph (b)(2)(ii) by deleting the phrase "777-792 MHz" and substituting the phrase "776-794 MHz" in lieu thereof.

15. Section 27.66 is amended by revising paragraphs (a), (b), and (c) to read as follows:

§ 27.66 Discontinuance, reduction, or impairment of service.

(a) Involuntary act. If the service provided by a fixed common carrier licensee, or a fixed common carrier operating on spectrum licensed to a Guard Band Manager, is involuntarily discontinued, reduced, or impaired for a period exceeding 48 hours, the licensee must promptly notify the Commission, in writing, as to the reasons for discontinuance, reduction, or impairment of service, including a statement when normal service is to be resumed. When normal service is resumed, the licensee must promptly notify the Commission.

(b) Voluntary act by common carrier. If a fixed common carrier licensee, or a fixed common carrier operating on spectrum licensed to a Guard Band Manager, voluntarily discontinues, reduces, or impairs service to a community or part of a community, it must obtain prior authorization as provided under § 63.71 of this chapter. An application will be granted within 30 days after filing if no objections have been received.

(c) Voluntary act by non-common carrier. If a fixed non-common carrier licensee, or a fixed non-common carrier operating on spectrum licensed to a Guard Band Manager, voluntarily discontinues, reduces, or impairs service to a community or part of a community, it must give written notice to the Commission within seven days.

16. The heading and the text of Section 27.501 are amended by deleting the phrase “747-762 MHz and 777-792 MHz” and substituting the phrase “746-764 MHz and 776-794 MHz” in lieu thereof.

17. A new subpart G is added to read as follows:

Subpart G – Guard Band Managers

§ 27.601 Guard Band Manager authority and coordination requirements.

(a) Subject to the provisions of § 27.2(b) of this part and paragraphs (c) and (d) of this section, a Guard Band Manager may allow a spectrum user, pursuant to a written agreement, to construct and operate stations at any available site within the licensed area and on any channel for which the Guard Band Manager is licensed, provided such stations comply with Commission Rules and coordination requirements.

(b) Subject to the provisions of § 27.2(b) of this part and paragraphs (c) and (d) of this section, a Guard Band Manager may allow a spectrum user, pursuant to a written agreement, to delete, move or change the operating parameters of any of the user’s stations that are covered under the Guard Band Manager’s license without prior Commission approval, provided such stations comply with Commission Rules and coordination requirements.

(c)(1) A Guard Band Manager must file a separate station application and obtain all appropriate Commission approvals or authorizations prior to construction of stations that

(i) require submission of an Environmental Assessment under Part 1, Section 1.1307;

(ii) require international coordination; or

(iii) would affect the radio frequency quiet zones described in Part 90, Section 90.177.

(2) Prior to construction of a station, a Guard Band Manager must register with the Commission any station antenna structure for which notification to the Federal Aviation Administration is required by Part 17 of this chapter.

(3) It is the Guard Band Manager's responsibility to determine whether a referral to the Commission is needed for any individual station constructed in the Guard Band Manager's license area.

(d)(1) A Guard Band Manager must notify Commission-recognized public safety frequency coordinators for the 700 MHz public safety band and adjacent-area Guard Band Managers within one business day after the Guard Band Manager has

- (i) coordinated a new station or modification of an existing station; or
- (ii) filed an application for an individual station license with the Commission.

(2) The notification required in subparagraph (1) must include, at a minimum,

- (i) the frequency or frequencies coordinated;
- (ii) antenna location and height;
- (iii) type of emission;
- (iv) effective radiated power;
- (v) a description of the service area, date of coordination, and user name or, in the alternative, a description of the type of operation.

(3) In the event a Guard Band Manager partitions its service area or disaggregates its spectrum, it is required to submit the notification required in subparagraph (1) to other Guard Band Managers in the same geographic area.

(4) Entities coordinated by a Guard Band Manager must wait at least 10 business days after the notification required in subparagraph (1) before operating under the Guard Band Manager's license;

(5) If, in the event of harmful interference, the Guard Band Manager is unable to resolve the problem by mutually satisfactory arrangements, the Commission may impose restrictions on the operations of any of the parties involved.

(e) Where a deletion, move or change authorized under paragraph (b) of this section constitutes a discontinuance, reduction, or impairment of service under § 27.66 of this part, or where discontinuance, reduction or impairment of service results from an involuntary act subject to § 27.66(a), the Guard Band Manager must comply with the notification and authorization requirements set forth in that section.

§ 27.602 Guard Band Manager agreements.

Guard Band Managers are required to enter into written agreements regarding the use of their licensed spectrum by others, subject to the following conditions:

(a) The duration of spectrum user agreements may not extend beyond the term of the Guard Band Manager's FCC license.

(b) The spectrum user agreement must specify in detail the operating parameters of the spectrum user's system, including power, maximum antenna heights, frequencies of operation, base station location(s), area(s) of operation, and other parameters specified in Commission rules for the use of spectrum identified in § 27.5(b)(1) and (b)(2) of this part.

(c) The spectrum user agreement must require the spectrum user to use Commission-approved equipment where appropriate and to complete post-construction proofs of system performance prior to system activation.

(d) The spectrum user must agree to operate its system in compliance with all technical specifications for the system contained in the agreement and agree to cooperate fully with any investigation or inquiry conducted by either the Commission or the Guard Band Manager.

(e) The spectrum user must agree to comply with all applicable Commission rules, and the spectrum user must accept Commission oversight and enforcement.

(f) The spectrum user agreement must stipulate that if the Guard Band Manager determines that there is an ongoing violation of the Commission's rules or that the spectrum user's system is causing harmful interference, the Guard Band Manager shall have the right to suspend or terminate operation of the spectrum user's system. The spectrum user agreement must stipulate that if the spectrum user refuses to comply with a suspension or termination order, the Guard Band Manager will be free to use all legal means necessary to enforce the order.

(g) The spectrum user agreement may not impose unduly restrictive requirements on use of the licensed frequencies, including any requirement that is not reasonably related to the efficient management of the spectrum licensed to the Guard Band Manager.

(h) Guard Band Managers shall maintain their written agreements with spectrum users at their principal place of business, and retain such records for at least two years after the date such agreements expire. Such records shall be kept current and be made available upon request for inspection by the Commission or its representatives.

§ 27.603 Access to the Guard Band Manager's spectrum.

(a) A Guard Band Manager may not engage in unjust or unreasonable discrimination among spectrum users and may not unreasonably deny prospective spectrum users access to the Guard Band Manager's licensed spectrum.

(b) A Guard Band Manager may not impose unduly restrictive requirements on use of its licensed

frequencies, including any requirement that is not reasonably related to the efficient management of the spectrum licensed to the Guard Band Manager.

(c) A Guard Band Manager may lease a reasonable amount of its spectrum to an affiliate for the affiliate's own internal use or for the affiliate's provision of commercial or private radio services. However, a Guard Band Manager must lease the predominant amount of its spectrum to non-affiliates.

§ 27.604 Limitation on licenses won at auction.

(a) For the first auction of licenses in Blocks A and B, as defined in § 27.5 of this part, no applicant may be deemed the winning bidder of both a Block A and a Block B license in a single geographic service area.

(b) For purposes of paragraph (a) of this section, licenses will be deemed to be won by the same bidder if an entity that wins one license at the auction is an affiliate of any other entity that wins a license at the auction.

§ 27.605 Geographic partitioning and spectrum disaggregation.

An entity that acquires a portion of a Guard Band Manager's geographic area or spectrum subject to a geographic partitioning or spectrum disaggregation agreement under § 27.15 of this part must function as a Guard Band Manager and is subject to the obligations and restrictions on Guard Band Manager licenses set forth in this subpart.

§ 27.606 Complaints against Guard Band Managers.

Guard Band Managers are expected to resolve disputes with their customers or disputes between multiple customers of the Guard Band Manager in the same manner that the parties would resolve other commercial disputes arising out of the spectrum user agreement. The Commission will also consider complaints filed against a Guard Band Manager for violating the Communications Act or the Commission's regulations or policies. When there is a dispute between a Guard Band Manager, or its spectrum user, and a non-contracting party, and the Guard Band Manager is unable or unwilling to resolve such dispute in a timely fashion, the non-contracting party may file a complaint with the Commission pursuant to § 1.41 of this chapter.

§ 27.607 Performance requirements and annual reporting requirement.

(a) Guard Band Managers are subject to the performance requirements specified in § 27.14(a) of this part.

(b) Guard Band Managers are required to file an annual report providing the Commission with information about the manner in which their spectrum is being utilized. Such reports shall be filed with the Commission on a calendar year basis, no later than the March 1 following the close of each calendar year, unless another filing date is specified by Public Notice.

(c) Guard Band Managers must, at a minimum, include the following information in their annual reports:
(1) The total number of spectrum users and the number of those users that are affiliates of the Guard

Band Manager;

(2) The amount of the Guard Band Manager's spectrum being used by the Guard Band Manager's affiliates in any part of the licensed service area;

(3) The amount of Guard Band Manager's spectrum being used pursuant to agreements with unaffiliated third parties;

(4) The nature of the spectrum use of the Guard Band Manager's customers; and

(5) The length of the term of each spectrum user agreement.

(d) The specific information that Guard Band Managers will provide and the procedures that they will follow in submitting their annual reports will be announced in a Public Notice issued by the Wireless Telecommunications Bureau.

Separate Statement of Commissioner Susan Ness

Re: In the Matter of Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, Second Report and Order, WT Docket No. 99-168

With this Order, we conclude our adoption of rules for licensing new commercial services in the spectrum currently utilized by television channels 60 to 69. In the near future, we will auction a total of 36 MHz in the 746-806 MHz band. In our *First Report and Order* in this proceeding, I strongly supported our actions unleashing 30 MHz of prime spectrum for a variety of wireless services that could include fixed and mobile Internet access. Our decision balanced the needs of a number of competing demands for spectrum, including those seeking to provide wireless alternatives to the local loop, fixed high-speed Internet connections and advanced mobile services. We provided for an extremely flexible allocation of expansive regional 10 MHz and 20 MHz spectrum blocks with the capability for paired channels; the marketplace will determine which services will be provided to the public. From this action will flow the deployment of new advance wireless services that will benefit the public.

In our *First Report and Order*, I also supported the designation of 6 MHz of spectrum to serve as guard bands to ensure that the public safety service licensees that will operate in the 700 MHz band will "operate free of interference from any new commercial licensees." While I strongly considered a flexible allocation of 36 MHz relying on technical constraints alone to protect public safety operations, I concluded with my colleagues that the Congressional directive to maximize our protection of public safety communications was best served by establishing guard bands. Today I also support the strict technical rules, coordination requirements, and architectural restrictions we adopt to further ensure, as Congress mandated, that public safety organizations using frequencies adjacent to commercial operations in this band do not suffer harmful interference to their critical communications services. In supporting these restrictions, my objective, as it was in establishing the guard bands, is to protect public safety operations from interference. I have listened carefully to the representatives of public safety organizations across this country, including APCO and the Independent Association of Police Chiefs, and reviewed the conclusions of our staff regarding potential interference to public safety operations. While it is a difficult balance, I believe the Commission and its staff have made the wisest choices to protect public safety. I support the proposed restrictions because I conclude that we should not take any unnecessary chance that adjacent commercial operations will interfere with the efforts of those who place their lives on the line to protect and secure the public safety.

**SEPARATE STATEMENT OF COMMISSIONER HAROLD FURCHTGOTT-ROTH,
APPROVING IN PART, DISSENTING IN PART**

Re: Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, WT Docket No. 99-168, Second Report and Order (rel. March 9, 2000)

Although I am pleased that we have brought the guard band licensing debate to an end, I am disappointed that the majority has taken such a restrictive and regulatory approach to these bands. As I stated in my Separate Statement in the First Report and Order, I would have taken a different tack.¹

I have concerns about two portions of today's decision: (1) prohibiting cellular architecture in the guard bands, and (2) restricting licensees to "guard band managers." In my view, both of these measures will have the effect of limiting competition and innovation – with few, if any, corresponding public benefits.

Congress mandated that the Commission adopt policies that protect adjacent public safety licensees.² However, interference protection is, by its nature, a balancing act. Barring any licensees from the guard bands would be the most definitive way to ensure Congress' goal of protecting public safety licensees. Yet, even if we took that sweeping step, the public safety licensees are still likely to experience some interference from the "main bands" – the licensees in the 30 MHz of spectrum addressed in the First Report and Order. Thus, the real challenge presented here is to protect public safety in the most reasonable way possible, consistent with our other policies.

In this Order, we have adopted detailed interference limits to achieve this goal. In my view, such interference protections coupled with vigorous enforcement and harsh penalties for noncompliance is generally sufficient to protect adjoining licensees. This Order supplements that protection with a frequency coordination requirement. Without passing on its ultimate necessity, it is clear that frequency coordination provides another layer of protection for public safety. In addition to interference limits and frequency coordination, the majority has also adopted a ban on cellular-style architecture in the guard bands.

In my view, the cellular architecture bar is intrusive, unnecessary and needlessly limits the range of services available to the American people. The ban creates Commission obligations to define and enforce this policy. I certainly do not look forward to resource-consuming Commission debates over which architectures are sufficiently "cellular" to be barred.

Apparently it is the majority's view that cellular architecture makes it too difficult to protect public safety. Yet this view fails to account for technological innovation that may indeed produce sufficient protection for public safety licensees. Perversely, today's Order discourages interference improvements by cellular systems by barring them completely from the guard bands. The cellular prohibition also effectively limits the types of services that can be provided in these bands. In the end, I would have set strict interference limits and enforced them – without any of the limitation on the system's architecture.

¹ See Separate Statement of Commissioner Harold Furchtgott-Roth in Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, WT Docket No. 99-168, First Report and Order (rel. Jan. 7, 2000).

² 47 U.S.C. § 337 (d)(1).

I also must dissent from the majority's decision to limit guard band license eligibility to new government-conceived entities known as "guard band managers." As I have stated before, I have no inherent objection to the band manager concept. In my view, if someone makes a business decision to create such an operation, the Commission should not stand in the way. However, I am disturbed by the majority's mandate that anyone interested in participating in the guard band auction must be a "guard band manager."

A true "test" of the band manager concept would have permitted band managers to bid against other business models.³ The market would have subsequently sorted out the winners and losers. Then we might have had some legitimate data to access what the FCC can do to allow the markets to function more freely. Instead of that potentially useful test, we have fixed the result – band managers will win because they are only ones permitted to play. Limiting an auction to one type of licensee shortchanges the public and the marketplace.

The guard band manager set-aside also places the FCC in the role of dictating a business plan. "Guard band managers" must, among other requirements, lease all of their spectrum to third parties, must set up a separate affiliate in order to provide service directly to the public, and must limit their affiliates' use of the spectrum.⁴ This is not a free market or even a test. It is government implicitly asserting that it knows better than the marketplace. I cannot join such an "old school" regulatory approach.

The intrusiveness of this decision is readily demonstrated by an example. XYZ Corp. wishes to participate in the auction in order to offer a commercial radio service directly to the public. XYZ believes it needs an entire 2 MHz license throughout its service area to do so. In my view, a pro-market, deregulatory FCC should not stand in the way. The majority, however, has decided that XYZ Corp. needs a little government "help" with its business plan. So, under today's decision, XYZ Corp. must become a guard band manager to participate in the auction – thus being forced to enter the business of leasing spectrum to third parties in order to use this spectrum commercially. However, as a guard band manager it cannot offer service directly to the public; nor can it use all of a 2 MHz license throughout the service area for its own operations. Instead, XYZ Corp. must set up an affiliate, ABC Corp., which is permitted to provide service directly to the public. However, in order to comply with our 50% affiliate use restriction, ABC can only use 1 MHz of the 2 MHz won by XYZ at auction.⁵

The affiliate requirement makes no sense to me. Other than an employment program for corporate lawyers, there is no public benefit that I can discern from requiring a band manager to set up an affiliate in order to provide service to the public. As a "commercial" band under the statute, I see no reason why guard band licensees should be limited in their ability to offer services directly to the public.

Similarly the 50% affiliate use restriction seems unnecessary. The majority seems to believe that businesses will not use their spectrum resources in the most efficient way possible in order to maximize profits. This suspicion has led the majority to adopt rules designed to mandate efficiency by forcing

³ The majority invokes the "test" rationale as a basis for limiting affiliated use to less than 50% and prohibiting each guard band licensee from obtaining both licenses in one region during the first bidding cycle. See ¶¶ 59, 62.

⁴ See Order at ¶¶ 29, 59.

⁵ The majority has mandated that a guard band manager licensee lease a "predominant" amount of its spectrum to unaffiliated third parties. Order at ¶ 59. It is difficult to discern the exact parameters of such a requirement. As a proxy for the purposes of this statement, I have simplified this requirement into a 50% cap on affiliated uses. Presumably that represents at least one viable interpretation of this requirement.

guard band licensees to make a certain percentage of their purchased spectrum available to unaffiliated third parties. Unlike the majority, I trust the market to create the most efficient outcome. In my view, if a licensee makes the most profit by leasing all of its spectrum to third parties, they will do so. If, alternatively, a company can make the greatest profits by using the spectrum in its own business endeavors, then so be it. I place no normative judgment on either outcome. Therefore I would have eliminated the 50% affiliate use restriction as well.

Some have argued that the set aside for "guard band managers" is warranted by our spectrum management obligations and the need to protect public safety. I cannot agree. Guard band managers are not inherently more effective at protecting public safety. Public safety protection is afforded by our interference rules, not by the nature of the licensee's business plan. Any licensee willing to adhere to our rules would create at least the same level of interference protection to public safety.⁶ As for spectral efficiency, band managers do not have any unique advantage that I can discern. Any licensee (band manager or not) can engage in site-by-site licensing. Similarly licensees are free to aggregate and disaggregate as they wish. Regardless of the majority's aspirations, there is no guarantee that a band manager will make spectrum available to a critical mass of third parties.⁷ For example, the majority's rules would allow a band manager to lease 100% of its spectrum to one unaffiliated entity. Yet the same rules would bar one guard band licensee from using the spectrum entirely for its own business. Thus, it's hard to see how the "guard band licensee" restriction can be viewed as more effective at getting spectrum into multiple entities' hands. It is my expectation that licensees, like all businesses, will manage their resources efficiently and obey our interference rules. It is not clear to me that a government-mandated business model is necessary or helpful in creating those results.

Based on the foregoing, I respectfully dissent from those portions of the order barring cellular-style architecture and restricting licensees to guard band managers.

⁶ For example, our frequency coordinators provide many of the same interference protections as guard band managers.

⁷ See Order ¶¶ 32-34

SEPARATE STATEMENT OF COMMISSIONER MICHAEL POWELL,
DISSENTING IN PART

Re: Service Rules for the 746-764 and 776-794MHz Bands, and Revisions to Part 27 of the Commission's Rules (Guard Bands), WT Docket No. 99-168, *Second Report and Order*

I support the decision in this *Second Report and Order* to establish firm technical rules for the "Guard Bands" in the 700 MHz band designed to protect very important public safety radio operations in the adjacent bands. The additional time spent in seeking comment on the technical issues has yielded valuable information demonstrating that allowing cellular architectures in the Guard Bands would present an unacceptable risk of interference to public safety licensees. The enhanced coordination difficulties would also be too much to ask taxpayer-supported public safety agencies to overcome. Therefore, I will generally defer to the judgments and recommendations of our engineering experts in the Wireless Telecommunications Bureau and the Office of Engineering and Technology on these technical and coordination issues, absent clear and convincing contrary showings. None being presented here, I accede to the judgment that cellular architectures would pose an unacceptable risk to public safety. I do so, exclusively, on technical and coordination grounds.

However, I part company from my colleagues' decision to set-aside these Guard Band licenses for a single flavor of commercial user -- the "Guard Band Manager" (GBM). Guard bands are a valid spectrum management tool used to protect adjacent spectrum from unacceptable interference, and with public safety frequencies at issue, one can easily see the importance of employing them. Of course, if we were unwilling to accept even minimal interference from the Guard Bands, we would disallow any providers from operating therein. Yet, the Commission has accepted with some merit that it is spectrally efficient to allow some operation in the band, for services that can operate under strict technical limitations. I agreed with that prior decision, but what is bewildering is the majority's decision today to allow only one -- government-designed -- type of commercial provider in the Guard Bands. The majority does not assert, as it could not possibly, that it has done so because only GBMs can operate safely in the band. Instead, having hatched its prized creation, like Dr. Frankenstein, the Commission wants to incubate the creature in its own sheltered nest. I am not flatly opposed to the band manager concept as a way to facilitate the privatization of some of our licensing functions and to make more spectrum available to end users. I do believe, though, that granting them exclusive territory in these Guard Bands is unwarranted and ill advised for a number of reasons.

First, the set-aside is unnecessary to protect public safety, which was the sole purpose for establishing the Guard Bands in our previous Order. The additional interference protections and procedures adopted here adequately further that purpose. There is no reason to conclude that a GBM can meet the specifications, but no other imaginable commercial licensee could. Moreover, disallowing cellular architectures diminishes the threat of interfering uses resulting from a proliferation of carriers in the band, which as a practical matter severely narrows the number and type of viable applicants and users that might seek this spectrum. Finally, the further step of regulating various aspects of the commercial relationship between Guard Band licensees and end users may cost us credibility when it comes to judging our ability to adopt, implement and enforce our technical rules.¹

¹ In addition to meeting our technical restrictions designed to protect public safety, the Order provides that Guard Band licensees (1) must make the licensed spectrum available to third parties only through "leasing" the spectrum and act only as a "spectrum broker," not as a wireless service provider (Order at ¶¶ 27 and 54); (2) are required to lease the "predominant amount of their spectrum" to non-affiliates (*Id.* at ¶ 59); (3) are limited in the first auction to one of the Guard Band Manager licenses in each market for competitive reasons (*Id.* at ¶ 62); and (4) are prohibited from imposing on end users "unduly restrictive requirements" on use of the licensed frequencies, such as requiring an end user to purchase telecommunications equipment only from one

Second, restricting the Guard Bands to one form of licensee smother the development of innovative uses of the band, employing different business models and technology. I regret that rather than extending our prior successes in employing greater licensee flexibility and fully competitive auctions in order to promote the highest and best use of commercial spectrum, we are leaning back from these principles. As a consequence, potential licensees with new and innovative ways to use these guard bands will either be excluded from the auction or be forced to modify their business plans (in a very short time period) to qualify as a GBM. It is the auction process and the market that should pick the winning and losing business models for the provision of spectrum-based services. If any entity can comply with the technical rules, they should not be shut out of the auction or forced to re-tool quickly their business.

Third, I am concerned that reserving the Guard Band to GBMs is not entirely faithful with Congress' direction. We re-allocated this spectrum, pursuant to the 1997 Balanced Budget Act, for "commercial uses."² Nevertheless, the *Notice* in this proceeding sought "comment on the extent to which, consistent with the statute, the spectrum here can and should be available for private mobile and private fixed radio services."³ There has been some genuine doubt as to whether spectrum secured for private internal use complies with the statute's commercial use requirement.⁴ Sufficiently concerned with the language of the statute, the Commission has developed a new approach to the Band Manager concept and now, according to the government, GBMs shall be in the "business of leasing spectrum."⁵ To its credit, the majority does not, however, restrict GBMs to serving only private wireless users, and will permit them to lease spectrum to a wide range of customers, including network operators that provide fixed or mobile internal communications services or commercial radio services to end users.⁶ But, let's look closer: (1) the prohibition on cellular architectures tends to favor private and other types of spectrum users that traditionally deploy non-cellular technology and are experienced in coordinating among various site-based licensees, including public safety operations; (2) we originally conceived the Band Manager concept as a mechanism for auctioning spectrum allocated to private radio services;⁷ (3)

manufacturer or vendor, to require use of a particular technology, or to impose operating rules that would have the same practical effect (*Id.* at ¶ 66). I fear that these limitations on a Guard Band licensee's business will also tend to restrict eligibility and participation in this auction.

² 47 U.S.C. 337(a)(2); Reallocation of Television Channels 60-69, the 746-806 MHz Band, ET Docket No. 97-157, *Report and Order*, 12 FCC Rcd 22953, 22962-63 ¶ 20 (1998) ("The Budget Act requires that we assign this portion of the band for commercial use by auction. Private organizations or industry groups, however, will have the opportunity to seek the desired spectrum by participating in the auction.")

³ Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, WT Docket No. 99-168, *Notice of Proposed Rule Making*, 14 FCC Rcd. 11006, 11014-15 ¶ 15 (1999) (emphasis added). Several commenters in this proceeding suggested that our band plan should include spectrum allocated for use by the private wireless industry and licensed to Band Managers through auction.

⁴ See Order at ¶¶ 36-41 (dedicating significant ink to these "statutory considerations" and concluding that the business of leasing spectrum as a GBM constitutes a "commercial use" even if private users are permitted to lease spectrum from GBMs.)

⁵ Order at ¶¶ 2 and 41.

⁶ See Order at ¶ 41. As Commissioner Furchtgott-Roth points out, it is unclear whether GBMs are permitted to provide service directly to the "public" or only through a separate affiliate. See also Order at n. 61.

⁷ See Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, WT Docket No. 99-87, *Notice of Proposed Rule Making*, 14 FCC Rcd 5206, 5247-49 ¶¶ 88-95 (1999) ("[A] Band Manager would be eligible to apply for a private radio license, with mutually exclusive applications subject to resolution through competitive bidding. The Commission's principal role would be to allocate spectrum for private

the purpose of the requirement that GBMs lease the predominant amount of their spectrum to non-affiliates is to “ensure that we conduct a useful test of the Band Manager concept and obtain the full benefits of this new licensing approach, a core feature of which is leasing spectrum to third parties” (Order at ¶ 59); and (4) most telling, again, the result here is that only GBMs can bid for Guard Band spectrum. Thus, when viewed in totality, it is evident that this exclusivity is principally designed to substantially increase the likelihood (if not guaranty) that the spectrum ultimately lands in the hands of private users. This raises some question as to whether we have acted within the full spirit of Congress’ statutory objective.

I would have preferred that the guard band auction be open to all eligible businesses that are willing to comply with our technical rules. Accordingly, I respectfully dissent to the decision in the *Second Report and Order* to license the 700 MHz Guard Bands exclusively to Guard Band Managers.

services, establish the size and scope of the Band Manager license, and conduct auctions if mutually exclusive applications are received. As a condition of the Band Manager license, the Band Manager would be required to restrict its operations to the offering of internal communications services and/or capacity to an identified class of private radio eligibles.”).

**Separate Statement of
Commissioner Gloria Tristani**

Re: *Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commissions Rule, Second Report and Order, WTB Docket No. 99-168.*

Although both sides have made worthy claims to serving the public interest, I support the decision to impose technical restrictions in the Guard Band spectrum, including a ban on cellular system architecture. The 700 MHz spectrum is well-suited for new services that will help fulfill consumers' growing wireless needs and demands. Interested parties tout its potential for next generation mobile services and fixed wireless broadband services that can be deployed ubiquitously. Even the Guard Bands, which total six megahertz of spectrum, have generated proposals for a variety of uses, including delivery of broadband services to underserved and unserved areas. The challenge of the *700 MHz proceeding*, however, has been to craft a framework that allows for the deployment of such new and innovative services, while fulfilling the Congressional mandate that public safety operations using adjacent spectrum are protected from harmful interference. I believe that our action today, together with the *First Report and Order*, strikes an appropriate balance.

In the 1997 Balanced Budget Act, Congress directed the Commission to reallocate the 746-806 MHz band from exclusive broadcast use to public safety and commercial uses.¹ In doing so, Congress mandated that the Commission establish rules to protect public safety users from harmful interference caused by television broadcasters.² In addition, Congress directed the Commission to ensure that public safety users "continue to operate free of interference from any new commercial licensees."³ I take this direction most seriously. As policymakers, we need to ensure that those who dedicate themselves to protecting life and property can do their jobs without worrying that their communications links may be severed at any moment.

Working with the public safety community, industry, my colleagues and Commission staff, I have sought to provide service rule flexibility while limiting the potential for harmful interference to public safety operations. In the 30 megahertz of spectrum that was the subject of the *First Report and Order*, we adopted rules that take account of these two objectives. Although certain technical restrictions apply, I have no doubt that consumers will benefit greatly from the new services that will be deployed in this spectrum and the exciting applications that will result.

To give full effect to Congress' direction, however, we adopt rules today that impose further technical requirements on Guard Band spectrum immediately adjacent to public safety spectrum. In particular, we require entities operating in the Guard Bands to adhere to the same interference protection regime that

¹ 47 U.S.C. § 337(a), amended by the Balanced Budget Act of 1997, Pub. L. No. 105-33, 111 Stat. 251, § 3004 (1997) (directing that 24 megahertz of spectrum be reallocated for public safety use and 36 megahertz be reallocated for commercial use).

² 47 U.S.C. § 337(d)(4).

³ H.R. Conf. Rep. No. 105-2015, at 580 (1997).

governs 700 MHz public safety users. Guard Band Manager licensees will be responsible for engaging in frequency coordination with public safety coordinators. In addition, the rules we adopt today prohibit cellular system architectures in the Guard Bands. The public safety community asserts, and I have come to believe, that as a practical matter cellular architectures adjacent to public safety users would create significant hardships in the frequency coordination process and could increase the potential for harmful interference. Despite the enticing potential the Guard Band spectrum offers for certain commercial uses, I believe that our primary obligation here is to limit the potential for such harmful interference.

I support the action we take today, which fulfills the Congressional mandate to ensure that public safety users may operate in the 700 MHz spectrum without harmful interference.