

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

In the Matter of )  
 )  
Reallocation and Service Rules for the 698-746 ) GN Docket No. 01-74  
MHz Spectrum Band (Television Channels 52-59) )

**NOTICE OF PROPOSED RULE MAKING**

**Adopted:** March 16, 2001

**Released:** March 28, 2001

Comment Date: May 14, 2001

Reply Comment Date: June 4, 2001

By the Commission: Commissioner Tristani approving in part, dissenting in part, and issuing a statement.

**TABLE OF CONTENTS**

Heading	Paragraph #
I. INTRODUCTION .....	1
II. BACKGROUND .....	2
III. DISCUSSION .....	8
A. Allocation Proceeding .....	9
1. Reallocation .....	9
a. Current Allocation .....	12
b. Fixed, Mobile, and Broadcast Allocation .....	14
c. Special Considerations for Broadcast Allocation .....	15
d. Low Power Television Service .....	17
e. Satellite Services .....	19
2. Transition Issues .....	20
a. Incumbent Broadcasters .....	20
(i) Analog Stations .....	21
(ii) Digital Stations .....	25
(iii) Low Power Stations .....	27
b. Interference Protection for Television Services .....	29
(i) Protection of Analog Stations .....	30
(ii) Protection of Digital Stations .....	31
c. Coordination with Canada and Mexico .....	34

B. Service Rules .....	35
1. Scope of Licenses .....	40
a. Permissible Licensed Services .....	40
b. Size of Spectrum Blocks for Each License .....	46
c. Size of Service Areas for Geographic-Area Licensing .....	53
d. Paired or Unpaired Spectrum Bands .....	60
2. Technical Rules .....	65
a. General Technical Rules .....	65
b. Co-Channel Interference Control .....	66
c. Out-of-Band and Spurious Emission Limits .....	76
d. Power Limits and RF Safety .....	78
3. Licensing Rules .....	80
a. Regulatory Status .....	81
b. Eligibility .....	89
c. Spectrum Aggregation Limits .....	91
d. Foreign Ownership Restrictions .....	94
e. License Term; Renewal Expectancy .....	97
f. Performance Requirements .....	103
g. Disaggregation and Partitioning of Spectrum .....	106
4. Operating Rules .....	110
a. Forbearance .....	112
b. Equal Employment Opportunity .....	114
5. Competitive Bidding Procedures .....	115
a. Incorporation by Reference of the Part 1 Standardized Auction Rules .....	116
b. Provisions for Designated Entities .....	117
c. Public Notice of Initial Applications/Petitions to Deny .....	123
6. Possible Measures to Facilitate Clearing of 698-746 MHz Band and Accelerate DTV Transition .....	125
a. Voluntary Transition Agreements .....	128
b. Secondary Auctions .....	131
c. Additional Proposals to Facilitate Band Clearing Accelerate the Digital Television Transition .....	133
IV. PROCEDURAL MATTERS .....	137
A. <i>Ex Parte</i> Rules – Permit-But-Disclose .....	137
B. Initial Regulatory Flexibility Analysis .....	138
C. Initial Paperwork Reduction Analysis .....	139
D. Comment Period and Procedures .....	141
E. Further Information .....	146
V. ORDERING CLAUSES .....	147

Appendix A: Proposed Rules

Appendix B: Incumbent TV Operations

Appendix C: Initial Regulatory Flexibility Analysis

## I. INTRODUCTION

1. By this action, we propose to reallocate the 698-746 MHz spectrum band, currently comprising television (“TV”) Channels 52-59. We are reclaiming this spectrum for new commercial services as part of our transition of TV broadcasting from analog to digital transmission systems. Digital television (“DTV”) technology is more spectrally efficient thus allowing the same amount of television service to operate in a reduced allocation, *i.e.*, TV Channels 2-51, after the transition. We propose a co-primary allocation for the fixed, mobile, and broadcasting services for this 48 megahertz band. This flexible allocation will enable service providers to select the technology they wish to use to provide new broadband services in order to make the best use of this spectrum. We also examine possible licensing, operating, and competitive bidding rules for wireless and other services in this spectrum band. We anticipate that licenses will be assigned by competitive bidding consistent with statutory requirements.<sup>1</sup> We also consider measures to protect the incumbent analog and digital broadcast television services from interference until the transition to digital television is complete. We believe these measures will enable an orderly transition for broadcasters while permitting the introduction of new services into the band.

## II. BACKGROUND

2. Section 309(j)(14) of the Communications Act of 1934, as amended (“Communications Act”) requires the Commission to assign spectrum recaptured from broadcast television as a result of the transition from analog to digital transmission systems by competitive bidding.<sup>2</sup> Section 309(j)(14)(C)(ii) states that the Commission shall assign licenses and report to the Congress the total revenues from such competitive bidding by September 30, 2002.<sup>3</sup> The statute requires that analog broadcasters cease operation on the recaptured spectrum in 2006 unless certain service penetration criteria are met.<sup>4</sup> Specifically, the statute requires the

---

<sup>1</sup> See Balanced Budget Act of 1997, Pub. L. No. 105-33, 111 Stat. 251 § 3003 (1997) (adding new Section 309(j)(14) to the Communications Act of 1934, as amended) (“BBA 97”); § 3007 (uncodified, reproduced at 47 U.S.C. § 309(j) note 3).

<sup>2</sup> See 47 U.S.C. § 309(j)(14)(C)(ii).

<sup>3</sup> *Id.*

<sup>4</sup> See *id.* § 309(j)(14)(A)-(B). The DTV transition will end December 31, 2006, but may be extended in some markets pursuant to Section 309(j)(14)(B) as follows:

The Commission shall extend the date [of the DTV transition period] for any station that requests such extension in any television market if the Commission finds that –

(i) one or more of the stations in such market that are licensed to or affiliated with one of the four largest national television networks are not broadcasting a digital television service signal, and the Commission finds that each such station has exercised due diligence and satisfies the conditions for an extension of the Commission’s applicable construction deadlines for digital television service in that market;

(ii) digital-to-analog converter technology is not generally available in such market; or

(iii) in any market in which an extension is not available under clause (i) or (ii), 15 percent or more of the television households in such market – (I) do not subscribe to a multichannel video programming distributor (as defined in section 602) that carries one of the digital television service programming channels

(continued....)

Commission to extend the end of the transition on a market-by-market basis if one or more of the four largest network stations or affiliates are not broadcasting in digital, digital-to-analog converter technology is not generally available, or 15% or more television households are not receiving a digital signal.<sup>5</sup> Thus, while the end of the transition is targeted for 2006, and may extend beyond that date, the Commission must reallocate spectrum and assign commercial licenses in the encumbered television spectrum by September 30, 2002.<sup>6</sup> Therefore, auction of this spectrum for new services will occur a number of years in advance of the end of the digital transition, during which period, the incumbent broadcasters may continue to operate in the band. New licensees may operate in the band prior to the end of the transition to the extent they do not cause interference to existing analog and digital broadcasters.<sup>7</sup>

3. Under Section 309(j)(3) of the Communications Act, in developing a competitive bidding methodology and specifying the characteristics of licenses to be assigned by auction, we are required to promote a number of objectives, including the development and rapid deployment of new technologies, products, and services for the benefit of the public, the promotion of economic opportunity and competition, the recovery of a portion of the value of the spectrum made available for commercial use, and the efficient and intensive use of the spectrum, in a manner that provides adequate time for interested parties to develop their business plans.<sup>8</sup> Our regulations shall prescribe area designations and bandwidth assignments that promote (a) equitable distribution of licenses and services among geographic areas, (b) economic opportunity for a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women, and (c) investment in and rapid deployment of new technologies and services.<sup>9</sup>

4. Section 303(y)(2) of the Communications Act authorizes the Commission to allocate spectrum to provide flexibility of use if certain conditions are met.<sup>10</sup> Specifically, the Commission must make affirmative findings that such flexibility: (1) is consistent with international agreements; (2) would be in the public interest; (3) would not deter investment in communications services and systems, or technology development; and (4)

(Continued from previous page) \_\_\_\_\_

of each of the television stations broadcasting such a channel in such market; and (II) do not have either – (a) at least one television receiver capable of receiving the digital television service of the television stations licensed in such market; or (b) at least one television receiver of analog television service signals equipped with digital-to-analog converter technology capable of receiving the digital television service signals of the television stations licensed in such market.

<sup>5</sup> See *id.* § 309(j)(14)(B)

<sup>6</sup> See BBA 97, *supra* note 1, §§ 3003, 3007.

<sup>7</sup> 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, ¶ 80 (1997) (*DTV Sixth Report and Order*).

<sup>8</sup> See 47 U.S.C. § 309(j)(3)(A)-(E).

<sup>9</sup> *Id.* § 309(j)(4). We must also consider other factors, including payment schedules, performance requirements, the use of bidding preferences, and the use of a reserve price or minimum bid.

<sup>10</sup> See *id.* § 303(y)(2).

would not result in harmful interference among users.<sup>11</sup>

5. Pursuant to legislative mandates, the Commission is requiring that the broadcast television service convert from the existing analog television transmission system to a new digital television system that will allow broadcasters the flexibility to provide a variety of new services, including high definition television service, multicasting of multiple programs, data services and other enhancements.<sup>12</sup> Broadcasters have been provided a second channel to operate their DTV service during the transition from analog to digital service.<sup>13</sup> At the end of this transition, analog service will cease and one of each broadcaster's two channels will be recovered.<sup>14</sup> Because the DTV transmission system is more spectrally efficient than the analog system, less spectrum will be needed for broadcast television service after the transition.<sup>15</sup> A portion of the TV spectrum, *i.e.*, Channels 52-69, is therefore being recovered for new uses. Spectrum currently allocated to Channels 2-51 will remain "core" television broadcast spectrum. Analog services on all TV Channels will cease operations at the end of the transition. Digital services on out-of-core stations will be relocated into the core spectrum (Channels 2-51).

6. We are addressing the spectrum reclamation in two parts – Channels 60-69 ("Upper 700 MHz Band" or "746-806 MHz band") and Channels 52-59 ("Lower 700 MHz Band" or "698-746 MHz band") primarily as a result of unique statutory requirements and varying degrees of incumbency. When we adopted the DTV Table of Allotments in the *DTV Sixth Report and Order*, we differentiated between these two bands, remarking that: "[t]he Table will also provide for early recovery of 60 MHz of spectrum (Channels 60-69)

---

<sup>11</sup> *Id.*

<sup>12</sup> See generally Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, MM Docket No. 87-268, *Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders*, 14 FCC Rcd 1348 (1998) (*DTV Second MO&O of the Fifth and Sixth Report and Orders*); Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, MM Docket No. 87-268, *Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order*, 13 FCC Rcd 7418 (1998) (*DTV MO&O of the Sixth Report and Order*); Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, MM Docket No. 87-268, *Memorandum Opinion and Order on Reconsideration of the Fifth Report and Order*, 13 FCC Rcd 6860 (1998) (*DTV MO&O of the Fifth Report and Order*); *DTV Sixth Report and Order*, 12 FCC Rcd 14588; Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, MM Docket No. 87-268, *Fifth Report and Order*, 12 FCC Rcd 12809 (1997) (*DTV Fifth Report and Order*) (collectively *DTV Proceeding*).

<sup>13</sup> See, *e.g.*, *DTV Fifth Report and Order*, 12 FCC Rcd at 12812-13, ¶ 8.

<sup>14</sup> See generally *id.* at 12848-51, ¶¶ 94-100; *DTV Sixth Report and Order*, 12 FCC Rcd at 14590-93, ¶¶ 1-7.

<sup>15</sup> The DTV transmission system is more spectrally efficient because it allows DTV stations to provide the same geographic coverage as an analog station, but with significantly less power, and because it precludes the use of the same and other channels at nearby locations to a lesser extent than for analog television transmissions. DTV-to-DTV protection requirements are limited to co-channel and first adjacent channel protection while analog-to-analog involves protection to stations operating on a number of other related channels as well. As a result, the DTV transmission system allows stations to be allotted with reduced related channel protection for UHF receivers. The UHF related channel protection requirements for analog service are set forth in Section 73.698 of the Commission's rules. See 47 C.F.R. § 73.698.

and recovery of [] additional ... spectrum at the end of the [DTV] transition period.”<sup>16</sup> The Commission’s early recovery policies for Channels 60-69 were predicated on the urgent need for additional spectrum by other services, particularly to meet the needs of public safety and other land mobile services.<sup>17</sup> Given the relatively light use for full service broadcasting and the proximity of existing land mobile communications systems to Channels 60-69, the Commission concluded that equipment economies and enhanced interoperability between future public safety services and current systems operating in the 800 MHz band supported early recovery.<sup>18</sup> The DTV Table also, *inter alia*, facilitates the early recovery of Channels 60-69 by minimizing the use of these channels for DTV purposes.<sup>19</sup> Subsequently, the BBA 97 was enacted which mandated that the Commission reallocate Channels 60-69 to new public safety and commercial services by January 1998.<sup>20</sup> In ET Docket 97-157, the Commission reallocated the 746-806 MHz (TV Channels 60-69) band for new services. As required by statute, it reallocated 24 megahertz for public safety and 36 megahertz for new commercial services.<sup>21</sup> Assignment by competitive bidding for six megahertz of this spectrum has been completed<sup>22</sup> and auction of the remaining 30 megahertz is currently planned for later this year.<sup>23</sup>

7. Recovery of additional spectrum beyond the 746-806 MHz band (TV Channels 60-69) was planned for the end of the digital transition.<sup>24</sup> Thus, early recovery of the 698-746 MHz band (TV Channels 52-59) was not contemplated in the DTV transition plan. This band is significantly more encumbered with TV operations.<sup>25</sup> Further, both the Congress and the Commission initially expected to license the Lower 700 MHz

---

<sup>16</sup> *DTV Sixth Report and Order*, 12 FCC Rcd at 14590, ¶ 1. *See also id.* at 14624-25, ¶ 76 (“[W]e believe that the public interest is best served by developing a Table of DTV Allotments that meets the DTV spectrum needs of broadcasters during the transition; facilitates the early recovery of spectrum from channels 60 to 69; and also facilitates the eventual recovery of 138 MHz of spectrum currently being used for analog broadcasting.”).

<sup>17</sup> *See id.* at 14626, ¶ 79.

<sup>18</sup> *See Reallocation of Television Channels 60-69, the 746-806 MHz Band*, ET Docket No. 97-157, *Notice of Proposed Rulemaking*, 12 FCC Rcd 14141, 14142, ¶ 3 (1997) (*Upper 700 MHz Reallocation Notice*).

<sup>19</sup> *Id.*

<sup>20</sup> *See BBA 97 supra* note 1.

<sup>21</sup> *See generally Upper 700 MHz Reallocation Notice*, 12 FCC Rcd 14141.

<sup>22</sup> *See 700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, *Public Notice*, DA 00-2154 (rel. Sep. 25, 2000); *700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, *Public Notice*, DA 01-178 (rel. Feb. 22, 2001).

<sup>23</sup> *Auction of Licenses for the 747-762 and 777-792 MHz Bands Postponed Until September 12, 2001*, *Public Notice*, Report No. AUC-01-31-A, DA 01-266 (rel. Jan. 31, 2001).

<sup>24</sup> *See DTV Sixth Report and Order*, 12 FCC Rcd at 14590, ¶ 1.

<sup>25</sup> *See id.* at 14609, ¶ 37. The NTSC incumbents and pending applications on Channels 52-59 include 89 licenses, 12 construction permits, and applications and allotment petitions for 57 new stations. The DTV incumbents and allotment petitions on Channels 52-59 include 17 licenses, 95 construction permits, and 53 applications. The (continued....)

subsequent to the auction of the Upper 700 MHz Band.<sup>26</sup> Congress did not specify in the statute the amount of spectrum the Commission must reclaim beyond Channels 60-69. The Commission determined that broadcasters could operate with digital transmission systems in Channels 2-51 and therefore Channels 52-59 could be reclaimed for new services.<sup>27</sup>

### III. DISCUSSION

8. Our framework for consideration of both allocation and service rules for the Lower 700 MHz Band is modeled on our approach in the Upper 700 MHz proceeding.<sup>28</sup> In this Notice, we address a number of issues similar to those we addressed in the Upper 700 MHz proceeding. We seek comment generally on whether the considerations that we found to be appropriate for the 746-806 MHz bands are equally applicable to the Lower 700 MHz spectrum once it has been reallocated, or whether, given the differences in the two bands, we should apply other approaches.

#### A. Allocation Proceeding

##### 1. Reallocation

9. In recent years, there has been tremendous growth in new wireless services and demand for

(Continued from previous page) \_\_\_\_\_

LPTV incumbents and pending applications on Channels 52-59 include 835 licensees, 244 construction permits, and 607 applications.

<sup>26</sup> The BBA 97 directed the Commission to reallocate certain portions of the Upper 700 MHz spectrum from broadcast use to commercial use by December 31, 1997, *see* 47 U.S.C. § 337(a) (as added by § 3004 of the BBA 97), but not to commence competitive bidding for the commercial licenses on the reallocated spectrum before January 1, 2001, (*see* 47 U.S.C. § 337(b)(2)). That deadline was subsequently accelerated. *See* Consolidated Appropriations Act, 2000, Pub. L. No. 106-113, 113 Stat. 2502, app. E, § 213; 145 Cong. Rec. H12493-94 (Nov. 17, 1999) (“Consolidated Appropriations Act”). By contrast, the statutory deadline of September 30, 2002 has remained unchanged since it was first enacted in the BBA 97. *See* 47 U.S.C. § 309(j)(14)(C)(ii); *see also* BBA 97 § 3007 (reproduced at 47 U.S.C. § 309(j) note 3).

<sup>27</sup> *See DTV MO&O of the Sixth Report and Order*, 13 FCC Rcd at 7435-36, ¶ 42.

<sup>28</sup> *See* 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, *Third Report and Order*, FCC 01-25 (rel. Jan. 23, 2001) (*Upper 700 MHz Third Report and Order*); 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 Memorandum Opinion and Order*, FCC 01-2 (rel. Jan. 12, 2001) (*Upper 700 MHz Second MO&O*); 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, *Memorandum Opinion and Order and Further Notice of Proposed Rulemaking*, FCC 00-224 (rel. June 30, 2000) (*Upper 700 MHz MO&O and FNPRM*); 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*, 15 FCC Rcd 5299 (2000) (*Upper 700 MHz Second Report and Order*); 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*, 15 FCC Rcd 476 (2000) (*Upper 700 MHz First Report and Order*); 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 Rulemaking*, 14 FCC Rcd 11006 (1999) (collectively “Upper 700 MHz proceeding”).

spectrum.<sup>29</sup> Notwithstanding the introduction of more efficient digital technologies that increase the potential capacity of spectrum to provide communications services, continuing expectations regarding increased demand raise the concern that spectrum may be a limiting factor for new technology and services. In the United States, virtually all spectrum, particularly in the most sought after bands below 3 GHz, has been assigned to various services. Consequently, with the exception of several small bandwidth segments of only a few megahertz each that are not sufficient to support high volume operations, there is very little unencumbered spectrum available for new uses or users. In order to provide spectrum for new services, we now have to find ways for such services to share spectrum with existing services or to reallocate spectrum from existing services to new services and technologies. In the latter case, we have sometimes implemented plans that relocate incumbent operations to other, generally higher frequency bands, and other times simply reduced the amount of bandwidth available for a service.<sup>30</sup>

10. The transition to digital television and resulting spectrum reclamation is a prime example of the types of activities the Commission has undertaken to make new spectrum available. As a result of more spectrally efficient digital technology, the Commission is able to reduce the amount of spectrum currently allocated to broadcasting by 108 megahertz. This transition is a significant undertaking. In order to facilitate the transition, we must balance the desire for new services with the significant investment and planning required by the broadcasters to build new digital facilities and relocate operations.

11. As previously noted, the Commission has anticipated, given the degree of incumbency, that this band likely would remain principally a television band until the end of the digital transition. However, given the statutory requirement to auction this spectrum several years in advance of the end of the transition, we seek comment generally on our reallocation plans and service rules necessary to license the spectrum consistent with the Congressional mandate. We also seek comment on whether we should consider ways to facilitate the DTV transition and the availability of this band to auction bidders sooner. In making proposals, commenters should address consistency with the statutory requirements of Section 309(j)(14) and other relevant provisions of the Communications Act.

#### **a. Current Allocation**

12. Domestically, the 698-746 MHz band is currently allocated on a primary basis to non-government broadcasting, *i.e.*, TV Channels 52-59, each having a bandwidth of six megahertz. TV broadcast services are

---

<sup>29</sup> See generally Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium, *Policy Statement*, 14 FCC Rcd 19868 (1999) (*Spectrum Reallocation Policy Statement*); Principles for Promoting the Efficient Use of Spectrum by Encouraging the Development of Secondary Markets, *Policy Statement*, FCC 00-401 (rel. Dec. 1, 2000) (*Secondary Markets Policy Statement*).

<sup>30</sup> See, *e.g.*, Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, ET Docket No. 92-9, *First Report and Order and Third Notice of Proposed Rulemaking*, 7 FCC Rcd 6886 (1992) (relocation of 2 GHz fixed microwave services to available frequencies in higher bands or alternative media); Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service, ET Docket No. 95-18, *Second Report and Order and Second Memorandum Opinion and Order*, 15 FCC Rcd 12315 (2000) (reducing spectrum allocation for Broadcast Auxiliary Service from 120 megahertz to a total of 85 megahertz at 2025-2110 MHz).



also permitted to use TV subcarrier frequencies, and more generally the TV channel, on a secondary basis for other broadcast-related (*e.g.*, datacasting) and non-broadcast purposes.<sup>31</sup> Further, the band is allocated to the fixed service for subscription television operations in accordance with Part 73 of our rules.<sup>32</sup> Internationally, the band is allocated worldwide on a primary basis to the broadcasting service. The band is also allocated to the fixed and mobile services in Region 2 (which includes the United States) on a secondary basis and in Region 3 on a co-primary basis.<sup>33</sup> A footnote to the International Table of Frequency Allocations elevates the allocation to the fixed and mobile services to primary status in the United States, Mexico, and several other Region 2 countries, but has not been implemented domestically.<sup>34</sup>

13. In its 1999 *Spectrum Reallocation Policy Statement*, the Commission noted that it planned to consider reallocating the 698-746 MHz band for Fixed, Mobile and new Broadcast services for commercial uses following the same approach it adopted for reallocating the 36 megahertz at 746-764 MHz and 776-794 MHz.<sup>35</sup> In the Commission's recently adopted *3G Notice on Advanced Fixed and Mobile Services*, the 698-746 MHz band was identified as a possible candidate for third-generation ("3G") mobile services.<sup>36</sup> Further, a resolution adopted at World Radiocommunication Conference ("WRC")-2000 recognized that some administrations may use the 698-746 MHz band for 3G services.<sup>37</sup> At WRC-2000, the United States proposed that the 698-746 MHz band be identified as one of several candidate bands for the terrestrial component of International Mobile Telecommunications ("IMT")-2000 (3G) and other advanced communication applications.<sup>38</sup>

#### **b. Fixed, Mobile, and Broadcast Allocation**

14. Consistent with our *Spectrum Reallocation Policy Statement*, the allocation for the 746-806 MHz band, and U.S. positions taken at WRC, we propose to reallocate the entire 48 megahertz of spectrum in the 698-746 MHz band to the fixed and mobile services, and retain the existing broadcast allocation. Consistent with this proposal, we also make editorial modifications to Footnote NG 159 to the Table of Allocations.<sup>39</sup>

---

<sup>31</sup> See 47 C.F.R. § 2.106 note NG128.

<sup>32</sup> See *id.* § 2.106 note NG149.

<sup>33</sup> *Id.*

<sup>34</sup> *Id.* § 2.106 note S5.293.

<sup>35</sup> See *Spectrum Reallocation Policy Statement*, 14 FCC Rcd at 19879-80, ¶ 25.

<sup>36</sup> See Amendment of Part 2 of the Commission's Rules to Allocate Spectrum below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems, ET Docket No. 00-258, *Notice of Proposed Rulemaking*, FCC 00-455 (rel. Jan. 5, 2001) app. D (*3G Notice*).

<sup>37</sup> *Id.* at ¶ 38.

<sup>38</sup> See *International Telecommunications Union Final Acts of the World Radiocommunication Conference (WRC-2000)*, Istanbul, 2000.

<sup>39</sup> Proposed rule changes to the Table of Frequency Allocations are set forth in Appendix A to this Notice.

This allocation will support a family of services, including next generation broadband operations, and permit the maximum diversity in service offerings and the broadest licensee discretion, consistent with international allocations. This spectrum is located near spectrum now used for cellular radio telephone and other land mobile services, and it could be used to expand the capacities of these services. Other possible applications for this spectrum include wireless local loop telephone service, video and multimedia applications, and industrial communications services. Additionally, under our proposal, parties would be able to obtain licenses in this spectrum to offer broadcasting services. We request comment on whether this broad allocation is appropriate, or whether some other allocation would better serve the public interest. We also seek comment with respect to each of the findings required under Section 303(y) with respect to our proposed allocation of the 698-746 MHz band.<sup>40</sup>

### c. Special Considerations for Broadcast Allocation

15. The DTV transition plan anticipates that broadcasters will vacate this spectrum by the end of the DTV transition period. For this reason, we would distinguish between broadcasters authorized pursuant to the current allocation and service rules from new licensees who may provide broadcasting service. New licensees will be subject to the rules we will adopt for the regulation of the reallocated spectrum. Broadcasters authorized under the current rules are entitled to protection or accommodation from new licensees and will have to vacate this spectrum by the end of the transition period. We envision that new broadcast services that may find this band attractive could include two-way interactive, cellular, and mobile television broadcasting services. For example, a number of existing broadcasters and others have expressed interest in operating DTV services with a coded orthogonal frequency division multiplex (COFDM) modulation system that they believe would support mobile television services. This allocation could provide opportunities for these parties to operate such services.

16. At the end of the transition, television broadcasting will remain adjacent to the 698-746 MHz band on channel 51.<sup>41</sup> While we will consider issues such as field strength limitations in our service rules, we seek comment on whether restrictions to the allocation are necessary to protect adjacent channel broadcast television operations. For example, should we consider a guard band or a separate allocation at the lower end of the band limited to low power services? Alternatively, would the 698-746 MHz band be more useful for fixed services than mobile services in light of the high number of incumbent broadcasters that operate on the spectrum? In this regard, the comments should address whether fixed services may be more successful than mobile services in structuring their systems to avoid interference with incumbent broadcasters, and thus be able to use the spectrum more efficiently. We are also concerned about the effects of adjacent channel television broadcasting on low power mobile operations in the 698-746 MHz band, for example mobile receive antennas.<sup>42</sup> We seek comment on whether we should adjust our allocation to perhaps minimize the presence of systems with low immunity to high-powered signals.

---

<sup>40</sup> See, e.g., *supra* para. 4.

<sup>41</sup> This will include both full power and Class A low power television stations. Class A is a subset of low power television defined by the Community Broadcast Protection Act of 1999.

<sup>42</sup> See, e.g., Broadcast Corporation of Georgia (WVEU-TV) Atlanta, Georgia, for Authority to Resume Full Power Operations, *Memorandum Opinion and Order*, 55 Rad. Reg. 2d (P&F) 854 (Mar. 8, 1984).

#### d. Low Power Television Service

17. The low power television (“LPTV”) service currently operates on a secondary basis in the 698-746 MHz band. Thus, LPTV stations are allowed to operate to the extent they do not interfere with full power stations. In our *DTV Proceeding*, we determined that there is insufficient spectrum to preserve all existing LPTV and TV translator stations, and decided that LPTV and TV translator stations will retain their secondary allocation status.<sup>43</sup> In the 746-806 MHz proceeding, we permitted continuing operations on a secondary basis for existing low power services in that band. At the end of the transition, low power television will be required to cease operations on these frequencies. In the *DTV Proceeding*, we amended our rules to permit all LPTV stations on Channels 60 to 69 to file displacement relief applications at any time requesting a channel below Channel 60, even where there is no predicted or actual interference conflict.<sup>44</sup>

18. We subsequently extended the presumption of displacement to LPTV stations and TV translators authorized on Channels 52-59.<sup>45</sup> Because we did not anticipate recovery of the 698-746 MHz band prior to the end of the transition, we did not specifically address the status of LPTV vis-à-vis new service providers prior to the end of the transition. Nor did we address whether LPTV stations should be permitted to operate in this band after the end of the transition. Section 337(e)(2) of the Communications Act states that after allocating the 746-806 MHz band “the Commission shall seek to assure, consistent with the Commission’s plan for allotments for digital television service, that each qualifying low-power television station is assigned a frequency below 746 MHz to permit the continued operation of such station.”<sup>46</sup> As a result, we believe that low power television should be permitted to continue to operate on the 698-746 MHz band on a secondary basis. Accordingly, we propose that LPTV and TV translator stations not be permitted to cause harmful interference to stations of primary services, including new licensees in Channels 52-59, and cannot claim protection from harmful interference from stations of primary services, including new licensees in Channels 52-59. However, as set forth in the *DTV Sixth Report and Order*, we propose that LPTV and TV translator operations will not be required to alter or cease their operations until they actually cause interference to a DTV station or new service provider’s operations in the 698-746 MHz band.<sup>47</sup> Further, as we did in the 746-806 MHz band, we propose that LPTV stations be permitted to negotiate interference agreements with new service providers.<sup>48</sup> We note that it may be possible for many low power stations operating on Channels 52-59 to co-exist with new service operations on a non-interfering basis. For example, in certain regions of the country, such as rural areas and the western mountainous states, LPTV stations and TV translators may not be affected by new service operations, at least not in the near future. Although we recognize that LPTV and TV translator stations retain this secondary status, we

---

<sup>43</sup> See, e.g., *DTV Sixth Report and Order*, 12 FCC Rcd at 14595, 14627, 14652-53, ¶¶ 11, 81, 141-42.

<sup>44</sup> See *DTV MO&O of the Sixth Report and Order*, 13 FCC Rcd at 7465-66, ¶ 116.

<sup>45</sup> See Establishment of a Class A Television Service, MM Docket No. 00-10, *Report and Order*, 15 FCC Rcd 6355, 6395-96, ¶ 100 (2000).

<sup>46</sup> 47 U.S.C. § 337(e)(2).

<sup>47</sup> See *DTV Sixth Report and Order*, 12 FCC Rcd at 14652-53, ¶ 142.

<sup>48</sup> See Reallocation of Television Channels 60-69, The 746-806 MHz Band, ET Docket No. 97-157, *Report and Order*, 12 FCC Rcd 22953, 22966, ¶ 27 (1998) (*Upper 700 MHz Reallocation Order*).

seek comment on these proposals and any additional considerations that might mitigate the impact on low power operations on Channels 52-59 during the transition period.

### e. Satellite Services

19. While we are not making a specific proposal at this time concerning an allocation in this band for satellite services, we also seek comment on this issue. The 698-746 MHz band could possibly be used for satellite uplink transmissions.<sup>49</sup> While there may be significant constraints on such uses because of the existing high-powered transmitters in this band, several satellite systems utilize technologies that may make satellite operations possible. We seek comment on whether satellite operations, including satellite feeder link operations, which typically involve a limited number of earth station locations, are technically feasible in this band. In addition, while the BBA 97 requires that we assign spectrum reclaimed from broadcasters as a result of the digital transition by competitive bidding,<sup>50</sup> subsequently-enacted legislation restricts the use of competitive bidding to license spectrum used for the provision of certain international satellite services.<sup>51</sup> We seek comment on whether these statutory provisions would affect our ability to allocate spectrum for flexible uses that would include the ability to deploy satellite services' subject to appropriate interference and other technical limitations.<sup>52</sup>

## 2. Transition Issues

### a. Incumbent Broadcasters

20. As noted above, incumbent broadcasters may remain on the 698-746 MHz band until the end of the digital transition targeted for 2006. The target date of 2006 may be extended for several years depending

---

<sup>49</sup> The International Telecommunication Union ("ITU") is currently studying whether additional spectrum can be made available for use by systems in the mobile satellite service, and this matter is on the agenda for the WRC in 2003. See ITU Resolution 214 (Rev. WRC-2000), "Sharing studies relating to consideration of the allocation of bands below 1 GHz to the non-geostationary mobile-satellite service" (urging studies on sharing between non-geostationary mobile satellite and other services in frequencies below 1 GHz); ITU Resolution 800 (WRC-2000), "Agenda for the 2003 World Radiocommunication Conference," *resolves* 1.20; *cf.* ITU Resolution 728 (Rev. WRC-2000), "Studies relating to consideration of allocations in the band 470-862 MHz to non-geostationary mobile-satellite services." See also ITU Radio Regulations S5.311.

<sup>50</sup> 47 U.S.C. § 309(j)(14)(C).

<sup>51</sup> See *Open-Market Reorganization for the Betterment of International Telecommunications Act*, Pub. L. No. 106-180, 114 Stat. 48 (2000) ("ORBIT Act"). Specifically, Section 647 of the ORBIT Act provides:

Notwithstanding any other provision of law, the Commission shall not have the authority to assign by competitive bidding orbital locations or spectrum used for the provision of international or global satellite communications services. The President shall oppose in the International Telecommunication Union and in other bilateral and multilateral fora any assignment by competitive bidding of orbital locations and or spectrum used for provision of such services.

<sup>52</sup> *Cf.* Amendment of the Commission's Rules with Regard to the 3650-3700 MHz Government Transfer Band, ET Docket No. 98-237, *First Report and Order and Second Notice of Proposed Rulemaking*, FCC 00-363 (rel. Oct. 24, 2000) (*3650-3700 MHz First Report and Order*).

on DTV consumer penetration levels.<sup>53</sup> Upon completion of the transition, analog service will cease and the digital incumbents will be relocated into the “core” spectrum (Channels 2-51). The significant degree of incumbency will pose considerable challenges to the provision of viable new commercial services prior to the end of the transition.<sup>54</sup> We seek comment generally on how we can further the viability of auction of this spectrum consistent with our statutory obligations and sound principles of spectrum management.

**(i) Analog Stations**

21. Currently, there are 89 licensed full service NTSC analog stations and 12 approved analog construction permits on the 698-746 MHz band. For the 746-806 MHz band, we concluded that stations for which a construction permit has been granted are sufficiently far enough along the licensing process that they should be treated the same as operating TV stations and receive protection from new service providers during the DTV transition period.<sup>55</sup> The Commission has established a three-year construction requirement to ensure that holders of construction permits, both for new facilities and modification of existing facilities, progress in construction.<sup>56</sup> We propose to treat construction permits in the 698-746 MHz band in the same manner we adopted in the 746-806 MHz band and seek comment on this proposal.

22. In the *DTV Sixth Further Notice*, in order to accommodate parties who were in the process of preparing applications, we established a final opportunity for the filing of new applications for analog stations for vacant allotments.<sup>57</sup> This filing period closed on September 20, 1996. Subsequently, the Commission established a second filing period to allow persons with certain pending requests for new analog stations to modify their requests, if possible, to eliminate technical conflicts with DTV stations and to move from Channels 60-69.<sup>58</sup> This second filing period opened on November 22, 1999 and closed on July 17, 2000.<sup>59</sup>

---

<sup>53</sup> See *supra* para. 2.

<sup>54</sup> Maps showing the Grade B contours of all co-channel and adjacent channel TV stations on Channels 52-59 in the United States are set forth in Appendix B to this Notice.

<sup>55</sup> See *Upper 700 MHz Reallocation Order*, 12 FCC Rcd at 22969, ¶ 35.

<sup>56</sup> 47 C.F.R. § 73.3598.

<sup>57</sup> See *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, MM Docket No. 87-268, *Sixth Further Notice of Proposed Rule Making*, 11 FCC Rcd 10968 (1996) (*DTV Sixth Further Notice*). The adoption date of this Notice (July 25, 1996) was the last opportunity to file petitions to add analog channels to the TV Table of Allotments. The application filing deadline (September 20, 1996) was established as 30 days after publication of the Notice in the Federal Register. Regarding these applications, we decided to continue our “cut-off” process for accepting competing applications. We also decided to continue the policy of considering requests for waiver of the 1987 freeze Order on a case-by-case basis. See *Order*, RM 5811, Mimeo No. 4074 (rel. July 17, 1987).

<sup>58</sup> See *Mass Media Bureau Announces Window Filing Opportunity for Certain Pending Applications and Allotment Petitions for New Analog TV Stations*, *Public Notice*, 14 FCC Rcd 19559 (1999) (*Analog TV Filing PN*).

<sup>59</sup> See *Window Filing Opportunity for Certain Pending Applications and Allotment Petitions for New Analog TV Stations Extended to July 15, 2000*, *Public Notice*, 15 FCC Rcd 4974 (2000).

Applications could be submitted during this filing window for (1) amendments (other than channel changes) to pending applications for new full-service NTSC television stations on Channel 2-59, (2) petitions for rule making seeking a new channel below Channel 60 for those applicants with pending applications for new full-service NTSC television stations on Channels 60-69, (3) petitions for rule making seeking a new channel below channel 60 for those applicants with pending applications for new full-service NTSC television stations on Channels 2-59 at locations inside of the “TV Freeze Areas” and (4) amendments to pending rule making petitions to amend the TV Table of Allotments to add NTSC television allotments.<sup>60</sup>

23. There are pending requests for approximately 57 new NTSC stations in this band, either with applications or allotment petitions originally filed during the filing windows established by the Commission. Some of the requests have been pending on these channels since they were filed, while others were amended to specify a channel in this band under procedures announced in Public Notice DA 99-2605. Previously, those new station proposals had been for stations on Channels 2 through 59 at locations where they would have conflicted with one or more DTV allotments or for use of TV Channels 60 through 69. The Commission recognized that those persons with pending applications and/or petitions for new full-service NTSC television stations on those channels had already invested time, money and effort into their applications and petitions.<sup>61</sup> Therefore, the Commission stated that it would not summarily terminate the pending applications and petitions, and it would, at a later date, provide applicants and petitioners an opportunity to amend their applications and petitions, if possible, to a channel below Channel 60.<sup>62</sup>

24. We recognize that continuing to process these applications could result in greater incumbency on the 698-746 MHz band, which may make new service operations more difficult. This band was originally intended to remain principally a television band until the end of the transition and we recognize that it may be inequitable not to process these applications, or a subset of them.<sup>63</sup> In addition, given the significant number of analog and DTV incumbents that already exist on this band, the impact on the provision of new services may be marginal. Therefore, while we do not direct the Mass Media Bureau to suspend processing of applications (with the exception of stations on Channel 59) for new analog stations, we seek comment on our ultimate treatment of the remaining pending applications. For example, we seek comment on whether there are stronger equities for continuing to process any particular subcategory of these pending applications.<sup>64</sup> In addition, if

---

<sup>60</sup> See *Analog TV Filing PN*, 14 FCC Rcd 19559.

<sup>61</sup> *Id.*; *DTV Second MO&O of the Fifth and Sixth Report and Orders*, 14 FCC Rcd at 1367-68, 1369, ¶¶ 40-42, 45; *Upper 700 MHz Reallocation Order*, 12 FCC Rcd at 22971-72, ¶ 40.

<sup>62</sup> See *Analog TV Filing PN*, 14 FCC Rcd 19559; *DTV Second MO&O of the Fifth and Sixth Report and Orders*, 14 FCC Rcd at 1367-68, 1369, ¶¶ 40-42, 45; *Upper 700 MHz Reallocation Order*, 12 FCC Rcd at 22971-72, ¶ 40.

<sup>63</sup> *DTV Sixth Report and Order*, 12 FCC Rcd at 14590, ¶ 1.

<sup>64</sup> If granted, a new station would be grandfathered under the existing broadcast allocation and service rules and would be afforded the same protection as existing NTSC stations, *i.e.*, new services would have to protect the TV broadcast station until the end of the transition. Any of the pending applications granted would have no paired allotment for a DTV channel and would be required to cease analog operations at the end of the DTV transition period. These NTSC stations could also initially operate as digital stations or convert to DTV service during the transition. In either case, the Commission would need to identify in-core relocation channels for their continued (continued....)

such applications are granted, we seek comment on whether we could require these stations to transition to available frequencies below 698 MHz by a date certain, *i.e.*, 2006, to ensure that these stations do not encumber the provision of new services. We particularly seek comment on whether such a requirement would be consistent with our statutory requirements in Section 309(j)(14) of the Communications Act.<sup>65</sup> We also seek comment on whether these applicants (or a particular subset thereof) should be allowed to amend their pending applications through a channel allotment rule making petition to specify a new digital channel in the core that may become available later. With regard to applications pending for stations on Channel 59, we believe that granting more analog station licenses could impact the licensing of new services in the Upper 700 MHz Band due to adjacent channel interference problems.<sup>66</sup> Therefore, for the pendency of this rulemaking proceeding, we direct the Mass Media Bureau to suspend processing of applications and channel allotment petitions for new analog stations on Channel 59, but to allow limited amendments to specify another channel, if available.

### (ii) Digital Stations

25. Because the Commission was unable to accommodate a second digital channel for all broadcasters within the “core” broadcast spectrum, there are a substantial number of digital channels on Channels 52-59 as well. While the planning for the DTV Table of Allotments sought to minimize use of out-of-core channels, it was necessary to make allotments outside this range, particularly in the most congested areas of the country. Thus, there are 165 DTV assignments on Channels 52-59 (includes licenses, construction permits, and pending applications). Also pending, are four DTV allotment petitions filed by entities that originally proposed NTSC operations.

26. While there are roughly the same number of analog stations on Channels 52-59 as there are on Channels 60-69, there are significantly more digital television incumbents. In particular, there are only 20 digital assignments<sup>67</sup> on Channels 60-69 compared to the 165 assignments on Channels 52-59 and this number may increase. As a result, it will be far more difficult for new services to operate on this band, particularly in major metropolitan markets, prior to the end of the transition. In the recently adopted *DTV Periodic Review Order* in the first DTV periodic review, the Commission took steps to try and facilitate the transition so that these incumbents can be relocated.<sup>68</sup> Specifically, the Commission adopted a requirement for broadcasters with both their analog and digital assignments within the “core” to declare the channels they plan to ultimately use

(Continued from previous page) \_\_\_\_\_

operation with DTV service after the transition. *See DTV MO&O of the Fifth Report and Order*, 13 FCC Rcd at 6864-66, ¶¶ 10-16. Any grant made during the pendency of this proceeding will, however, be conditioned on the outcome of this proceeding.

<sup>65</sup> 47 U.S.C. § 309(j)(14).

<sup>66</sup> *See Upper 700 MHz First Report and Order*, 15 FCC Rcd at 532-33, ¶ 141; *see also Upper 700 MHz MO&O and FNPRM* at ¶ 57 n.111.

<sup>67</sup> Fourteen stations are located in the continental United States and six stations are located in Puerto Rico.

<sup>68</sup> *See Review of the Commission’s Rules and Policies Affecting the Conversion to Digital Television*, MM Docket No. 00-39, *Report and Order and Further Notice of Proposed Rulemaking*, FCC 01-24 (rel. Jan. 19, 2001) (establishing election date of December 31, 2004 for commercial stations and December 31, 2005 for non-commercial stations) (*DTV Periodic Review Order*).

after the transition.<sup>69</sup> This will more readily enable the Commission to identify in-core channels for the out-of-core digital assignments currently in Channels 52-69 so that the Commission can clear this spectrum.

### (iii) Low Power Stations

27. There are currently 835 licenses and 244 construction permits for low power television operations on Channels 52-59. In addition, there are 607 applications pending for new low power stations. Many of these pending applications involve requests for replacement channels by low power stations displaced by DTV stations or seeking to vacate the use of TV Channels 60-69 (746-806 MHz). Section 3004 of the BBA 97 states that anyone holding a television broadcast license in the 746-806 MHz band “may not operate at that frequency after the date on which the digital television transition period terminates, as determined by the Commission.”<sup>70</sup> The Conference Report confirms the plain language of the statute: “The conferees recognize that in clearing this band, the Commission will displace not only full-power licensees but also secondary broadcast services, including low-power licensees and television translator licensees.”<sup>71</sup> In our reallocation proceeding for Channels 60-69, we found that this provision leaves us no latitude in clearing LPTV and TV translator stations from the band at the end of the DTV transition period.<sup>72</sup> Section 3004 of the BBA 97 requires the Commission to “seek to assure” that qualifying LPTV stations are assigned a frequency below 746 MHz (TV Channel 60) to permit their continued operation.<sup>73</sup>

28. Throughout the DTV and related proceedings, we have recognized that the DTV transition and the reallocation of spectrum to other services will have a significant impact on LPTV and TV translators. Further, we have recognized that LPTV operators offer important services to specialized and minority audiences, foreign language communities, and rural areas. In this regard, we adopted a number of rule changes in the *DTV Proceeding* to mitigate the impact on these stations.<sup>74</sup> These rule changes included allowing LPTV stations displaced by new DTV stations to apply for suitable replacement channels; considering such applications on a first-come, first-served basis without subjecting them to competing applications; and technical rule changes to provide additional operating flexibility for low power stations.<sup>75</sup> We also stated that any industry negotiation and coordination efforts must be open to all parties, including LPTV stations.<sup>76</sup> While we are committed in this proceeding to take reasonable additional steps to reduce the impact on such operations, we are obligated to facilitate the DTV transition and to reallocate this spectrum as directed under the BBA 97. We seek comment on whether there are additional measures we should consider for LPTV in the

---

<sup>69</sup> *Id.*

<sup>70</sup> See BBA 97 § 3004 (adding new § 337(e)(1) of the Communications Act).

<sup>71</sup> See H.R. Conf. Rep. No. 105-217, 105<sup>th</sup> Cong., 1<sup>st</sup> Sess. at 580; 143 Cong. Rec. H6029 (daily ed. July 29, 1997).

<sup>72</sup> See *Upper 700 MHz Reallocation Order*, 12 FCC Rcd at 22967, ¶ 29.

<sup>73</sup> See BBA 97 § 3004 (adding new § 337(e)(2) to the Communications Act).

<sup>74</sup> See *DTV Sixth Report and Order*, 12 FCC Rcd at 14652-57, ¶¶ 141-47.

<sup>75</sup> *Id.*

<sup>76</sup> *Id.* at 14671, ¶ 182.



698-746 MHz band.

Summary of Channels 52-59 Incumbents					
	Licenses	Construction Permits	Applications & Allotment Petitions	Total	New <sup>77</sup>
NTSC	89	12	57	158	Not Permitted
DTV	17	95	53	165	Not Permitted
LPTV	835	244	607	1,686	Permitted

### b. Interference Protection for Television Services

29. In the *DTV Proceeding*, we stated that all existing analog TV and new DTV stations in the 698-746 MHz band would be fully protected during the DTV transition period.<sup>78</sup> Thus, it will be necessary for licensees in the reallocated spectrum to protect both analog TV and DTV stations in the 698-746 MHz band from interference. If any additional NTSC licenses or construction permits or DTV full service allotments are made as a result of pending petitions, they would be afforded full protection during the DTV transition period.

#### (i) Protection of Analog Stations

30. For the 746-806 MHz (Channels 60-69) band, we adopted a methodology that specifies minimum separation distances based on the various heights and powers of land mobile stations to prevent harmful interference to incumbent analog television operations from new service providers. This methodology has been successfully used in existing land mobile-broadcasting sharing arrangements in the 470-512 MHz band. We used a 40 dB desired-to-undesired (D/U) signal ratio for calculating the co-channel geographic separation requirements.<sup>79</sup> We found this to be a reasonable value that will provide sufficient protection for TV stations, as prescribed by the BBA 97.<sup>80</sup> Co-channel land mobile base station transmitters will be limited to a maximum signal strength at the assumed TV Grade B contour that is 40 dB below the 64 dBu Grade B contour signal

<sup>77</sup> The Commission ended filing opportunities for new NTSC stations effective September 20, 1996. See *supra* para. 22. Amendments to certain of these applications and allotment petitions to change channels, filed prior to the freeze were accepted until July 15, 2000. All requests for new DTV allotments must be filed for in-core channels. However, initially eligible DTV broadcasters are permitted to seek modified allotments, including Channels 52-59. See 47 C.F.R. § 73.622(a). Not included in the counts above are four petitions for NTSC assignments, which have requested to convert their station proposals.

<sup>78</sup> See *DTV Sixth Report and Order*, 12 FCC Rcd at 14626-27, ¶ 80.

<sup>79</sup> See Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communications Requirements through the Year 2010, WT Docket No. 96-86, *First Report and Order and Third Notice of Proposed Rulemaking*, 14 FCC Rcd 152, 221, ¶ 152 (1998) (*Public Safety Service Rule Order*).

<sup>80</sup> *Id.*

strength value, or 24 dBu.<sup>81</sup> We adopted a 0 dB D/U signal ratio for adjacent channel operations.<sup>82</sup> Adjacent channel land mobile transmitters are thus limited to a maximum signal which can equal the TV Grade B signal of 64 dBu at the TV station assumed Grade B contour of 88.5 km (55 miles). A typical TV receiver's adjacent channel rejection is at least 10-20 dB, which will further safeguard TV from land mobile interference. The analog TV protections adopted in the 746-806 MHz reallocation proceeding were based on the need to balance protection for existing broadcasting services, while making this spectrum viable for new services, including public safety. We seek comment on whether we should employ the same method for protecting analog TV stations in the 698-746 MHz band.

### (ii) Protection of Digital Stations

31. In our public safety proceeding, we determined that the same signal strength limits for land mobile operation criteria used for protection of analog stations, *i.e.*, 24 dB $\mu$  co-channel and 64 dB $\mu$  adjacent channel, should also apply for digital stations.<sup>83</sup> These field strength values correspond to co-channel and adjacent channel protection ratios for a DTV station at its 41 dB $\mu$  field strength service contour of 17 dB and - 23 dB, respectively.<sup>84</sup> We note that these determinations are consistent with the *DTV Sixth Report and Order*.<sup>85</sup> There, the Commission specified a minimum geographic separation of 250 km (155 miles) for co-channel operations between DTV stations and the city-center in the areas where there are existing land mobile operations.<sup>86</sup> Section 90.305(a) of our rules provides that full power land mobile base stations can be located up to 80.5 km (50 miles) from the city-center of one of the specified cities.<sup>87</sup> Consequently, under the geographic separation standards adopted in the *DTV Sixth Report and Order*, a land mobile base station could choose to locate its station as close as 169.5 km (250 km - 80.5 km), or 105 miles to a neighboring DTV station. At this distance, a typical land mobile base station would produce an interfering signal at the DTV station's 88.5 km (55 miles) equivalent Grade B contour corresponding to the 17 dB D/U protection ratio specified in the *Public Safety Service Rule Order* to a DTV receiver. Thus, our decision to require land mobile systems to provide signal ratios for DTV stations which will afford approximately the same separation distance as we did for analog TV stations, was considered to represent a reasonable balance between the needs of both DTV stations and new services.

---

<sup>81</sup> In terms of miles, if everything else is the same, a 40 dB D/U ratio rather than a 50 dB D/U ratio allows base stations to be located approximately 48.3 km (30 miles) closer to a co-channel TV station. *See* 47 C.F.R. § 90.309 tbls. A & B.

<sup>82</sup> *See* Development of Operational, Technical and Spectrum Requirements For Meeting Federal, State, and Local Public Safety Agency Communications Requirements through the Year 2010, WT Docket No. 96-86, *Second Notice of Proposed Rulemaking*, 12 FCC Rcd 17706, 17801-805, ¶¶ 230-40.

<sup>83</sup> *See Public Safety Service Rule Order*, 14 FCC Rcd 152.

<sup>84</sup> *See id.* at 222-23, ¶ 155.

<sup>85</sup> *See DTV Sixth Report and Order*, 12 FCC Rcd at 14663-65, ¶¶ 163-65.

<sup>86</sup> *See id.*; *see also* 47 C.F.R. § 90.303(a) (for the areas where TV/land mobile sharing is currently permitted).

<sup>87</sup> *See* 47 C.F.R. § 90.305(a).

32. With regard to this new allocation of the 698-746 MHz band, we seek comment on whether we should adopt the same criteria for protection of DTV stations as we use for protection of analog stations. We are particularly interested in comments addressing the provisions for transmissions that may have the characteristics of a wide band-noise like emission. As demonstrated by the table in Section 73.623(c)(3)(ii), DTV receivers treat co-channel DTV signals as an increase in the noise floor of the desired signal. This increase in noise floor is proportional to the power received from the undesired station. Therefore, in order to maintain the minimum necessary signal-to-noise (S/N) ratio of 15.19 dB, the desired signal level must be increased. Section 73.623(c)(2) of the rules sets forth a value of 15 dB for co-channel interference for DTV into DTV which are only valid at receiving locations where the S/N ratio for the desired DTV signal is 28 dB or greater.<sup>88</sup> At the edge of the DTV noise-limited service area, where the S/N ratio is 16 dB, the value of D/U is 23 dB for interference protection from another DTV station. New land mobile systems operating in this band employing wide band noise like signals may need to provide DTV stations the same increases in protection as indicated in Section 73.623(c)(3)(ii) of the rules.<sup>89</sup>

33. Since we do not know the characteristics (bandwidth and power spectrum shape) of the co-channel threat to DTV in the re-allocated Channels 52-59, we seek comment on whether digital, wide-band emissions from these services in this band could cause interference to possible co-channel DTV operations, and may require the imposition of more restrictive criteria than those provided for under Section 90.545 of the Commission's rules. In particular, we seek comment on the adequacy of 17 dB for co-channel protection of DTV from wide band transmissions or whether we should consider more conservative protection levels.

### c. Coordination with Canada and Mexico

34. The United States has bilateral agreements with both Canada and Mexico setting forth allotment and assignment plans for TV broadcast stations covering the 698-746 MHz band (Channels 52-59). While the U.S. has identified this band for reallocation to new services, neither Canada nor Mexico has done so to date.<sup>90</sup> Pursuant to these agreements, the U.S. must protect the signals of Canadian and Mexican TV broadcast stations located in the border areas, and such operations will therefore affect U.S. non-broadcast use and services in this band. Accordingly, we tentatively conclude that licenses issued for this band will be subject to whatever future agreements the United States develops with these two countries. We further tentatively conclude that, until such time as existing agreements are replaced or modified to reflect the new uses, licenses in this band will be subject to existing agreements and the condition that harmful interference not be caused to, and must be accepted from, TV operations originating in Canada and Mexico. We seek comment on our tentative conclusions.

---

<sup>88</sup> See *id.* § 73.623(c)(2).

<sup>89</sup> See *id.* § 73.623(c)(3)(iii).

<sup>90</sup> A recently-signed Letter of Understanding ("LOU") with Canada recognizes U.S. plans to use this band for other than broadcasting services, and notes that Canada is independently considering a reduction of the spectrum in this band allocated to television. This LOU also specifically provides for non-broadcast allocations and services in the 746-806 MHz bands (Channels 60-69) by establishing criteria to protect DTV stations and analog TV stations established in accordance with the existing TV Agreement (Nov. 3, 1993 – Jan. 5, 1994).

## B. Service Rules

35. One of our primary goals in this proceeding is to establish service rules that will promote innovative services and encourage the flexible and efficient use of this spectrum.<sup>91</sup> In recent years the Commission has implemented our statutory directives under Section 309(j) of the Communications Act by addressing the growing complexities of spectrum management using approaches consistent with general market-based principles. For example, in the Upper 700 MHz proceeding, we were guided by our conclusion in our *Spectrum Reallocation Policy Statement* that a flexible, market-based approach is the most appropriate method for establishing service rules for this band.<sup>92</sup> Similarly, in our recent *Secondary Markets Policy Statement*, we stated that for competition to bring consumers the highest valued services in the most efficient manner, competing users of spectrum need flexibility to respond to market forces and demand.<sup>93</sup> Consistent with the principles underlying the *Spectrum Reallocation Policy Statement* and the *Secondary Markets Policy Statement*, we tentatively conclude that our service rules for this band should implement flexible use for the full range of proposed allocated services, consistent with necessary interference requirements.

36. In seeking to achieve the above objectives, we recognize that our service rules must also take into account the presence of incumbent broadcasters on the Lower 700 MHz Band and the processes we have established in our *DTV proceeding* for relocating incumbent broadcasters into the DTV core spectrum. The 698-746 MHz band is currently used as Channels 52-59 by a significant number of existing full service analog stations, LPTV stations, TV translator and booster stations, and by new DTV stations. These incumbent broadcasters, both analog and digital, may continue to operate on channel allotments in this band until at least December 31, 2006,<sup>94</sup> or the relevant statutory conditions are met that allow incumbents to be relocated to channels in the DTV core spectrum of Channels 2-51.<sup>95</sup> Therefore, the service rules for any new services on the Lower 700 MHz Band must provide for the protection of incumbent television stations during the DTV transition period.<sup>96</sup>

37. We also seek to establish rules that will facilitate, rather than hinder, the clearing of incumbent broadcasters from this spectrum in a manner consistent with our policy goal of locating all television channels in the DTV core spectrum, thus making the band available for a wide range of advanced services. In the Upper 700 MHz proceeding, we considered the use of several voluntary “band clearing” mechanisms, such as the use of secondary auctions to determine the price that would be paid by Upper 700 MHz licensees to TV

---

<sup>91</sup> See, e.g., 47 U.S.C. § 309(j)(3)(D) (Commission to promote efficient and intensive use of the electromagnetic spectrum).

<sup>92</sup> See *Upper 700 MHz Third Report and Order* at ¶ 3 (citing *Spectrum Reallocation Policy Statement*, 14 FCC Rcd 19868).

<sup>93</sup> See *Secondary Markets Policy Statement* at ¶ 8.

<sup>94</sup> See 47 U.S.C. § 309(j)(14)(A).

<sup>95</sup> See *Spectrum Reallocation Policy Statement*, 14 FCC Rcd at 19879-80, ¶ 25; see also *DTV MO&O of the Fifth Report and Order*, 13 FCC Rcd at 6887-88, ¶ 79; *DTV MO&O of the Sixth Report and Order*, 13 FCC Rcd at 7435-37, ¶¶ 42-45.

<sup>96</sup> See *Spectrum Reallocation Policy Statement*, 14 FCC Rcd at 19879-80, ¶ 25.

incumbents who agreed to clear their channels in that band.<sup>97</sup> While we recognize that different circumstances apply to the Lower 700 MHz Band, we are seeking comment in this Notice on potential mechanisms, with the focus on voluntary mechanisms, to encourage the smooth transition from incumbent broadcast services to new services due to the particular circumstances relating to the Lower 700 MHz Band.<sup>98</sup>

38. In this section, we request comment on a number of issues, such as the appropriate relationship between potential uses of the spectrum, the optimal size of the spectrum blocks available for auction, the appropriate size of geographic service areas, any channelization plan, and other characteristics that we should use to define licenses in the Lower 700 MHz Band. Comments should address whether particular characteristics would encourage a variety of technologies and entrants, foster overall licensee flexibility, provide licensees with the maximum number of options to provide service, and promote the other objectives of the Communications Act.<sup>99</sup> In addition, if we were to adopt allocations other than those proposed in this Notice, we seek comment on whether our service rules should provide for all allocated services including, for example, satellite service.<sup>100</sup>

39. While we seek comment from the public in general concerning the matters set forth in this Notice, we specifically seek comment from Indian Tribal governments on the matters contained herein. As detailed in the *Tribal Government Policy Statement*, adopted in June 2000, the Commission is committed to (1) working with Indian tribes on a government-to-government basis to ensure that Indian tribes have adequate access to communications services, and (2) consulting with Tribal governments prior to implementing any regulatory action or policy that will significantly affect Tribal governments, their land, and resources.<sup>101</sup> We believe the matters set forth in this Notice have the potential to foster the development and, ultimately, the deployment of new technologies and services to many communities, including tribal communities. In keeping with the principles of the *Tribal Government Policy Statement*, we welcome the opportunity to consult with Tribal governments on the issues raised by this Notice and we seek comment both from Tribal governments and other interested parties on the potential for the spectrum considerations set forth herein to serve the communications needs of tribal communities.

## 1. Scope of Licenses

### a. Permissible Licensed Services

40. In November 1999, this Commission issued its *Spectrum Reallocation Policy Statement* that sets forth principles to guide our spectrum management activities.<sup>102</sup> We noted that demand has increased

---

<sup>97</sup> See *Upper 700 MHz Third Report and Order* at ¶ 37.

<sup>98</sup> See *infra* Part III.B.6.

<sup>99</sup> See, e.g., 47 U.S.C. §§ 157, 309(j)(3)-(4).

<sup>100</sup> Although we do not make a specific proposal in this Notice concerning an allocation in this band for satellite services, we do seek comment on the issue. See *supra* Part III.A.1.e.

<sup>101</sup> See Statement of Policy on Establishing a Government-to-Government Relationship with Indian Tribes, *Policy Statement*, FCC 00-207 (rel. June 23, 2000) (*Tribal Government Policy Statement*).

<sup>102</sup> See generally *Spectrum Reallocation Policy Statement*, 14 FCC Rcd 19868.

dramatically as a result of explosive growth in wireless communications, and that the Commission must focus on allowing markets to become more efficient in increasing the amount of spectrum available for use.<sup>103</sup> We observed that flexibility could be permitted through the use of relaxed service rules, which would allow licensees greater freedom in determining the specific services to be offered.<sup>104</sup> We further stated that the 698-746 MHz spectrum could be used to make a variety of technologies and services available to the American public.<sup>105</sup> We also note that the BBA 97 grants the Commission the authority to allocate spectrum for flexible use, provided that the Commission makes certain findings.<sup>106</sup> In providing for competitive bidding, we shall seek to promote the development and rapid deployment of new technologies without delay, encourage the efficient and effective use of the spectrum, promote competition, and ensure that new and innovative technologies are readily accessible.<sup>107</sup> In this Notice, we seek comment on the scope of services that should be licensed under the service rules that we adopt for the Lower 700 MHz Band. Comments that are submitted in response to this Notice should address whether our service rules would encourage the active and efficient use of the Lower 700 MHz Band and enable new technologies and services.

41. In this Notice, we emphasize our continued interest in the development of a variety of mechanisms to make spectrum markets more flexible and efficient in the choice of service to be offered by licensees and in the applicable service rules. We seek comment on whether to reallocate this spectrum in the 698-746 MHz band to permit fixed, mobile, and broadcast services on the 698-746 MHz band. We seek to develop service rules that are not based on a Commission prediction of how these bands will ultimately be used, but instead enables us to establish maximum practicable flexibility. Accordingly, we request comment on how innovative service rules and assignment mechanisms can maximize the use of this spectrum. We also seek comment on how new technologies may affect the extent to which service rules effectively provide for flexible, efficient, and intensive use of the spectrum.<sup>108</sup>

42. In the *Upper 700 MHz First Report and Order*, we decided not to adopt service rules that would permit both full power television and wireless services to operate on the Upper 700 MHz Band.<sup>109</sup> We found that the contrasting technical characteristics of full power television broadcasting, using power levels authorized by Part 73,<sup>110</sup> and wireless services effectively preclude the development of interference rules that would enable the practicable provision of both sets of services on the spectrum under consideration in that proceeding.<sup>111</sup> We determined that if there is a disparity between the two services' characteristic power levels

---

<sup>103</sup> *Id.* at 19868, ¶ 2.

<sup>104</sup> *Id.* at 19870, ¶ 9.

<sup>105</sup> *Id.* at 19879-80, ¶ 25.

<sup>106</sup> See 47 U.S.C. § 303(y). This Notice seeks comment on the flexible use considerations in Section 303(y).

<sup>107</sup> See 47 U.S.C. § 309(j)(3)(A)-(B), (D).

<sup>108</sup> See 47 U.S.C. § 309(j)(3)(D).

<sup>109</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 483-87, ¶¶ 15-25.

<sup>110</sup> See 47 C.F.R. Part 73 (Broadcast Radio Services).

<sup>111</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 484-85, ¶ 17.

and between their transmitter heights, these factors would have an impact on the ability of either of the services to provide adequate service.<sup>112</sup> We further found that any substantial disproportion between the power levels of services sharing a spectrum band creates much greater interference difficulties for the lower-power service than when sharing or adjacent-band services operate at comparable power levels.<sup>113</sup> As a result, we adopted service rules primarily directed toward fulfilling the need for a variety of new wireless services. The service rules we adopted provided flexibility to licensees to make determinations respecting the services provided and technologies to be used, including the provision of new broadcast-type service on the band, provided those services comply with the applicable technical rules.

43. We solicit comment in this Notice on the extent to which our service rules can permit both new full power broadcasting, in particular DTV and other digital broadcast operations, and wireless services to operate on the Lower 700 MHz Band. Commenters should consider the interference concerns that we addressed in the Upper 700 MHz proceeding, as well as any other relevant factors. We seek comment on whether the possible technology or technologies used to provide digital broadcast services, such as those using a cellular architecture, would be compatible with wireless services operating on the spectrum. In that regard, we seek comment on whether a 50 kW limit for full power broadcasting would permit both broadcasting operations and wireless services to use this spectrum, yet still allow flexible use of the spectrum consistent with technical and interference requirements. We also request comment on whether service rules that allow licensing of full power broadcasting on the band would affect the efficient use of the spectrum. To what extent would efforts to manage interference between such dissimilar transmissions as full power television and wireless services increase the possibility of substantial spectrum inefficiencies in the band? We also seek comment on whether the licensing of full power broadcasters on this band would impose disproportionate, offsetting burdens on wireless services, both fixed and mobile, and whether full power broadcasting would have a substantial impact on the technical effectiveness and economic practicability of wireless service providers operating on this band. In addition, we seek comment on whether any differences between the Part 27 and Part 73 rules that may affect our determination as to whether the service rules for the 698-746 MHz band should permit both full power television and wireless providers to operate on this band. We note that Sections 309(j)(14)(C) and (D) of the Act, which apply to all spectrum reclaimed as part of the DTV transition, prevents the Commission from declaring any party ineligible, for “any license that may be used for any digital television service” in certain cities, on the basis of our duopoly rule and newspaper cross-ownership rule.<sup>114</sup> We seek comment on the impact of these provisions on our determination of whether and how our service rules can and should permit broadcast and wireless providers to operate on the Lower 700 MHz Band.

44. In the *Upper 700 MHz First Report and Order*, we adopted service rules that addressed the need for a range of wireless applications and recast the Part 27 rules to reflect their revised scope. The Commission decided to allow any new broadcast-type services consistent with the Table of Allocations, provided that such services satisfied our technical and service rules.<sup>115</sup> Such services, to the extent they may be offered, would not

---

<sup>112</sup> *Id.*

<sup>113</sup> *Id.*

<sup>114</sup> See 47 U.S.C. § 309(j)(14)(C)-(D); 47 C.F.R. § 73.3555(b), (d). Because we did not permit the use of the spectrum by full power broadcasting in the Upper 700 MHz proceeding, we had no occasion to consider imposing any eligibility restrictions based on our broadcasting rules.

<sup>115</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 485-86, ¶ 19.

necessarily resemble current radio and television broadcast services subject to Part 73 and 74 of our rules, but could still meet the statutory definition of “broadcasting.”<sup>116</sup> Because such new broadcast-type services would necessarily use lower power levels than even existing low-power television service, and may differ significantly in both technical and public policy respects from full power broadcasting, we did not seek to anticipate or develop a regulatory framework beyond the technical and operational rules that were adopted in the Upper 700 MHz proceeding or that already applied to broadcast services in general. However, we did remind potential applicants for such new broadcast-type services that compliance with Part 27 technical standards did not alter the underlying nature of such services, or the licensees’ related regulatory and statutory obligations.<sup>117</sup> We seek comment on whether to license new broadcast-type service on the Lower 700 MHz Band.

45. In this Notice, we do not make a specific proposal concerning an allocation in the Lower 700 MHz Band for satellite service, but request comment on the matter. In the event that an allocation is made in this band for satellite service, we seek comment on whether auction winners should be afforded the flexibility to deploy satellite services, either themselves or by agreement with a satellite operator, within their licenses’ geographic area, provided that such operations do not cause unacceptable interference to services operating in adjacent geographic areas.<sup>118</sup> Further, if an allocation is made in this band for satellite service, we seek comment on the service rules that would apply to such service.

#### **b. Size of Spectrum Blocks for Each License**

46. We seek comment on the appropriate amount of spectrum for each license in the 698-746 MHz band. Should we license, for example, the spectrum as a single 48 megahertz block or should it be licensed as two or more smaller blocks?

47. We seek comment first on whether the utility, and therefore value, of the spectrum would be enhanced by providing for the auction of a single block. A spectrum block of such size would seem to minimize the potential for third-party interference and thereby minimize the needed scope of our interference rules. In this regard, given the difficult incumbency issues associated with this band, we seek comment on whether economics associated with being a licensee of a large block of spectrum would make it easier for the licensee to develop services around existing incumbents, clear the band of incumbents, and generally deal with interference issues in the band. We also request comment on whether a single licensee, as opposed to numerous licensees, would be more likely to successfully negotiate the clearing of incumbent broadcasters from the spectrum. Would it be in the public interest to leave the determination of the internal framework of the 698-746 MHz band to one licensee? Comments should address both the possible and expected scope of use by a single 48 megahertz licensee. Commenters should identify the range of services that could be offered if we employ a license of this size. In addition, we seek comment on what spectrum block size would best facilitate

---

<sup>116</sup> See *id.* at 483 n.37. We noted that under the Act, the term “broadcasting” means the dissemination of radio communications intended to be received by the public, directly or by the intermediary of relay stations. See 47 U.S.C. § 153(6).

<sup>117</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 494, ¶ 43 n.95, 509, ¶ 81 n.188.

<sup>118</sup> Cf. *3650-3700 MHz First Report and Order*, *supra* note 52.



the “reasonable and timely”<sup>119</sup> deployment of broadband applications which may be spectrum-intensive.

48. We seek comment, alternatively, on whether we should establish two or more blocks to license this spectrum, and what should be their size. We seek comment, for instance, on whether the spectrum should be licensed in two blocks of 24 megahertz each. Commenters also should address whether a block of 12 megahertz or more is required to provide access to a wide range of advanced telecommunications services. In addition, they should explain whether a block of six megahertz is necessary to enable wireless telecommunications services, or a viable digital television service. Licensing based on smaller spectrum blocks may be preferable for rural and small carriers. Parties who prefer smaller spectrum block sizes to larger blocks should identify the advantages that licensing based on smaller spectrum blocks would have on potential auction participants. If commenters support licensing based on spectrum blocks other than those we discuss herein, they should state why other size spectrum blocks are more appropriate. The comments also should address the impact that the size of the spectrum blocks will have on the services that may be provided on this band, especially given the difficult incumbency issues.

49. Comments are invited on whether we should adopt a licensing plan for this band that provides for different sized blocks. The comments should address whether this approach could improve spectrum efficiency, offer greater flexibility in the use of spectrum, increase the diversity of services offered to consumers, and facilitate the development of advanced telecommunications services.

50. We also seek comment generally on the minimum size of spectrum blocks needed to enable competitive commercial services. In this regard, we note that our simultaneous multiple round and combinatorial (or “package”) auction design generally offers bidders substantial flexibility to aggregate blocks of spectrum for their particular uses.<sup>120</sup> We seek comment on whether in light of the auction designs that may be available, we should define spectrum block sizes that would require bidders to aggregate spectrum at auction to achieve the most efficient result. Such an approach may provide bidders with greater flexibility to implement their plans, as compared with the Commission’s traditional approach toward defining spectrum blocks, which attempts to define optimal block size and allows adjustments through secondary market mechanisms, such as disaggregation, if such fine-tuning is necessary.

51. Commenters should consider the relationship between the amount of spectrum per license and the ability to protect existing broadcast operations in this band during the transition to DTV. The comments should address how the size of the spectrum blocks will affect the licensees’ ability to deploy new, innovative services

---

<sup>119</sup> See Section 706 of the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 153 § 706 (set forth at 47 U.S.C. § 157 nt.)

<sup>120</sup> Package bidding may take many forms. Under the design that the Wireless Telecommunications Bureau has developed for the upcoming 700 MHz band auction (Auction No. 31), bidders are not restricted to placing bids on individual licenses, but may also place all-or-nothing bids on packages of licenses. See Auction of Licenses in the 747-762 and 777-792 MHz Bands Scheduled for September 6, 2000; Procedures Implementing Package Bidding For Auction No 31, *Public Notice*, 15 FCC Rcd 11526 (2000) (describing package bidding procedures for 700 MHz band auction). Under this approach, for example, a bidder desiring to inaugurate a nationwide service could bid on a package of licenses that covers the entire nation and not face the risk of winning only some of the desired licenses and paying more than the bidder values those licenses by themselves (without the other licenses needed to provide nationwide coverage).

and the impact that the size of the spectrum blocks may have on the ability of licensees to compete with existing fixed and mobile service providers. The comments also should consider the need to preserve licensee flexibility in technical and service application choices.

52. In light of the presence of incumbent broadcasters on this band, we seek comment on whether spectrum blocks of six megahertz could be aligned in the 698-746 MHz band plan to correspond with individual six megahertz television channels. We request comment on whether our adoption of six megahertz blocks as an appropriately-sized spectrum block would facilitate clearing of the band by incumbent broadcasters or otherwise enhance the value of the spectrum. In addition, in this Notice, we seek comment on the possibility of a guard band or some other form of protection for services provided below this 698-746 MHz band, on television Channel 51. We request comments on the impact of the adoption of service rules in this proceeding on the incumbent use of Channel 51.

### c. Size of Service Areas for Geographic-Area Licensing

53. We tentatively conclude that we should adopt a geographic area licensing approach to assign licenses in the 698-746 MHz band. In contrast to station-defined licensing (*i.e.*, site-by-site licensing), our experience has been that geographic area licensing affords licensees substantial flexibility to respond to market demand and may result in significant improvements in spectrum utilization. Geographic licensing provides licensees with flexibility to dynamically adjust spectrum usage depending upon market conditions, and thus maximize the use of spectrum in areas of highest demand. These same adjustments may be significantly more difficult under a site-by-site licensing regime where prior Commission approval is needed before a licensee can modify its service and coverage. Geographic area licensing schemes have been employed in a number of services with which licensees in the 698-746 MHz band may potentially compete.<sup>121</sup> In addition, consistent with Part 27, we adopted a geographic licensing approach for the 746-764 and 776-794 MHz bands in the Upper 700 MHz proceeding.

54. Assuming that we utilize a geographic area approach for the 698-746 MHz band, we seek comment on the appropriate size of service areas on which licenses should be based. Should we license, for example, all or part of the 48 megahertz of reallocated spectrum on a nationwide basis, or would smaller geographic license sizes be more appropriate for this spectrum?

55. We seek comment, first, on a possible nationwide license. Nationwide licenses have the advantage of providing carriers with more flexibility in the buildout of their services, as well as in coordinating with incumbents. In this regard, we seek comment on whether any problems associated with the operation of the many incumbent TV stations in this band may be better addressed by licensing this spectrum in larger areas where there may be less of a need for complicated protection agreements. Does the presence of a large number of broadcasters in the 698-746 MHz band make nationwide licenses more desirable than regional or other license sizes? We also seek comment on the extent to which nationwide licenses maximize the opportunity to provide the widest array of services and business plans. Do nationwide geographic licensing areas, especially in light of our proposal to permit partitioning<sup>122</sup> and our seeking comment about spectrum leasing,<sup>123</sup> provide

---

<sup>121</sup> See, e.g., *infra* paras. 55-57 (describing geographic license areas for various broadband Commercial Mobile Radio Services ("CMRS")).

<sup>122</sup> In light of the variety of potential services that we envision will use this reallocated band, including emerging technologies or next-generation applications, the most desirable or efficient scale of service area may vary (continued....)

the necessary incentives for fostering the growth of existing technologies while encouraging the development of new applications? Would the adoption of nationwide geographic licensing areas provide potential savings to the time and cost of developing applications and manufacturing equipment to operate in the 698-746 MHz band?

56. In the Upper 700 MHz proceeding, the Commission chose six large, regional Economic Area Groupings (“EAGs”) for the 747-762 MHz and 777-792 MHz bands.<sup>124</sup> The use of regional licenses may permit licensees to take advantage of the opportunities afforded by licensing spectrum on a wide regional basis. Accordingly, we request comments that address the possibility of issuing large, regional licenses in the 698-746 MHz band. Are the six EAGs the appropriate license size for this reallocated band?<sup>125</sup> Are EAGs (or other regional licenses) preferable to nationwide licenses because they may more easily allow partitioning to serve the needs of smaller users and regional communities? If we adopt six regional EAGs, we seek comment on what would be the optimal spectrum block size. Commenters should address whether blocks of 48 megahertz, 24 megahertz, or smaller sizes would be appropriate for regional EAGs. We note that our simultaneous multiple round and combinatorial or package bidding auction designs generally offer bidders flexibility to aggregate multiple licenses to cover larger geographic areas for their particular uses. Would the opportunity to aggregate a small number of regional licenses be sufficient for those seeking to build a nationwide footprint? We invite comment on how to define an appropriate geographic service area in light of the various types of bidding procedures that the Wireless Telecommunications Bureau now has at its disposal.

57. Commenters should also address whether smaller geographic license sizes are appropriate for all or a subset of this spectrum. For example, the Commission has licensed spectrum using smaller territories defined by the 306 Metropolitan Statistical Areas (“MSAs”) and 428 Rural Statistical Areas (“RSAs”), and the 172 EAs and three EA-like areas. When combined, the MSA and RSA service areas create the 734 geographic areas that were originally used to license cellular service.<sup>126</sup> Rural and smaller carriers may prefer licensing based on small geographic areas.<sup>127</sup> If so, which license sizes are preferable to the larger, regional

(Continued from previous page) \_\_\_\_\_

according to the business plan of the potential licensee. Therefore, some licensees may need smaller service areas. We tentatively conclude below to allow post-auction partitioning of licenses for bidders whose business plans require different size geographic areas than are adopted here. *See infra* Part III.B.3.g.

<sup>123</sup> *See infra* Part III.B.3.a.

<sup>124</sup> *See Upper 700 MHz First Report and Order*, 15 FCC Rcd at 500, ¶ 56. The six EAGs are based on Economic Areas (“EAs”).

<sup>125</sup> In addition to the six EAGs, the Commission has used regional approaches to license spectrum in the 12 Regional Economic Areas (“REAs”) and the 52 Major Economic Areas (“MEAs”). *See* Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Services (“WCS”), GN Docket No. 96-228, *Report and Order*, 12 FCC Rcd 10785, 10814-16, ¶¶ 54-60 (1997). REAs and MEAs are based on the 172 EAs, as modified by the Commission.

<sup>126</sup> The 172 EAs are defined by the U.S. Department of Commerce, while the three additional EA-like areas are defined by the Commission. The Commission has issued certain Specialized Mobile Radio (“SMR”) licenses based on EAs.

<sup>127</sup> *See, e.g., Upper 700 MHz First Report and Order*, 15 FCC Rcd at 499, ¶55.

license sizes? Should we license part of the 48 megahertz of spectrum on a large regional (or national) basis and the remaining part of the band in geographic areas of a medium or smaller scale? If commenters support licensing based on service territories other than those discussed above, they should discuss why other types of service areas are more appropriate. In addition, we seek comment on the impact that the size of the service area will have on the participation in the auction by parties that may be eligible for the Commission's designated entities provisions.<sup>128</sup>

58. We also seek comment on whether we should license the Gulf of Mexico as part of larger service areas, as we did for the Upper 700 MHz Band, or whether we should separately license a service area or service areas to cover the Gulf of Mexico. Commenters who advocate a separate service area or areas to cover the Gulf of Mexico should discuss what boundaries should be used and whether special interference protection criteria or performance requirements are necessary due to the unique radio propagation characteristics and antenna siting challenges that exist for Gulf licensees.

59. We seek comment on the possible impact that broadcast use of this spectrum would have on the determination of the appropriate geographic service area. We seek comment elsewhere in this Notice on service rules that may permit the 698-746 MHz band to be used by both full power broadcasting and wireless services.<sup>129</sup> Parties who believe that such combined use should be permitted should first comment on the various choices we are considering in this proceeding for Part 27 geographic license areas and spectrum blocks and the impact that this scheme would have on the concept of a station's serving the needs and interests of its community of license pursuant to Part 73.<sup>130</sup> Those parties should also comment on any relation between our geographic service area and spectrum block decisions and the combined use of these bands by CMRS and full power broadcast services, which operate using significantly different power levels. We seek comment on how any decisions regarding spectrum channelization and power levels, if combined use were to be permitted, would affect the appropriate size of geographic licenses, in contrast to limiting or precluding broadcast use of the spectrum. We also seek comment on alternatives that would rely on licensing by geographic area, by community of license, or by some combination of these approaches.

#### **d. Paired or Unpaired Spectrum Bands**

60. In the Upper 700 MHz proceeding, we determined that spectrum blocks be established and licenses be assigned on the basis of paired bands.<sup>131</sup> We configured the 30 megahertz of spectrum in two paired bands: a 10 megahertz band, designated Block C, and a 20 megahertz band, designated Block D. Each paired band constituted a spectrum block on which auction bids would be based in an EAG. Our decision to adopt this paired band architecture reflected an assessment that the most commonly-used transmission procedure for Personal Communications Services ("PCS"), cellular, and other established mobile and fixed wireless

---

<sup>128</sup> See *infra* Part III.B.5.b.

<sup>129</sup> See *supra* Part III.B.1.a.

<sup>130</sup> See also *supra* Part III.B.1.b.

<sup>131</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 493-94, ¶¶ 40-42; *Upper 700 MHz MO&O and FNPRM* at ¶ 12.

applications, Frequency Division Duplex (“FDD”), requires paired spectrum.<sup>132</sup> As discussed below, on reconsideration in the Upper 700 MHz proceeding, we revised our rules to enable Time Division Duplex (“TDD”) based technologies to use unpaired bands, or both bands.<sup>133</sup>

61. If we decide that the spectrum in the 698-746 MHz band should be licensed in two or more blocks, should the spectrum be offered as contiguous or paired blocks and, if paired blocks, should the blocks be symmetric or asymmetric in size? We seek comment on the extent to which the spectrum should be paired or unpaired to enable viable commercial wireless services. Given bidders’ opportunities to aggregate licenses under our simultaneous multiple round, combinatorial, and package auction designs, how would the adoption of either a paired or unpaired band structure impact the Commission’s ability to achieve its spectrum management goals, including flexible and efficient spectrum use.<sup>134</sup> We request comment on the degree to which paired or unpaired bands are suited to new technologies, particularly such technologies that would enhance the offering of advanced wireless telecommunications services. Comments should address the particular requirements of the various services and their technologies, including transmission procedures such as FDD or TDD, that would use this spectrum, and the impact on such services and technologies of our adopting either a paired or unpaired band architecture.

62. We seek comment on the extent to which the power limits that are to be established in this rulemaking should affect our adoption of a paired or unpaired band structure. In the Upper 700 MHz proceeding, we allowed 1000 watt effective radiated power (“ERP”) base and fixed stations in both the lower and upper bands, and 30 watt ERP mobile and control station, as well as 3 Watts ERP portables, in both the upper and lower bands.<sup>135</sup> We found that such power limits would enable both base and mobile transmitters on both the upper and lower bands, and thus permitted TDD-based technologies to use either the upper or lower bands, or both, as circumstances warrant. If we decide to adopt a paired band architecture for the 698-746 MHz band, should we enable the use of both base and mobile transmitters on both bands? Furthermore, should we use the same power limits as we adopted in the Upper 700 MHz proceeding, or should some other power limits be authorized instead? To what extent should we adopt power limits or out-of-band emission limits for the 698-746 MHz spectrum that are aimed at enabling TDD operations, or operations that are based on some other form of technology? Comments should address both the methodology to be used, *e.g.*, whether the power limits should be the same or different for the two bands, and the specific power levels to be adopted.

63. We request comment on the impact that our decisions on the size of spectrum blocks and of the service area should have on our decision on whether to adopt paired or unpaired spectrum bands. For example, would the adoption of smaller spectrum blocks be more or less appropriate in a paired band structure than in an unpaired band structure? Would a decision to license blocks that are large enough for full power broadcast service and to permit sharing of the spectrum by wireless and full power broadcast providers have an impact on our decision to license spectrum on a paired or unpaired basis?

---

<sup>132</sup> *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 494, ¶ 42.

<sup>133</sup> *Upper 700 MHz MO&O and FNPRM* at ¶ 10.

<sup>134</sup> *See* 47 U.S.C. § 309(j)(3)(D).

<sup>135</sup> *Upper 700 MHz MO&O and FNPRM* at ¶ 10.

64. We also solicit comment on whether and to what extent the use of paired or unpaired spectrum bands would accommodate entities seeking to negotiate voluntary transition agreements with incumbent television licensees that could enable the clearing of such incumbent licensees from the 698-746 MHz band. Comments should address whether such efforts to facilitate transition agreements are consistent with our objectives of seeking to promote the rapid development of new technologies and the efficient and effective use of the spectrum.<sup>136</sup>

## 2. Technical Rules

### a. General Technical Rules

65. We seek comment on whether the general provisions of Part 27 of the rules should be applied to the 698-746 MHz band, and specifically on any rules that would be affected by our proposal to apply elements of the Part 27 framework, whether separately or in conjunction with Part 73 requirements, to full power broadcast services, or to any other parts of our rules. We solicit comment concerning the appropriate rules to adopt for co-channel interference control, out-of-band<sup>137</sup> and spurious emission<sup>138</sup> limits, and power limits and radiofrequency (RF) safety requirements. The comments also should address whether all of these technical rules would apply to all licensees in the 698-746 MHz band, including licensees who acquire their licenses through partitioning or disaggregation.

### b. Co-Channel Interference Control

66. Historically, the Commission has issued rules governing the technical and operating parameters of radio transmitters in order to reduce to a pre-determined level the interference between licensees using the same spectrum assignment in adjacent geographical locations.<sup>139</sup> This methodology of interference control generally is most successful where the type of service provided and technology used by geographically adjacent licensees are established by rule and reasonable assumptions can be made about the technical characteristics of receivers that will be used.

67. Recently, the Commission has established new broadband wireless services<sup>140</sup> wherein licensees

---

<sup>136</sup> See 47 U.S.C. § 309(j)(3)(A), (D).

<sup>137</sup> An “out-of-band emission” is an “[e]mission on a frequency or frequencies immediately outside the necessary bandwidth which results from the modulation process, but excluding spurious emissions.” 47 C.F.R. § 2.1(c).

<sup>138</sup> A “spurious emission” is an “[e]mission on a frequency or frequencies which are outside the necessary bandwidth and the level of which may be reduced without affecting the corresponding transmission of information. Spurious emissions include harmonic emissions, parasitic emissions, intermodulation products and frequency conversion products, but exclude out-of-band emissions.” *Id.* § 2.1(c).

<sup>139</sup> The objective of most of the Commission’s traditional interference control rules is to maintain, within a high probability, the ratios of the strength of the desired signal to the strength of the undesired or interfering signals (*i.e.*, D/U ratio) at any location on the outer boundary of a service area above pre-determined minimums.

<sup>140</sup> See, *e.g.*, 47 C.F.R. Part 24 (Personal Communications Services); 47 C.F.R. Part 27 (Miscellaneous Wireless Communications Service).

are authorized to utilize any technology satisfying basic technical rules<sup>141</sup> to provide any type of fixed or mobile service. For these flexible use services, substantially different services and technologies could be utilized in close proximity by geographically adjacent licensees. The multiplicity of existing and future technologies and services that could be deployed side-by-side in a flexible use service may increase the possibility for interference, thus raising the question of whether it is practical to devise rules intended to limit interference in the traditional sense (*i.e.* to a pre-determined level) for all potential interference.<sup>142</sup> This Notice seeks comment on a wide range of uses in the Allocation Table. Accordingly, we are potentially allowing a broad range of technologies and services for possible co-existence within this spectrum, and the nature of the services and technologies can affect the potential for interference between licensees using the same spectrum in adjacent service areas. We are particularly interested in receiving comments on potential interference issues that could arise in the event that we decide to reallocate the 698-746 MHz band for use by fixed, mobile, and broadcast services or any combination of these services.

68. The Commission has adopted rules employing one or the other of two methods for broadband fixed and mobile services in regard to addressing the issue of co-channel interference between adjacent systems. In the Cellular Radiotelephone Service, the Commission has mandated that adjacent users coordinate spectrum usage by facilities within 121 kilometers (75 miles) of each other and to resolve technical problems that may inhibit effective and efficient use of the spectrum.<sup>143</sup> This method is a coordination requirement.<sup>144</sup> In the Personal Communications Service and the Wireless Communications Service, the Commission has instead adopted rules requiring that the licensees limit the strength of their signals (“field strength”) to some prescribed value at the boundary of their geographical license area.<sup>145</sup> Provided that the specified field strength limit is met, licensees may unilaterally deploy facilities in the boundary area without coordinating with adjacent licensees.<sup>146</sup> This latter method is the field strength limit.

69. In the Upper 700 MHz proceeding, the Commission adopted a field strength limit rather than a coordination requirement to control co-channel interference in the band.<sup>147</sup> The Commission found that a

---

<sup>141</sup> Generally, these are rules that address out-of-band emissions, which are intended to limit the potential for interference with services operating in other parts of the spectrum.

<sup>142</sup> Minimum D/U ratios, which are the basis for traditional FCC interference rules, are mathematically determined for each service by considering factors representing the required quality of service, the specific type of modulation and demodulation employed, the emission bandwidth, and anticipated propagation path variables (*e.g.*, fading). However, these necessary factors are not specified in a flexible use service.

<sup>143</sup> See 47 C.F.R. § 22.907.

<sup>144</sup> Service may be provided without harmful interference in intersystem border areas if licensees, each with detailed knowledge of the particular service and technology that they have decided to use, coordinate their spectrum usage near the border areas, especially where technologies and services differ.

<sup>145</sup> See 47 C.F.R. §§ 24.236, § 27.55.

<sup>146</sup> The use of a field strength limit does not necessarily prevent interference from occurring, but does allow licensees to have some idea of the worst-case undesired field strengths that could be encountered at the border of their systems.

<sup>147</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 515, ¶ 96.

coordination method could impose unnecessary coordination costs in the case of facilities that were unlikely to cause interference, and possibly could lead to anti-competitive activities.<sup>148</sup> The Commission also determined that the field strength limit will apply to base and fixed stations,<sup>149</sup> the maximum field strength permitted along the geographic area border will be 40 dB $\mu$ V/m,<sup>150</sup> and that issues of compliance will be determined by calculations using the TV broadcast field strength curves.<sup>151</sup> The use of this procedure was found to potentially enable licensees to deploy their facilities effectively, while minimizing interference to co-channel licensees in adjacent areas.<sup>152</sup> We seek comment on whether this universal field strength limit rule will in fact *minimize* interference between all adjacent systems using the same or overlapping spectrum regardless of what types of service, technologies, emission types or power levels are used.

70. We seek comment on whether we should adopt rules establishing a boundary field strength limit to control co-channel interference in the 698-746 MHz band. If we were to choose this method, what should be the field strength limit? Should it be 40 dB $\mu$ V/m or some other value?<sup>153</sup> We request comment on whether a field strength limit would reduce the need for coordination by giving licensees the ability unilaterally to deploy facilities in boundary areas as long as the limit is met. We also seek comment on whether a field strength limit by itself may provide insufficient assurance against interference among co-channel licensees. Even with a boundary limit, would some degree of coordination and joint planning between bordering licensees be needed to ensure efficient use across the boundary? To the extent such coordination between adjacent licensees is likely to be needed, to what extent can we rely on purely voluntary procedures to reach efficient results? Would any rules or guidelines be beneficial in facilitating such coordination? We also seek comment on whether we should adopt criteria to protect Lower 700 MHz stations employing video broadcasting similar to the protection criteria that we establish herein to protect incumbent DTV stations.

71. We seek comment on whether we should adopt a coordination requirement instead of a field strength limit to control co-channel interference in this band. In the event we decide to use a coordination requirement, how far from the boundary should the coordination zone be located? Would a general coordination requirement minimize the potential for interference or impose unnecessary coordination for

---

<sup>148</sup> *Id.*

<sup>149</sup> *Id.* The field strength limit adopted therein does not apply to mobile stations.

<sup>150</sup> *Id.* at 515, ¶ 97. The choice of 40 dB $\mu$ V/m was based on the Commission's previous use of that value for 800 MHz EA-based and 900 MHz MTA-based SMR licensing. The Commission found that services likely to be provided in the 747-762 MHz and 777-792 MHz bands are similar to SMR and noted the proximity of those bands.

<sup>151</sup> *Id.* at 515, ¶ 97 n.225. The Commission determined that the predicted 40 dB $\mu$ V/m field strength shall be calculated using Figure 10 of Section 73.699 of the Commission's rules, 47 C.F.R. § 73.699, with a correction factor of minus 9 dB, for antenna height differential.

<sup>152</sup> *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 515, ¶ 97. Minimizing interference means reducing it to the lowest possible level.

<sup>153</sup> The field strength value could be scaled to account for the difference in effective area of a half-wavelength antenna for the frequency range involved. Using, for example, a scaling factor of 20 log F would suggest that a field strength of 39 dB $\mu$ V/m for the 698-746 MHz band is comparable to 40 dB $\mu$ V/m for the 747-762 MHz and 777-792 MHz bands.



facilities with a low potential for interference under either approach?

72. Commenters should provide an analysis of the advantages and disadvantages of both approaches, or approaches that combine a boundary limit and coordination procedure. We seek comment, for example, on whether anti-competitive behavior could result from our adoption of either approach. Moreover, how do the two methodologies compare in terms of their effect on licensee costs? The comments should address these questions in the context of whether one method or the other would enable licensees to deploy their facilities effectively, while minimizing interference to co-channel licensees in adjacent geographic areas. We also seek comment on whether there are methods to control interference in the Lower 700 MHz Band that would be more effective than coordination or boundary field strength limits.

73. In the event that we adopt a field strength methodology, we seek comment on whether licensees in adjoining areas should be permitted to agree to alternative field strengths at their common border. If we were to agree to such a procedure, what would be the impact in terms of increased flexibility and harmful interference? We invite comment on this approach to control interference in the context of the 698-746 MHz band, both generally and if used in conjunction with field strength standards. Should we adopt a general coordination approach is adopted, comments are requested on whether specific aspects of procedures, such as those contained in Section 22.150 of the Commission's rules,<sup>154</sup> should apply or, alternatively, whether a general requirement such as the cellular rule<sup>155</sup> should apply.

74. Section 27.64 of the Commission's rules<sup>156</sup> states generally that Part 27 stations operating in full accordance with applicable Commission rules and the terms and conditions of their authorizations are normally considered to be non-interfering, and provides for Commission action, after notice and hearing, to require modifications to eliminate significant interference. In view of the variety of services that might be provided by Part 27 licensees on this band, including broadcasting, we solicit comment on whether we should apply this rule for this spectrum. We also seek comment regarding whether interference protection can be achieved and whether Section 27.64 of our rules should be modified to direct adjacent service area licensees to cooperate to eliminate or ameliorate interference. This alternative would require each licensee ultimately to assume responsibility for protecting its own receiving system from interference from transmitters in adjoining areas that meet our standards.

75. We seek comment on what interference criteria should be established in the event we adopt service rules that permit full power broadcasting<sup>157</sup> and wireless services to sharing the 698-746 MHz band. We also seek comment on whether we should adopt any protection of television service provisions addressed elsewhere in the Notice into the co-channel interference rule.

---

<sup>154</sup> 47 C.F.R. § 22.150.

<sup>155</sup> *See id.* § 22.907.

<sup>156</sup> *Id.* § 27.64.

<sup>157</sup> By full power television broadcasting, we mean a television broadcast station transmitting with more than 1000 Watts ERP. *See Upper 700 MHz First Report and Order*, 15 FCC Rcd at 484-85, ¶ 17 n.43.

### c. Out-of-Band and Spurious Emission Limits

76. In many of our radio services, the Commission often requires that out-of-band emissions be limited to no more than 50 microWatts (50  $\mu$ W) of transmitter output power over a typical instrument measurement bandwidth.<sup>158</sup> The rules that implement this requirement generally do so in the form of an attenuation requirement of  $43 + 10 \log P$  dB. In the Upper 700 MHz proceeding, the Commission adopted this general out-of-band emission limit to apply to equipment transmitting in the 747-762 and 777-792 MHz bands that were the subject of the service rules under consideration.<sup>159</sup> However, we also adopted more strict limits for out-of-band emissions that fall within the Global Positioning Service (“GPS”) band<sup>160</sup> and within the 764-776 MHz and 794-806 MHz public safety bands.<sup>161</sup> We invite comment on what out-of-band emission standards should be established in our service rules for the Lower 700 MHz Band. We seek comment on whether we should adopt a rule applying our general out-of-band emission attenuation requirement of  $43 + 10 \log P$  dB to equipment used in the 698-746 MHz band. What are the potential costs and benefits of requiring greater or lesser attenuation of out-of-band emissions? We also request comment on any other emission limits that commenters believe to be appropriate. For example, should the limit specify a single out-of-band attenuation level or should it specify a power roll-off that increases attenuation as frequency separation from the channel boundary increases?

77. In the Upper 700 MHz proceeding we found that stricter attenuation requirements were required to adequately protect the public safety bands from interference.<sup>162</sup> We adopted an attenuation requirement of  $65 + 10 \log P$  dB per 6.25 kHz for mobile and portable transmitters, and an attenuation requirement of  $76 + 10 \log P$  dB per 6.25 kHz for base and fixed transmitters for out-of-band emissions that fall within the 764-776 MHz and 794-806 MHz public safety bands.<sup>163</sup> In this Notice, we request comment on whether it is necessary to adopt a rule, applicable to equipment transmitting in the 698-746 MHz band, that provides more stringent attenuation requirements for out-of-band emissions that fall within the 764-776 MHz and 794-806 MHz public safety bands. We seek comment on whether equipment transmitting in the upper portion of the 698-746 MHz commercial band poses a risk of interference to public safety operations that justifies adoption of these more

---

<sup>158</sup> This requirement is expressed in our rules as an attenuation formula, which is:

$$A = 43 + 10 \log P$$

where A is the required minimum attenuation of the emission below the total in-channel transmitter power output power, expressed in decibels (dB), and P is the total transmitter output power, in Watts. For very high powered transmitters, there may also be an alternative maximum attenuation requirement, for example 80 dB.

<sup>159</sup> *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 518, ¶ 103.

<sup>160</sup> The second harmonic frequency range of the Lower 700 MHz Band does not include the GPS band, as does the Upper 700 MHz Band. Thus, there does not appear to be a question of any impact on GPS in this proceeding.

<sup>161</sup> *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 519-20, ¶¶ 105-07.

<sup>162</sup> *See id.* at 519-20, ¶ 106; *see also Upper 700 MHz MO&O and FNPRM* at ¶¶ 21-27.

<sup>163</sup> *See Upper 700 MHz First Report and Order*, 15 FCC Rcd at 519-20, ¶ 106; *see also Upper 700 MHz MO&O and FNPRM* at ¶¶ 21-27.

stringent attenuation requirements. We also seek comment on what resolution bandwidth should be used for measurements to determine compliance with the out-of-band emission limits.

#### d. Power Limits and RF Safety

78. In the Upper 700 MHz proceeding, the Commission concluded that with regard to communications power requirements, equipment transmitting in the 747-762 MHz and 777-792 MHz bands will have characteristics similar to equipment used in other services in the sub-microwave UHF frequency bands. Accordingly, rules were adopted that provided a maximum power limit of 1000 Watts ERP for base and fixed stations, 30 Watts ERP for vehicular mobile transmitters and 3 Watts ERP for hand held portable transmitters.<sup>164</sup> We request comment on whether these limits are also appropriate for base, fixed, mobile and portable transmitters operating in the 698-746 MHz band, or whether some other limits should be adopted. As indicated above, we also seek comment on the use of up to 50 kW ERP for video broadcasting in this band.<sup>165</sup>

79. The Commission considers RF safety procedures to be essential in protecting human beings from excessive exposure to RF energy. Accordingly, we propose to require that facilities and devices operating in the Lower 700 MHz Band be subject to the existing RF safety criteria and procedures applicable to facilities and devices having similar technical parameters and operating characteristics.<sup>166</sup> We seek comment on this proposal.

### 3. Licensing Rules

80. We seek comment below on the licensing rules for a full range of possible licensees, in accordance with our stated intention to permit as much flexibility in the use of this spectrum as is consistent with the requirements of Section 303(y) of the Communications Act.<sup>167</sup> We seek comment generally on whether licensees in the reallocated 698-746 MHz band should be governed by Part 27 of the Commission's rules. Part 27 was established to satisfy the requirement in Section 3001 of the Omnibus Consolidated Appropriations Act of 1997 to reallocate and assign the use of the frequencies at 2305-2320 MHz and 2345-2360 MHz. Part 27 was initially adopted to govern services offered on those bands, and accorded licensees the flexibility to provide any fixed, mobile or radiolocation service contained in the Table of Allocations in Part 2 of the Commission's rules. The regulatory framework of Part 27 includes, *inter alia*: (i) the limitation of eligibility requirements to foreign ownership restrictions set forth in Section 310 of the Communications Act; (ii) exclusion of Part 27 spectrum holdings from application of the CMRS spectrum cap; (iii) flexibility to partition geographic service areas and disaggregate spectrum blocks; (iv) determination of regulatory status by licensee's designation in their long-form applications; and (v) incorporation, with some exceptions, of the competitive bidding rules set forth in Part 1 of the Commission's rules. We adapted and applied the Part 27 licensing procedures to the 746-764 MHz and 776-794 MHz bands in our Upper 700 MHz proceeding.

---

<sup>164</sup> *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 521-22, ¶ 111.

<sup>165</sup> *See supra* para. 43.

<sup>166</sup> These existing requirements are found in 47 CFR §§ 1.1307(b), 1.1310, 2.1091, 2.1093.

<sup>167</sup> *See supra* paras. 4, 14.

### a. Regulatory Status

81. We tentatively conclude that a licensee in the 698-746 MHz band may include any or a combination of services with more than one regulatory status in a single license. In adopting a flexible licensing framework for Part 27, the Commission permitted applicants to request more than one regulatory status for authorization in a single license, rather than require the applicant to choose a single status for its proposed services. Thus, a Part 27 license may authorize a combination of common carrier, non-common carrier and broadcast services in a single license, and the Part 27 licensee may render any kind of communications service consistent with that regulatory status. As we tentatively conclude to authorize licensees in the 698-746 MHz band to provide a variety of services (*e.g.*, fixed, mobile, *etc.*) under more than one regulatory status (*i.e.*, common carrier, non-common carrier, and/or broadcast), any one licensee would be permitted to provide any combination of services, anywhere within its licensed area at any time, consistent with its regulatory status and interference protection requirements. Given our decision to apply this Part 27 licensing framework in the Upper 700 MHz proceeding, we seek comment on our tentative conclusion to adopt this same framework for licensing services in the 698-746 MHz band. Does applying the same approach used for the Upper 700 MHz Band to this reallocated 698-746 MHz spectrum achieve efficiencies in the licensing and administrative processes?

82. Assuming that a 698-746 MHz licensee regulated under Part 27 may provide any communications service consistent with its authorized regulatory status, we seek comment on whether that licensee should be subject to other Commission rules specifically applicable to the nature of the service provided. Alternatively, we seek comment on whether we should amend Part 27 to include any other obligations for certain services authorized on this band. For example, the Communications Act applies specific requirements to broadcasters and common carriers that are not applied to other Part 27 licensees. In our *Upper 700 MHz First Report and Order*, we determined that the provision of “new broadcast-type” services does not alter the underlying broadcast nature of such services on the Upper 700 MHz Band, and as a result, such services are subject to the regulatory and statutory provisions governing broadcast service.<sup>168</sup> However, in our *Upper 700 MHz MO&O and FNPRM*, we declined to go so far as to apply an “equivalent regulatory regime” from Part 73 of our rules to Part 27 broadcast licensees in the Upper 700 MHz band, stating that we would determine the applicable regulatory framework in the context of the offering of specific, actual new broadcast-type services.<sup>169</sup> We tentatively conclude that we will adopt the same approach for Part 27 broadcast licensees on the 698-746 MHz band as we did for the Upper 700 MHz Band. We seek comment generally on any provisions in existing, service-specific rules that may require specific recognition or adjustment to comport with the potential supervening application of Part 27, as well as any provisions that would be necessary in Part 27 to fully describe the scope of covered service and technologies.

83. The possible inclusion of full power broadcasting within the reallocated 698-746 MHz band is

---

<sup>168</sup> *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 494, ¶ 43 n.95 (“The provision of new broadcast-type services compliant with Part 27 technical standards does not alter the underlying nature of such services, or the licensee’s related regulatory and statutory obligations.”) (emphasis added). The *Upper 700 MHz First Report and Order* did not address the regulatory status of new broadcast-type services.

<sup>169</sup> *Upper 700 MHz MO&O and FNPRM* at ¶ 68 (stating that new 700 MHz broadcast licensees will be subject to the statutory provisions of the Communications Act governing broadcasting, but will be only be subject to the application of additional Commission regulations and policies in the context of specific service offerings).

more problematic with respect to the licensing and administrative process. We ask commenters to address whether a decision to permit full power broadcasting within this band affects our tentative conclusion that there should be no additional requirements for new broadcast-type licensees operating under Part 27.<sup>170</sup> If we decide to permit full power broadcasting in this reallocated spectrum,<sup>171</sup> should Part 73 apply to licensees to the extent they provide any broadcast services (including full power broadcasting as well as new broadcast-type services) and should Part 27 apply to the extent licensees provide other wireless services?

84. Consistent with the Part 27 framework adopted for the Upper 700 MHz Band, we seek comment on whether applicants and licensees in the 698-746 MHz band should also be required to indicate to the Commission the regulatory status of any services that they choose to provide. To ensure compliance with the statutory requirements of Titles II and III of the Communications Act, the Commission has often required applicants to designate the regulatory status of the services they intend to provide. For example, the Commission's current Form 601 Application for Wireless Telecommunications Bureau – Radio Service Authorization requires an applicant to indicate whether the service it intends to offer will be common carrier, non-common carrier, private, broadcast, and/or band manager. If we decide to require 698-746 MHz applicants and licensees to designate their regulatory status, does the Form 601 need to be revised in any way? To the extent that full power broadcast service is included in this reallocated spectrum, is there a need to modify the Form 601 or any other appropriate form(s) that an applicant may use to seek these services, either solely or in conjunction with other services under a single license?

85. We seek comment on whether applicants and licensees in the 698-746 MHz band should be required to describe their proposed services. In adopting Part 27, the Commission stated that, apart from this designation of regulatory status, the Commission would not require applicants to describe the services they seek to provide. Likewise, in the Upper 700 MHz proceeding, the Commission stated that it is sufficient that an applicant indicate its choice of regulatory status in a streamlined application process. Should we apply a similar approach to services provided in the Lower 700 MHz Band, including full power broadcast as well as new broadcast-type services? If potential applicants are unsure of the nature of their services and their classification, we seek comment on whether we should require applicants to submit a petition with their applications requesting clarification and including service descriptions for that purpose.

86. We also seek comment on whether we should permit licensees to change their service in such a way that it alters their regulatory status. If we permit licensees to alter their regulatory status, what procedures should the Commission adopt to provide for this change? We seek comment on whether we should require such licensees to notify the Commission that they have altered their status, even if such change would not require prior Commission authorization. Similar to Upper 700 MHz Band licensees, should licensees in the Lower 700 MHz Band be required to notify the Commission within 30 days of the change, unless the change results in the discontinuance, reduction, or impairment of the existing service, in which case a different time period may apply? In these situations, how can we best maximize a carriers' flexibility in service offerings

---

<sup>170</sup> This discussion is limited to the question of whether different Commission-imposed regulations should apply to broadcasters depending on whether they are providing new broadcast-type services or full power broadcasting on the 698-746 MHz band. To the extent that a Lower 700 MHz licensee's services (either new broadcast-type services or full power broadcasting) fall within the statutory definition of broadcasting, they will be subject to the statutory provisions of the Communications Act governing broadcasting.

<sup>171</sup> See *supra* Part III.B.1.a.

while also implementing, for example, the requirement in Section 214(a) of the Communications Act that the Commission certify that the public convenience and necessity will not be adversely affected by such actions initiated by carriers?<sup>172</sup> Does the potential inclusion of broadcasting, including full power broadcast services, require us to modify this approach? Because full power broadcast licensees are subject to different ownership rules and attribution standards than wireless licensees, we request comment on what procedures should apply when a licensee changes its offerings between these regulatory classifications.

87. Finally, we seek comment on whether we should permit licensees to lease their licensed spectrum usage rights in accordance with the proposals we may adopt in our *Secondary Markets NPRM* proceeding.<sup>173</sup> In the alternative, we ask commenters to address any unique attributes of the Lower 700 MHz Band (e.g., level of incumbency) that would justify a level of flexibility different from what we adopt generally in that proceeding. In considering leasing arrangements in our *Secondary Markets NPRM*, we stated the primary issue may be whether all licensees in certain services should have the option to use some or all of their licensed spectrum in the same manner as a band manager, i.e., to make spectrum available to third party users without the need for prior Commission approval, while retaining primary responsibility for compliance with the Commission's rules.<sup>174</sup> We also seek comment on the potential for band manager licensing to provide flexibility for the Lower 700 MHz Band given the distinctive technical and/or policy issues associated with its reallocation. Because we have not issued a decision in the Secondary Markets proceeding, we seek comment on the extent to which leasing arrangements and/or band manager licensing would help achieve the maximum flexibility possible for the use of this spectrum, consistent with technical and regulatory constraints.

88. We also seek comment on whether our service and auction rules should have any special provisions for private radio and/or public safety services on the 698-746 MHz band. For example, should parties who would function as band managers with the ability to lease their spectrum rights to various types of users, including private radio and/or public safety users, be eligible to bid for this spectrum? To enable the full and flexible use of this reallocated spectrum, we ask commenters to address any specific measures that should be taken to accommodate the provision of private and public safety regulatory classes of services.

#### **b. Eligibility**

89. In the *Upper 700 MHz First Report and Order*, we decided to impose no restrictions on eligibility for a license in the 747-762 MHz and 777-792 MHz bands,<sup>175</sup> other than the foreign ownership restrictions set forth in Section 310 of the Communications Act.<sup>176</sup> Consistent with this approach, we propose that there be no

---

<sup>172</sup> See 47 U.S.C. § 214(a).

<sup>173</sup> See Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, WT Docket No. 00-230, *Notice of Proposed Rulemaking*, FCC 00-402 (rel. Nov. 27, 2000) (*Secondary Markets NPRM*).

<sup>174</sup> *Id.* at ¶ 22.

<sup>175</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 496, ¶ 47; see also 47 C.F.R. §§ 27.12, 27.302.

<sup>176</sup> See 47 U.S.C. § 310. We discuss foreign ownership restrictions below. See *infra* Part III.B.3.d.

restrictions on eligibility for a license in the 698-746 MHz band.<sup>177</sup> We seek comment on our view that opening this spectrum to as wide a range of applicants as possible will encourage entrepreneurial efforts to develop new technologies and services, while helping to ensure efficient use of this spectrum. Commenters also should address how our proposed policy to not impose restrictions on eligibility should apply to possible use of this spectrum for broadcasting.<sup>178</sup>

90. We also seek comment on the character qualification standard that should be applied to licensees in the 698-746 MHz band. While the character qualification standards applied to broadcasters have provided guidance in common carrier proceedings, the Commission has said that these standards are not “directly applicable” to common carriers.<sup>179</sup> We seek comment on whether there is any reason that full power broadcasters who share spectrum with Part 27 wireless services, including wireless common carrier offerings, should not be governed by the existing standards applied to Part 73 licensees. We also seek comment on whether there is any reason we cannot apply our current rules to decide whether an entity that has been disqualified from holding a full power Part 73 broadcasting license pursuant to our character qualification rules should be eligible to provide non-broadcasting services pursuant to a Part 27 license.

### c. Spectrum Aggregation Limits

91. To the extent that we allocate spectrum within the 698-746 MHz band for the provision of CMRS, we seek comment on whether spectrum in this band, if used to provide CMRS, should be subject to the Commission’s 45/55 MHz CMRS spectrum cap.<sup>180</sup> Currently, 180 MHz of broadband PCS, cellular, and SMR spectrum regulated as CMRS is subject to the Commission’s 45 MHz (55 MHz in rural areas) spectrum cap. Part 27 of the Commission’s rules does not limit the amount of spectrum that an entity may aggregate in any given geographic area. In the Upper 700 MHz proceeding, we refrained from extending the CMRS spectrum cap to the newly reallocated 746-764 and 776-794 MHz bands.<sup>181</sup> We determined that the presence of a CMRS spectrum cap for the existing 180 MHz of spectrum subject to the cap provides a sufficient safeguard against consolidation of spectrum. In addition, we determined that factors such as the level of encumbrance, the extended transition period, and the degree to which spectrum would be used for CMRS all weighed against including the Upper 700 MHz Band in the spectrum cap.<sup>182</sup>

---

<sup>177</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 497, ¶ 49.

<sup>178</sup> See, e.g., 47 C.F.R. § 73.3555.

<sup>179</sup> In issuing a Notice of Apparent Liability to MCI for premature and/or unauthorized construction, the Commission stated: “Although not directly applicable to common carriers, the character qualifications standards adopted in the broadcast context can provide guidance in the common carrier area as well.” MCI Telecommunications Corporation, *Petition for Revocation of Operating Authority, Order and Notice of Apparent Liability*, 3 FCC Rcd 509, 515, ¶ 31 n.14 (1988).

<sup>180</sup> See 47 C.F.R. § 20.6.

<sup>181</sup> See, e.g., *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 497-98, ¶¶ 49-53.

<sup>182</sup> We purposely declined to adopt the alternative approach of applying a raised spectrum cap (e.g., 55 or 60 MHz) because “[t]hat course would permit reconsolidation within the present [broadband PCS, cellular, and SMR] bands.” *Id.* at 498, ¶ 53.

92. In light of our findings in the Upper 700 MHz proceeding, we seek comment on whether we should abstain from counting the 698-746 MHz band against the CMRS spectrum cap? Alternatively, if we decide to apply the spectrum cap to this spectrum, we seek comment on whether and if so, how much, we should increase the amount of spectrum a single entity can hold beyond the 45/55 MHz threshold. In this regard, it has been our expectation that newly available CMRS-suitable spectrum either should be excluded from the cap, or if it is included, that the cap should be adjusted accordingly.<sup>183</sup> Under the former alternative, if the spectrum does not count towards the cap and licensees use it for provision of CMRS, what impact will that have on competition in the CMRS marketplace? Under the latter alternative, what impact would an increase of the cap have on the reduction or concentration of competition and on changes in the prices or to the quality of services. Commenters should address the relevance of the factors that we considered in our decision not to apply the spectrum cap to the 746-764 and 776-794 MHz bands, including 1) whether applying the spectrum cap would be consistent with our goals of seeking flexible use of this spectrum; 2) whether permitting licensees to acquire all of the available lower 700 MHz spectrum in a given geographic area would result in economies of scale that could promote a variety of services, including advanced wireless services; and 3) whether it makes sense to count this spectrum against the cap if the extent to which the 698-746 MHz band will be used for CMRS services is not clear.

93. We also seek comment on whether spectrum in the 698-746 MHz band should be subject to any other aggregation limits. We decided not to adopt any in-band spectrum aggregation limits for the 747-762 MHz and 777-792 MHz bands. Similarly, should we not restrict the amount of commercial spectrum that any one licensee may obtain in the 698-746 MHz band in the same licensed geographic service area? If so, we then seek comment on whether there should be any cross-band aggregation limits between the 747-762 MHz and 777-792 MHz bands, and the 698-746 MHz band. Should we preclude or otherwise limit an entity from obtaining all 78 MHz of spectrum in the combined Upper and Lower 700 MHz Bands in the same geographic area?

#### **d. Foreign Ownership Restrictions**

94. Sections 310(a), (b) of the Communications Act<sup>184</sup> provide:

- (a) The station license required under this Act shall not be granted to or held by any foreign government or the representative thereof.
- (b) No broadcast or common carrier or aeronautical en route or aeronautical fixed radio station license shall be granted to or held by--
  - (1) any alien or the representative of any alien;
  - (2) any corporation organized under the laws of any foreign government;

---

<sup>183</sup> *Id.* at 497, ¶ 51. In our 2000 biennial review of spectrum aggregation limits, we are considering an analytical framework to determine what, if any, constraints ought to apply to concentration of ownership in newly available spectrum bands. See 2000 Biennial Regulatory Review – Spectrum Aggregation Limits for Commercial Mobile Radio Services, WT Docket No. 01-14, *Notice of Proposed Rulemaking*, FCC 01-28 (rel. Jan. 23, 2001).

<sup>184</sup> 47 U.S.C. § 310(a)-(b).



- (3) any corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country;
- (4) any corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country, if the Commission finds that the public interest will be served by the refusal or revocation of such license.

95. In the *Upper 700 MHz First Report and Order*, we concluded that Section 27.12 of the Commission's rules, which implements Section 310 of the Act, should apply to applicants for licenses in the 747-762 MHz and 777-792 MHz bands.<sup>185</sup> We also decided that common carriers and non-common carriers will not be subject to varied reporting obligations. To enable the Commission to monitor effectively compliance with the alien ownership restrictions, we 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 pursuant to the reporting requirements in Part 27 of our rules.<sup>186</sup>

96. We tentatively conclude that Section 27.12 of the Commission's Rules should apply to applicants for 698-746 MHz band licenses. With respect to our alien ownership reporting requirements, we tentatively conclude that we will require all licensees in the 698-746 MHz band spectrum to file changes in foreign ownership information to the extent required by Part 27 of our rules. We request comment on this approach.

#### **e. License Term; Renewal Expectancy**

97. The Communications Act imposes no term limit on licenses issued by the Commission, other than those for broadcast services, which are limited to an eight-year license term.<sup>187</sup> The statute also specifies renewal criteria for broadcast stations.<sup>188</sup> Part 27 of the Commission's rules provides for license term limits and renewal expectancy for other than new broadcast-type services. Section 27.13(a) limits license terms for certain licensees to 10 years from the date of original issuance or renewal,<sup>189</sup> and Section 27.14(b) establishes a

---

<sup>185</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 502, ¶ 63; see also 47 C.F.R. § 27.12.

<sup>186</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 503, ¶ 64. We noted, however, that, by establishing parity in reporting obligations, we do not establish a single substantive standard for compliance. Thus, we do not and would not disqualify an applicant requesting authorization exclusively to provide non-common carrier services from a license simply because its citizenship information would disqualify it from a common carrier license.

<sup>187</sup> See 47 U.S.C. § 307(c)(1); see also 47 C.F.R. § 73.1020(a).

<sup>188</sup> See 47 U.S.C. § 309(k).

<sup>189</sup> 47 C.F.R. § 27.13(a).

right to a renewal expectancy.<sup>190</sup>

98. In the *Upper 700 MHz First Report and Order*, we modified the license term as it relates to the 747-762 MHz and 777-792 MHz bands, to accommodate licensees' need for additional time to develop and use this spectrum, in light of its continued use by broadcasters until 2006.<sup>191</sup> We decided that initial licenses for the 746-764 MHz and 776-794 MHz bands<sup>192</sup> would extend eight years beyond the year 2006, the date as of which incumbent broadcasters are required to have relocated to other portions of the spectrum, (*i.e.*, January 1, 2015),<sup>193</sup> subject to certain conditions.<sup>194</sup> However, a licensee that commences new broadcast-type operations on or before January 1, 2006, will be required to seek renewal of its license at the end of the eight-year term following commencement of such broadcast operations.<sup>195</sup>

99. We seek comment on the appropriate license term to apply with respect to licensees in the 698-746 MHz band. We seek comment on whether to adopt the license term and renewal provisions in Part 27 of the Commission's Rules, for other than new broadcast-type services.<sup>196</sup> We therefore seek specific comment on whether the initial license term for licenses, other than new broadcast-type services, should expire on January 1, 2015. In addition, we seek comment on other alternatives, such as a 10-year license term. Commenters should also address whether it would be possible to have different license terms, depending on the type of service offered by the licensee. We also seek comment on how we would administer such an approach, particularly if licensees provide more than one service in their service area, or decide to change the type of service they plan to offer.

100. Furthermore, in the *Upper 700 MHz First Report and Order*, we adopted the right to a

---

<sup>190</sup> See *id.* § 27.14(b). Section 27.14(b) states: "A renewal applicant involved in a comparative renewal proceeding shall receive a preference, commonly referred to as a renewal expectancy, which is the most important comparative factor to be considered in the proceeding, if its past record for the relevant license period demonstrates that: (1) The renewal applicant has provided "substantial" service during its past license term; and (2) The renewal applicant has substantially complied with applicable FCC rules, policies and the Communications Act of 1934, as amended."

<sup>191</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 504, ¶ 67.

<sup>192</sup> *Id.* We also adopted the same license term and renewal expectancy for the Guard Bands that we adopted for the 747-762 MHz and 777-792 MHz bands. See *Upper 700 MHz Second Report and Order*, 15 FCC Rcd at 5331, ¶ 73.

<sup>193</sup> See 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, *Errata*, DA 00-450 (rel. March 1, 2000) (*Upper 700 MHz Errata*).

<sup>194</sup> This date may be extended under particular circumstances set forth in 47 U.S.C. § 309(j)(14)(B). See *supra* note 4.

<sup>195</sup> See 47 C.F.R. § 27.13(b).

<sup>196</sup> This includes the license term extension until January 1, 2015 for nonbroadcast licensees, as set forth in 47 C.F.R. § 27.13(b).

renewal expectancy established in Section 27.14(b).<sup>197</sup> We found that in order for a licensee involved in a comparative renewal proceeding<sup>198</sup> to claim a renewal expectancy that licensee must include, at a minimum, the showing required by Section 27.14(c) of the Commission's rules.<sup>199</sup> We seek comment on whether we should likewise adopt the right to a renewal expectancy established in Section 27.14 for licensees in the 698-746 MHz band.

101. We also seek comment on whether a new broadcast licensee operating in the Lower 700 MHz Band would be able to claim the renewal expectancy established by Section 309(k) of the Act.<sup>200</sup> We seek comment on whether there should be a distinction between the renewal expectancy that we will provide to new broadcasters in the Lower 700 MHz Band and licensees offering other services (*i.e.*, datacasting and other wireless services) on this band.

102. Consistent with Part 27, in the *Upper 700 MHz First Report and Order*, we found that in the event that a license is partitioned or disaggregated, any partitionee or disaggregatee shall be authorized to hold its license for the remainder of the original licensee's term, and the partitionee or disaggregatee may obtain a renewal expectancy on the same basis as other licensees in the band.<sup>201</sup> Further, we decided that all licensees meeting the substantial service requirement will be deemed to have met this part of the renewal expectancy requirement regardless of which of the construction options the licensees have chosen. We concluded that this approach is appropriate because a licensee, through partitioning, should not be able to confer greater rights than it has been awarded under the terms of its license grant.<sup>202</sup> We seek comment on taking this approach with

---

<sup>197</sup> 47 C.F.R. § 27.14(b). To claim a renewal expectancy, a renewal applicant involved in a comparative renewal proceeding must demonstrate that it has provided "substantial service" and has substantially complied with applicable provisions of the Commission's rules, policies, and the Communications Act. *See id.* § 27.14(b)(1)-(2); *see also Upper 700 MHz First Report and Order*, 15 FCC Rcd at 504, ¶ 68.

<sup>198</sup> A comparative renewal proceeding is one in which an existing licensee is challenged by another applicant. The existing licensee must demonstrate sufficient reason for the Commission to renew its license for an additional license term rather than issue the license to another applicant. *See* 47 C.F.R. § 27.14(b); *see also* Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service, GN Docket No. 96-228, *Report and Order*, 12 FCC Rcd 10785, 10840, 10843-44, ¶¶ 106, 113 (1997) (*Part 27 Report and Order*).

<sup>199</sup> *See Upper 700 MHz First Report and Order*, 15 FCC Rcd at 504, ¶ 68. *See also* 47 C.F.R. § 27.14(c), which requires an applicant's showing to include: (1) a description of current service in terms of geographic coverage and population served or links installed; (2) an explanation of the licensee's record of expansion, including a timetable for the construction of new base sites or links to meet changes in demand for service; (3) a description of the licensee's investments in its system; and, (4) copies of any Commission orders finding the licensee to have violated the Communications Act or any Commission rule or policy, and a list of any pending proceedings that relate to any matter described by the requirements for the renewal expectancy.

<sup>200</sup> *See* 47 U.S.C. § 309(k).

<sup>201</sup> *See Upper 700 MHz First Report and Order*, 15 FCC Rcd at 504, ¶ 68; *see also* 47 C.F.R. §§ 27.15(d), 27.324(b)(4).

<sup>202</sup> *See Upper 700 MHz First Report and Order*, 15 FCC Rcd at 504, ¶ 68; *see also Part 27 Report and Order*, 12 FCC Rcd at 10840, ¶ 106.

respect to 698-746 MHz licensees.

#### f. Performance Requirements

103. Section 27.14(a) of the Commission's rules requires licensees to provide "substantial service" in their service areas within their prescribed license term. Failure to meet this requirement will result in forfeiture of the license.<sup>203</sup> In the *Upper 700 MHz First Report and Order*, we amended the performance requirement in Section 27.14(a) as it relates to the 747-762 MHz and 777-792 MHz bands. We required in the 747-762 MHz and 777-792 MHz bands to provide substantial service to their service areas no later than January 1, 2015,<sup>204</sup> eight years after December 31, 2006, the date as of which incumbent broadcasters are required to have relocated to other portions of the spectrum.<sup>205</sup> This section defines substantial service "as service which is sound, favorable, and substantially above a level of mediocre service which just might minimally warrant renewal."<sup>206</sup> In the *Part 27 Report and Order*, the *LMDS Second Report and Order*, and the *Upper 700 MHz First Report and Order*, the Commission adopted safe harbors that would demonstrate substantial service.<sup>207</sup> In implementing its auction procedures, Section 309(j)(4)(B) of the Communications Act requires the Commission to include safeguards to protect the public interest in the use of the spectrum and performance requirements "to ensure prompt delivery of service to rural areas, to prevent stockpiling or warehousing of spectrum by licensees or permittees, and to promote investment in and rapid deployment of new technologies and services."<sup>208</sup> In addition, we seek to promote the efficient and effective use of the spectrum.<sup>209</sup> We invite comment on the development of service rules to meet these objectives.

104. We seek comment on whether we should require licensees in the 698-746 MHz band to provide substantial service on January 1, 2015, the date that we require licensees in the 747-762 and 777-792 MHz band to provide substantial service. We also seek comment on whether we should adopt any safe harbors for licensees in the 698-746 MHz band. In the *Upper 700 MHz First Report and Order*, we adopted two safe harbors for fixed services: (1) for a licensee who chooses to offer fixed, point-to-point services, the construction of four permanent links per one million people in its licensed service area during its license term or at the license-renewal mark would constitute substantial service; and (2) for a licensee who chooses to offer

---

<sup>203</sup> See 47 C.F.R. § 27.14(a).

<sup>204</sup> See *Upper 700 MHz Errata*, *supra* note 193.

<sup>205</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 505, ¶ 70.

<sup>206</sup> *Id.*; see also *Part 27 Report and Order*, 12 FCC Rcd at 10843-45, ¶¶ 111-115.

<sup>207</sup> See *Part 27 Report and Order*, 12 FCC Rcd at 10844, ¶ 113; see also Rulemaking to Amend Parts 1, 2, 21, 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, To Reallocate 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, 12660, ¶ 270 (1997) (*LMDS Second Report and Order*); *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 505, ¶ 70.

<sup>208</sup> 47 U.S.C. § 309(j)(4)(B); see *id.* § 309(j)(3).

<sup>209</sup> See 47 U.S.C. § 309(j)(3)(D).

fixed, point-to-multipoint services, a demonstration of coverage for 20 percent of the population of its licensed service area during its licensed term or at the license-renewal mark would constitute substantial service.<sup>210</sup> We also there encouraged licensees to build out not only in urban areas and areas of high density population but in rural areas as well, or to partition their license to allow others to do so.<sup>211</sup> In addition, we seek comment on whether we should adopt safe harbors for mobile services (assuming we adopt the substantial service requirement for mobile services) and, if so, what safe harbors would be appropriate. If commenters support safe harbors other than those listed above, they should discuss what other safe harbors should be adopted.

105. We also seek comment on distinct issues raised by applying this proposal to new potential broadcast use of the spectrum. Broadcast permittees operating pursuant to Part 73 are required to construct their facilities within three years.<sup>212</sup> We request comment on whether there are any reasons not to apply these rules to new broadcasters on these bands. Further, we seek comment on whether to adopt a substantial service test for broadcasters operating on this band and, if so, what safe harbors would be appropriate.

**g. Disaggregation and Partitioning of Spectrum.**

106. In the *Upper 700 MHz First Report and Order*, we provided licensees in the 746-764 MHz and 776-794 MHz bands flexibility by permitting geographic partitioning of any service area defined by the partitioner and partitionee and spectrum disaggregation without restriction on the amount of spectrum to be disaggregated.<sup>213</sup> We tentatively conclude that we also should permit licensees in the 698-746 MHz band to partition and disaggregate their licenses. We tentatively conclude that geographic partitioning and spectrum disaggregation can result in efficient spectrum use and economic opportunity for a wide variety of applicants, including small business, rural telephone, minority-owned, and women-owned applicants.<sup>214</sup> We also tentatively conclude that this approach will provide a means to overcome entry barriers through the creation of smaller licenses that require less capital, thereby facilitating greater participation by rural telephone companies and other smaller entities, many of which are owned by minorities and women.<sup>215</sup> We seek comment on each of these matters.

107. Section 27.15 of the Commission's rules<sup>216</sup> permits licensees seeking approval for partitioning

---

<sup>210</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 505, ¶ 70.

<sup>211</sup> *Id.*

<sup>212</sup> See 47 C.F.R. § 73.3598; see also 1998 Biennial Regulatory Review -- Streamlining of Mass Media Applications, Rules, and Processes, MM Docket No. 98-43, *Report and Order*, 13 FCC Rcd 23056, 23087-93, ¶¶ 77-90 (1998).

<sup>213</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 506, ¶ 74.

<sup>214</sup> See 47 U.S.C. § 309(j)(4)(C).

<sup>215</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 506, ¶ 74; see also *Geographic Partitioning and Spectrum Disaggregation by Commercial Mobile Radio Services Licensees, Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 21831, 21843-44, ¶¶ 13-17 (1996).

<sup>216</sup> See 47 C.F.R. § 27.15.

and disaggregation arrangements to request authorization from the Commission for partial assignment of a license, and provides that licensees may apply to partition their licensed geographic service areas or disaggregate their licensed spectrum at any time following the grant of their licenses. In the *Upper 700 MHz First Report and Order*, we decided to permit geographic partitioning of any service area defined by the partitioner and partitionee, to permit spectrum disaggregation without restriction on the amount of spectrum to be disaggregated, and to permit combined partitioning and disaggregation.<sup>217</sup> Pursuant to Section 27.15, the partitioning licensee must include with its request a description of the partitioned service area and calculations of the population of the partitioned service area and the licensed geographic service area.<sup>218</sup> Licenses that partition and disaggregate also are subject to the provisions against unjust enrichment set forth in Section 27.15(c).<sup>219</sup> We concluded that allowing parties to decide without restriction the exact amount of spectrum to be disaggregated or geographic area to be partitioned will encourage more efficient use of the spectrum and permit the deployment of a broader mix of service offerings, both of which will lead to a more competitive wireless marketplace.<sup>220</sup> We request comment on whether licensees in the 698-746 MHz band should be eligible to partition service areas and disaggregate spectrum to the same extent that licensees in the 746-764 MHz and 776-794 MHz bands are permitted to do so. We also request comment on what limits, if any, should be placed on the ability of licensees to partition service areas and disaggregate spectrum.

108. We also propose to adopt the methods that the Commission adopted in the *Upper 700 MHz First Report and Order* for parties to partitioning, disaggregation, or combined partitioning and disaggregation agreements to meet construction requirements.<sup>221</sup> Specifically, we propose that parties to partitioning agreements be permitted to choose between two options for satisfying the construction requirements.<sup>222</sup> Under the first option, the partitioner and partitionee would each certify that it will independently satisfy the substantial service requirement for its respective partitioned area. If a licensee fails to meet its substantial service requirement during the relevant license term, the non-performing licensee's authorization would be subject to cancellation at the end of the license term. Under the second option, the partitioner certifies that the requirement has been or will be met for the entire market. If the partitioner fails to meet the substantial service standard during the relevant license term, only its license would be subject to cancellation at the end of the license term. The partitionee's license would not be affected by such failure.

109. Finally, we propose to allow parties to disaggregation agreements to choose between two options for satisfying the construction requirements.<sup>223</sup> Under the first option, the disaggregator and

---

<sup>217</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 506-07, ¶ 75.

<sup>218</sup> See 47 C.F.R. § 27.15(b)(1).

<sup>219</sup> *Id.* § 27.15(c).

<sup>220</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 506-07, ¶ 75.

<sup>221</sup> *Id.*

<sup>222</sup> *Id.* at 507, ¶ 76; see also 47 C.F.R. § 27.15(e)(1).

<sup>223</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 507-08, ¶ 78; see also 47 C.F.R. § 27.15(e)(2).

disaggregater would certify that they will share responsibility for meeting the substantial service requirement for the geographic service area. If parties choose this option, both parties' performance will be evaluated at the end of the relevant license term and both licenses could be subject to cancellation. The second option would allow the parties to agree that either the disaggregator or the disaggregater would be responsible for meeting the substantial service requirement for the geographic service area. If parties choose this option, and the party responsible for meeting the construction requirement fails to do so, only the license of the non-performing party would be subject to cancellation.

#### 4. Operating Rules

110. In the *Upper 700 MHz First Report and Order*, we decided that licensees in the 747-762 MHz and 777-792 MHz bands would be subject to the operational rules contained in Part 27 that govern operations, modified to accommodate the particular circumstances of the Upper 700 MHz proceeding.<sup>224</sup> We considered operating rules for a full range of possible licensees, consistent with our stated intention to permit as much flexibility in the use of this spectrum as is consistent with the requirements of Section 303(y) of the Act. The discussion in the Upper 700 MHz proceeding focused on operating rules for licensees to the extent that they offer common carrier services. We did not determine to survey at that time the range of statutory and regulatory provisions that may be relevant to any new service offerings on the band that qualify as new broadcast-type services.

111. We seek comment generally on the applicability of these rules to the 698-746 MHz band and whether any operating rules contained in other Parts of the Commission's rules should be adopted for the 698-746 MHz band. In addition, we ask commenters to suggest any alternatives to such regulations governing a licensee's operations in order to minimize the potential significant economic impact, if any, from such rules on small entities.

##### a. Forbearance

112. Pursuant to Section 10(a) of the Communications Act,<sup>225</sup> the Commission is directed to forbear from applying any regulation or provision of the Act to a telecommunications carrier or service, or class of telecommunications carriers or services, in any or some of its geographic markets, if we determine that: (1) enforcement of such regulation or provision is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in connection with that telecommunications carrier or telecommunications service are just and reasonable and are not unjustly or unreasonably discriminatory; (2) enforcement of such regulation or provision is not necessary for the protection of consumers; and (3) forbearance from applying such provision or regulation is consistent with the public interest. In determining whether forbearance is consistent with the public interest, we are directed to consider whether forbearance will promote competitive market conditions, including whether it will enhance competition among existing telecommunications service providers, and a determination that forbearance will promote competition may be the basis for a finding that forbearance is in the public interest.<sup>226</sup>

---

<sup>224</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 509-12, ¶ 81-88.

<sup>225</sup> 47 U.S.C. § 160(a).

<sup>226</sup> See *id.* § 160.

113. We seek comment on whether we should consider forbearance initiatives that are targeted specifically to new licensees that will operate in the Lower 700 MHz Band. Commenters should address how forbearance might apply to the various services that might be offered in the Lower 700 MHz Band, including CMRS, fixed wireless and new broadcast-type service.<sup>227</sup>

**b. Equal Employment Opportunity.**

114. In the *Upper 700 MHz First Report and Order*, we declined to include specific EEO provisions in Part 27 for application to the 747-762 MHz and 777-792 MHz bands. Because the Commission's EEO Rules are service-specific, we determined that an applicant's EEO requirements will depend on the type of service it chooses to provide.<sup>228</sup> In adopting rules for the Upper 700 MHz proceeding, 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*.<sup>229</sup> We found that an applicant's election on its FCC Form 601 will determine the EEO Rules that apply to the applicant. In this Notice, we tentatively conclude that for the Lower 700 MHz Band an applicant's EEO requirements will be determined by the type of service an applicant chooses to provide. We seek comment on this matter.

**5. Competitive Bidding Procedures**

115. As is discussed above, Section 309(j)(14)(C) requires the Commission to assign licenses for the 698-746 MHz band by means of the competitive bidding procedures adopted pursuant to Section 309(j) of the Act.<sup>230</sup> Consistent with that directive, we request comment on a number of issues relating to the competitive bidding procedures for the 698-746 MHz band.

**a. Incorporation by Reference of the Part 1 Standardized Auction Rules**

116. We propose to conduct the auction of initial licenses in the 698-746 MHz band 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.<sup>231</sup>

---

<sup>227</sup> We note that our forbearance authority applies only "to a telecommunications carrier or telecommunications service, or class of telecommunications carriers or telecommunications services." *See id.* § 160(a).

<sup>228</sup> *See Upper 700 MHz First Report and Order*, 15 FCC Rcd at 513, ¶ 92.

<sup>229</sup> The Commission in the *DBS NPRM* proposed that direct broadcast satellite ("DBS") 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, 6924-925 (1998) (*DBS NPRM*).

<sup>230</sup> *See supra* paras. 1-2; *see also* 47 U.S.C. § 309(j)(14)(C).

<sup>231</sup> *See* 47 C.F.R. § 1.2101 *et. seq.* (Part 1, Subpart Q). The Commission has recently clarified and amended its general competitive bidding procedures for all auctionable services. *See* Amendment of Part 1 of the Commission's Rules -- Competitive Bidding Procedures, WT Docket No. 97-82, *Order on Reconsideration of the Third Report and Order, Fifth Report and Order, and Fourth Further Notice of Proposed Rule Making*, 15 FCC Rcd (continued....)



Specifically, we propose to employ the Part 1 rules governing competitive bidding design, designated entities, application and payment procedures, reporting requirements, collusion issues, and unjust enrichment.<sup>232</sup> Under this proposal, such rules would be subject to any modifications that the Commission may adopt in the Part 1 proceeding.<sup>233</sup> In addition, consistent with current practice, matters such as the appropriate competitive bidding design for the auction of 698-746 MHz band licenses, as well as minimum opening bids and reserve prices, would be determined by the Wireless Telecommunications Bureau pursuant to its delegated authority.<sup>234</sup>

We note that the Wireless Telecommunications Bureau has established combinatorial bidding procedures for the auction of licenses in the 747-762 MHz and 777-792 MHz bands (Auction No. 31).<sup>235</sup> We seek comment on whether any of our Part 1 rules would be inappropriate in an auction of licenses in the 698-746 MHz band.

#### **b. Provisions for Designated Entities**

117. In authorizing the Commission to use competitive bidding, Congress mandated that the Commission “ensure that small businesses, rural telephone companies, and businesses owned by members of minority groups and women are given the opportunity to participate in the provision of spectrum-based services.”<sup>236</sup> In addition, Section 309(j)(3)(B) of the Act provides that in establishing eligibility criteria and bidding methodologies the Commission shall promote “economic opportunity and competition . . . by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women.”<sup>237</sup>

118. The Commission’s designated entity preferences apply based on an entity’s qualification as a

(Continued from previous page) \_\_\_\_\_

15293 (2000)) (*Part 1 Fifth Report and Order*). Among other things, this decision adopted a general “controlling interest” standard for making determinations of whether the gross revenues of an affiliate will be attributed to an applicant. *See id.* at 15323-27, ¶¶ 58-67.

<sup>232</sup> *Id.*

<sup>233</sup> *Id.* at 15331-34, ¶¶ 79-88. The Commission is also considering certain modifications to its rule prohibiting collusion among auction participants. *See Amendment of Part 1 of the Commission’s Rules -- Competitive Bidding Procedures*, WT Docket No. 97-82, *Third Further Notice of Proposed Rule Making*, 14 FCC Rcd 21558 (1999).

<sup>234</sup> *See Amendment of Part 1 of the Commission’s Rules - Competitive Bidding Procedures, Third Report and Order and Second Further Notice of Proposed Rule Making*, 13 FCC Rcd 374, 448-49, 454-55, ¶¶ 125, 139 (directing the Bureau to seek comment on specific mechanisms relating to auction conduct pursuant to the BBA 97) (*Part 1 Third Report and Order*).

<sup>235</sup> *See Procedures Implementing Package Bidding For Auction No. 31, Bidder Seminar Scheduled For July 24, 2000, Public Notice*, DA 00-1486 (rel. July 3, 2000).

<sup>236</sup> *See* 47 U.S.C. § 309(j)(4)(D).

<sup>237</sup> *See id.* § 309(j)(3)(B).

small business.<sup>238</sup> We note that minority- and women-owned businesses and rural telephone companies that qualify as small businesses may take advantage of the special provisions we have adopted for small businesses.<sup>239</sup> We tentatively conclude that our small business provisions are sufficient to promote participation by businesses owned by minorities and women, as well as rural telephone companies. To the extent that commenters propose additional provisions to ensure participation by minority- or women-owned businesses, they should address how such provisions should be crafted to meet the relevant constitutional standards.<sup>240</sup>

119. We seek comment on the appropriate definitions of small businesses that should be used to determine eligibility for bidding credits in the 698-746 MHz band. In the *Competitive Bidding Second Memorandum Opinion and Order*, the Commission stated that it would define eligibility requirements for small businesses on a service-specific basis, taking into account the capital requirements and other characteristics of each particular service in establishing the appropriate threshold.<sup>241</sup> The *Part 1 Third Report and Order*, while it standardizes many auction rules, provides that the Commission will continue a service-by-

---

<sup>238</sup> See 47 C.F.R. § 1.2110(a). Although the Commission previously extended designated entity preferences to minority- and women-owned businesses, as well as to small businesses, following the Supreme Court's rulings in *Adarand Constructors, Inc. v. Peña*, 515 U.S. 200 (1995), and *United States v. Virginia, et al.*, 518 U.S. 515 (1996), the Commission concluded that it would not be appropriate to adopt special provisions for minority-owned and women-owned businesses pending the development of a more complete record on the propriety of race- and gender-based provisions for future auctions. See *Part 1 Fifth Report and Order*, 15 FCC Rcd at 15318-20, ¶¶ 45-50 (discussing constitutional standards and governmental interests that would justify the use of race- or gender-based preferences).

<sup>239</sup> See *Part 1 Fifth Report and Order*, 15 FCC Rcd at 15319, ¶ 48; see also FCC Report to Congress on Spectrum Auctions, WT Docket No. 97-150, *Report*, FCC 97-353 at 29 (rel. Oct. 9, 1997) (finding that special provisions for small businesses also increase opportunities for minority- and women-owned businesses).

<sup>240</sup> See *supra* note 238. In this regard, we note that the Commission has recently hosted a public forum at which a series of studies examining the extent to which small entities and women- and minority-owned firms in the communications industry have encountered market entry barriers were presented. See *Market Entry Barrier Studies Will Be Released At The Commission On Tuesday, December 12, 2000, Public Notice*, DA 00-2788 (rel. Dec. 8, 2000). Among those five studies are two that relate directly to wireless licensing and spectrum auctions policies: Ernst & Young, LLP, *FCC Econometric Analysis of Potential Discrimination: Utilization Ratios for Minority- and Women-Owned Companies in FCC Wireless Spectrum Auctions* (Dec. 5, 2000) (developing utilization ratios as a means of measuring the participation and success of minority- and women-owned businesses in the Commission's spectrum auctions); and William D. Bradford, Ph.D., *Discrimination in Capital Markets, Broadcast/Wireless Spectrum Service Providers and Auction Outcomes* (Dec. 5, 2000) (exploring whether and to what extent discrimination in capital markets may have affected applicants for Commission licenses). All five studies may be found in various formats on the Commission's Web site at [http://www.fcc.gov/opportunity/meb\\_study/](http://www.fcc.gov/opportunity/meb_study/). See also Staff Executive Summary (Dec. 5, 2000) (outlining purposes and findings of market barrier studies); Studies Indicate Need to Promote Wireless & Broadcast License Ownership by Small, Women- and Minority-Owned Businesses, Office of Chairman William E. Kennard, *News Release*, (rel. Dec. 12, 2000) (recommending steps to promote diversity of license ownership and summarizing major findings of market barrier studies).

<sup>241</sup> See Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, *Second Memorandum Opinion and Order*, 9 FCC Rcd 7245, 7269 ¶ 145 (1994).

service approach to defining small businesses.<sup>242</sup>

120. We propose to apply the same small business definitions here that we adopted for the Upper 700 MHz Band. In the *Upper 700 MHz First Report and Order*, we defined 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.<sup>243</sup> We believe the services that will be deployed in this band will have similar capital requirements to the commercial services in the Upper 700 MHz Band, and thus the same small business definitions should apply. We believe that new licensees both in this band and the Upper 700 MHz Band may be presented with similar issues and costs, including those involved in relocating incumbents and developing markets, technologies, and services. We invite comment on this analysis. In further support of our proposed definitions, we note that a majority of winning bidders in the auctions for licenses in the Upper 700 MHz guard bands claimed eligibility as small businesses.<sup>244</sup> These results appear to confirm our belief, as stated in the *Upper 700 MHz First Report and Order*, that “these two definitions will provide businesses seeking to provide a variety of services with opportunities to participate in the auction of licenses for this spectrum.”<sup>245</sup>

121. Commenters proposing alternative standards should give careful consideration to the likely capital requirements for developing services in this spectrum. For example, interested parties should consider the impact of our band plan on small business size standards. In this regard, we seek comment on whether our band plan or any other factors that might have an impact on capital requirements warrant the adoption of an additional definition for entities with average annual gross revenues for the three preceding years of not more than \$3 million. Commenters should also consider whether the band plan and characteristics of the Lower 700 MHz Band suggest that the adoption of small business size definitions and the use of bidding credits would be inappropriate in this instance.

122. In the *Part 1 Third Report and Order*, we adopted a standard schedule of bidding credits for certain small business definitions, the levels of which were developed based on our auction experience.<sup>246</sup> Our standard schedule may be found at Section 1.2110(f)(2) of the Commission’s rules.<sup>247</sup> We continue to believe that these levels of bidding credits will provide adequate opportunities for small businesses of varying sizes to participate in spectrum auctions.<sup>248</sup> Assuming that we adopt our proposal to define for the services in this band

---

<sup>242</sup> See *Part 1 Third Report and Order*, 13 FCC Rcd at 388, ¶ 18.

<sup>243</sup> See 47 C.F.R. § 27.502(a)(1)-(2); see also *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 529-31, ¶¶ 131-36. These definitions are consistent with the Commission’s approach in the broadband PCS services. See 47 C.F.R. § 24.720(b).

<sup>244</sup> In particular, five of the nine winning bidders in Auction Nos. 33 and 38 (or just over 55%) claimed eligibility for bidding credits. Additional information on the results of these spectrum auctions may be obtained from the Commission’s Web site at <http://www.fcc.gov/wtb/auctions/>.

<sup>245</sup> See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 530, ¶ 133.

<sup>246</sup> See *Part 1 Third Report and Order*, 13 FCC Rcd at 403-04, ¶ 47.

<sup>247</sup> See 47 C.F.R. § 1.2110(f)(2).

<sup>248</sup> See *Part 1 Third Report and Order*, 13 FCC Rcd at 404, ¶ 47.

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, we propose to provide qualifying “small businesses” with a bidding credit of 15% and “very small businesses” a 25% bidding credit, consistent with Section 1.2110(f)(2).<sup>249</sup> We seek comment on this proposal. We also seek comment on whether, if we adopt a third small business definition for entities with average annual gross revenues of not more than \$3 million for the past three years, the 35% bidding credit set out in Section 1.2110(f)(2)(i) should be made available to such entities.<sup>250</sup> Finally, we invite comment on whether there may be any distinctive characteristics to this band that might suggest a more limited use of bidding credits here.

### c. Public Notice of Initial Applications/Petitions to Deny

123. Section 309(b) and Section 309(c) of the Communications Act require public notice for initial applications, and substantial amendments thereof.<sup>251</sup> These requirements provide that no such application shall be granted earlier than 30 days following the issuance of public notice by the Commission, and that the Commission may not require petitions to deny such applications to be filed earlier than 30 days following the public notice. The same provision also grants the Commission the authority to impose public notice requirements for other licenses, even though the statute does not require public notice. However, the administrative procedures for spectrum auctions adopted in Section 3008 of the BBA 97<sup>252</sup> and Consolidated Appropriations Act, 2000,<sup>253</sup> permit the Commission to shorten notice periods in the auction context to five days for petitions to deny and seven days for public notice, notwithstanding the provisions of Section 309(b) of the Communications Act. In the *Part 1 Third Report and Order*,<sup>254</sup> the Commission exercised this statutory authority by amending Section 1.2108(b) and Section 1.2108(c) of the Commission’s Rules to provide for a five-day period for filing petitions to deny and a seven-day public notice period for all auctionable services.

124. In the *Upper 700 MHz First Report and Order*, we adopted the seven-day notice requirement for initial applications and the five-day deadline for petitions to deny.<sup>255</sup> We also determined that an applicant filing for both common carrier and non-common carrier authorizations in a single license and wishing to make subsequent status changes will be subject to the seven-day public notice requirement. We tentatively conclude in this Notice that services in the 698-746 MHz spectrum will be auctionable services. Therefore, we propose

---

<sup>249</sup> 47 C.F.R. § 1.2110(f)(2)(ii)-(iii).

<sup>250</sup> *Id.* § 1.2110(f)(2)(i).

<sup>251</sup> 47 U.S.C. § 309(b)-(c); *see also id.* § 309(d) (regarding petitions to deny).

<sup>252</sup> *Id.* § 309(j) note 3.

<sup>253</sup> Consolidated Appropriations Act, *supra* note 26, § 213(a)(5).

<sup>254</sup> Amendment of Part 1 of the Commission’s Rules – Competitive Bidding Procedures, 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 Rulemaking*, 13 FCC Rcd 374, 431, ¶ 98 (1997), *recon. pending*.

<sup>255</sup> *See Upper 700 MHz First Report and Order*, 15 FCC Rcd at 508, ¶ 80.

that a seven-day notice period for initial applications and a five-day deadline for petitions to deny would be applicable. We request comments on this proposal and whether longer periods should apply for some services. Commenters should address whether imposing the proposed seven-day notice requirement and five-day petition to deny period would be an undue burden on parties, and whether it would be administratively useful by enabling us to ensure that any applicant filing for both common carrier and non-common carrier authorizations in a single license is in compliance with (1) the licensing requirements for common carriers and broadcasters established in Title III of the Communications Act; and (2) any related requirements we may adopt. Commenters also should address whether we should allow all licensees to make subsequent status changes under reduced notification requirements.

#### **6. Possible Measures to Facilitate Clearing of 698-746 MHz Band and Accelerate DTV Transition**

125. As we discuss in this Notice, the 698-746 MHz band at issue here has historically been used exclusively by television stations (Channels 52-59).<sup>256</sup> In developing the DTV transition plan, the Commission announced its belief that “the recovery of spectrum continue[s] to be a key component of our implementation of DTV service. In this regard, we remain committed to the recovery of the channels temporarily assigned for the transition and to ensuring that the spectrum is used efficiently.”<sup>257</sup> The Commission also announced that the DTV transition plan would “permit the eventual recovery” of additional spectrum nationwide while minimizing disruptions to broadcasters, and identified only the Channels 60-69 portion of the spectrum for “early recovery,” noting that under the plan “it may be possible to recover 60 MHz of spectrum almost immediately from the band 746-806 MHz, *i.e.*, UHF Channels 60-69, while protecting the relatively few full-service analog and digital broadcasters in that spectrum.”<sup>258</sup> The incumbent television broadcasters are permitted by statute to continue operations until their markets are converted to DTV,<sup>259</sup> which is not scheduled to occur until December 31, 2006, and that date may be extended under certain circumstances.<sup>260</sup> Congress has, however, directed the Commission to commence competitive bidding for licenses to use the lower 700 MHz spectrum well before the scheduled termination date of the DTV transition.<sup>261</sup> Thus, in the event that we decide to reallocate this spectrum, we will be faced with a situation that is in many respects similar to that which the Commission has recently addressed in regard to the Upper 700 MHz Band, which is currently used by Channels 60-69.<sup>262</sup> In the Upper 700 MHz proceeding, the Commission announced policies and adopted mechanisms to facilitate the voluntary clearing of the 740-806 MHz band to allow for the introduction of new

---

<sup>256</sup> See *supra* Part II.

<sup>257</sup> *DTV Sixth Further Notice*, 11 FCC Rcd at 10977, ¶ 18.

<sup>258</sup> *DTV Sixth Report and Order*, 12 FCC Rcd at 14609, ¶ 37.

<sup>259</sup> See 47 U.S.C. § 309(j)(14); see also *DTV MO&O of the Fifth Report and Order*, 13 FCC Rcd at 6887, ¶ 79.

<sup>260</sup> See 47 U.S.C. § 309(j)(14).

<sup>261</sup> See *id.* § 309(j)(14)(C).

<sup>262</sup> See *Upper 700 MHz MO&O and FNPRM*, *supra* note 28; *Upper 700 MHz Third Report and Order*, *supra* note 28.

wireless services, and to promote the early transition of analog television licensees to DTV.<sup>263</sup> In this Notice, we solicit comment as to the band clearing mechanisms and policies that would be appropriate for the 698-746 MHz band.

126. With respect to the Upper 700 MHz Band, we adopted rules and policies that allow the private sector to determine the band-clearing mechanisms that will best suit broadcasters' and potential new 700 MHz licensees' needs. In the *Upper 700 MHz Third Report and Order*, we announced our intention to rely upon voluntary band clearing agreements among incumbent broadcasters and new Upper 700 MHz licensees to open that band to new uses and accelerate the transition to DTV. In so doing, we were guided by our conclusion in our *Spectrum Reallocation Policy Statement* that a flexible, market-based approach is the most appropriate method for establishing service rules for this band.<sup>264</sup> Here, we propose to extend the rules and policies adopted in the Upper 700 MHz proceeding to voluntary clearing of the 698-746 MHz spectrum, and seek comment on this proposal.

127. As discussed above, incumbent full-power broadcast stations are entitled to interference protection throughout the DTV transition.<sup>265</sup> We acknowledge that, as a practical matter, it may be difficult to identify vacant allotments into which broadcasters may feasibly relocate, particularly in light of the larger number of incumbent analog and DTV stations on the Lower 700 MHz Band than on the Upper 700 MHz Band. In the later stages of the DTV transition, however, we expect that such opportunities will increase as other broadcasters begin to surrender analog allotments (consistent with the policies we adopted in the *Upper 700 MHz Third Report and Order*) and the DTV transition and band clearing processes gain momentum. We seek comment as to whether any particular characteristics of broadcast operations on the Lower 700 MHz Band may make it more difficult to clear this spectrum when compared with the Upper 700 MHz Band.<sup>266</sup> In addition, we pose a number of questions on issues relating to band clearing that are designed to elicit comment on whether the policies adopted in the Upper 700 MHz proceeding should be extended to the 698-746 MHz spectrum.

#### a. Voluntary Transition Agreements

128. In the Upper 700 MHz proceeding, we adopted certain policies regarding the Commission's review of regulatory requests submitted in connection with voluntary clearing agreements that are intended to facilitate clearing and streamline the review process. Among these policies were a general presumption,

---

<sup>263</sup> See *Upper 700 MHz MO&O and FNPRM*, *supra* note 28; *Upper 700 MHz Third Report and Order*, *supra* note 28.

<sup>264</sup> See *Spectrum Reallocation Policy Statement*, 14 FCC Rcd 19868.

<sup>265</sup> See *supra* Part III.A.2.

<sup>266</sup> In the *Upper 700 MHz MO&O and FNPRM*, we sought comment as to whether the regulations and mechanisms the Commission adopted in the Upper 700 MHz Proceeding to facilitate band clearing should also be employed in conjunction with the auction of spectrum currently used by Channels 52-59. See *Upper 700 MHz MO&O and FNPRM* at ¶ 105. We decided to defer that question to this proceeding, where that judgment could be better made after having gained some experience with voluntary band clearing mechanisms. See *Upper 700 MHz Third Report and Order* at ¶ 61.

standards of review, and procedural policies concerning bilateral and three-way agreements. Under bilateral agreements, broadcasters might relinquish one of their two television allotments for use by new wireless licensees. Three-way clearing agreements would provide for TV incumbents on television Channels 52-69 to relocate to lower band TV channels that, in turn, would be voluntarily cleared by the lower band TV incumbents.

129. In the Upper 700 MHz proceeding, we stated that we generally do not intend to review the wisdom of private parties' business decisions in reaching agreements, and that our role would be limited to weighing the effect on the public interest of regulatory requests made in connection with such agreements.<sup>267</sup> With respect to our review of such regulatory requests, we established a rebuttable presumption that, in certain circumstances, substantial public interest benefits will arise from a voluntary agreement between a 700 MHz licensee and an incumbent broadcast licensee on Channels 59-69 that clears the Upper 700 MHz Band of incumbent television licensee(s). We stated that we would presume that the public interest is substantially furthered when an applicant demonstrates that the grant of its request will both result in certain specific benefits and avoid specific detriments.<sup>268</sup> In particular, to obtain this presumption, an applicant must first demonstrate that grant of its request would result in one of the following: (1) make new or expanded wireless service, such as "2.5G" or "3G" services, available to consumers; (2) clear commercial frequencies that enable provision of public safety services; or (3) result in the provision of wireless service to rural or other underserved communities.<sup>269</sup> To obtain the presumption, the applicant must also show that grant of its request would not result in any one of the following: (1) the loss of any of the four stations in the designated market area with the largest audience share; (2) the loss of the sole service licensed to the local community; or (3) the loss of a community's sole service on a channel reserved for noncommercial educational broadcast service.<sup>270</sup> However, this presumption is not conclusive or dispositive.<sup>271</sup> When the presumption is not established or is rebutted, the Commission will review regulatory requests by weighing the loss of service and the advent of new wireless service on a case-by-case basis.<sup>272</sup> In addition, we adopted various procedural changes in order to streamline the process of reviewing regulatory requests that are necessary to effectuate private band-clearing agreements, and affirmed our commitment to process regulatory requests associated with relocation agreements expeditiously.<sup>273</sup>

130. We propose to extend these policies to band clearing agreements involving broadcasters in the 698-740 MHz band. We seek comment on this proposal. We also request input as to whether the streamlined

---

<sup>267</sup> See *Upper 700 MHz MO&O and FNPRM* at ¶ 58.

<sup>268</sup> *Id.* at ¶¶ 60-61.

<sup>269</sup> See *id.* at ¶ 61; see also *Upper 700 MHz Third Report and Order* at ¶ 16.

<sup>270</sup> See *Upper 700 MHz MO&O and FNPRM* at ¶ 61; see also *Upper 700 MHz Third Report and Order*, at ¶ 16.

<sup>271</sup> See *Upper 700 MHz MO&O and FNPRM* at ¶ 61; see also *Upper 700 MHz Third Report and Order*, at ¶ 16.

<sup>272</sup> See *Upper 700 MHz Third Report and Order* at ¶ 16.

<sup>273</sup> See *id.* at ¶¶ 19-28.

procedural policies could be improved to facilitate such agreements. While we do not intend to entertain collateral attacks on our Upper 700 MHz policy, we invite commenters to explain any particular differences about Channels 52-58, such as the impact that the greater numbers of broadcast incumbents may have on the recovery of this band, which may warrant a change from our policy with regard to the voluntary band clearing agreements for Channels 59-69.

#### **b. Secondary Auctions**

131. A secondary band clearing auction would be a mechanism to determine the price that would be paid by new licensees to TV incumbents who agree to clear their channels. We recognized in the Upper 700 MHz proceeding that a secondary auction mechanism may produce significant benefits. Thus, we observed in the *Upper 700 MHz Third Report and Order*:

A secondary auction may encourage band clearing in a more systematic and comprehensive fashion than would be the case with individual *ad hoc* clearing arrangements among incumbent broadcasters and winning bidders. A secondary auction may give potential wireless licensees greater certainty that the spectrum will be cleared. The efficiency of such a secondary market mechanism is likely to ensure that the spectrum is employed in the most highly valued economic use.<sup>274</sup>

We propose here to leave any such auction to private, voluntary efforts that are otherwise consistent with our stated policies and do not interfere with the proper functioning of the Commission's spectrum auction processes.<sup>275</sup> Our proposal is based on our belief that, as we stated in the *Upper 700 MHz Third Report and Order*, "the private sector is better suited to determine what mechanisms interested parties might demand and to implement a secondary auction in a manner that is most responsive to broadcasters' and potential bidders' needs."<sup>276</sup>

132. We seek comment on all aspects of this approach. In this regard, we invite commenters to identify any existing regulations or policies that may unnecessarily restrict the operation of such private, voluntary band clearing mechanisms.

#### **c. Additional Proposals to Facilitate Band Clearing Accelerate the Digital Television Transition**

133. In the Upper 700 MHz proceeding, we solicited ideas on additional proposals that might accelerate the DTV transition.<sup>277</sup> A number of commenters used that opportunity to request relief on a number

---

<sup>274</sup> See *Upper 700 MHz Third Report and Order* at ¶ 41 (citing *Spectrum Reallocation Policy Statement*, 14 FCC Rcd at 19870, ¶ 9).

<sup>275</sup> As we explained in the *Upper 700 MHz Third Report and Order*, we expect that participants in any secondary auction would remain mindful of federal antitrust laws and our anti-collusion rules. See *Upper 700 MHz Third Report and Order* at ¶¶ 45-47.

<sup>276</sup> See *id.* at ¶ 42.

<sup>277</sup> See *Upper 700 MHz MO&O and FNPRM* at ¶ 104.



of issues related to the DTV transition, such as urging the adoption of DTV must-carry rules, in order to encourage clearing.<sup>278</sup> To the extent that these issues are before the Commission in separate proceedings, we will not address them here.<sup>279</sup> As we did in the Upper 700 MHz proceeding, we invite comment on other related proposals to facilitate band clearing and expedite the DTV transition, such as the possible use of cost-sharing rules, cost recovery limitations, or band sharing. We note that financial payments to cable operators or satellite carriers for the voluntary carriage of broadcast signals might facilitate clearance of the band on a more rapid basis.

134. *Cost-Sharing Rules and Limitations on Cost Recovery.* While the Commission has at times relied on cost-sharing rules and limitations on cost recovery to assist in clearing other bands so as to enable faster deployment of new services,<sup>280</sup> in the *Upper 700 MHz Third Report and Order*, we concluded that it would not be necessary or appropriate to adopt cost-sharing rules or caps on clearing costs.<sup>281</sup> In reaching those conclusions, we reasoned that we could rely on market forces to produce any desirable cost-sharing relationships, and that private parties are best suited to assess, quantify, and reach agreement on the appropriate sharing of risk.<sup>282</sup> We tentatively conclude that we should similarly rely on market forces to apportion all costs to facilitate clearing of the 698-746 MHz band, and that limitations on the recovery of such costs would not be appropriate at this time. We seek comment on this tentative conclusion and on whether we should consider other alternative approaches.

135. *Spectrum Sharing and Other Proposals to Facilitate Early Transition.* In the *Upper 700 MHz MO&O and FNPRM*, we sought comment on two additional proposals to accelerate the digital television transition: sharing of the 700 MHz spectrum between broadcasters and new wireless licensees, and sharing between broadcasters during the transition.<sup>283</sup> We received no comments on the possible sharing of 700 MHz spectrum between incumbent broadcasters and new licensees, and one comment in support of sharing by a

---

<sup>278</sup> See *id.* at ¶¶ 48, 53.

<sup>279</sup> See, e.g., Carriage of Digital Television Broadcast Signals, CS Docket No. 98-120, *First Report and Order and Further Notice of Proposed Rulemaking*, FCC 01-22, ¶¶ 52-56 (rel. Jan. 23, 2001); WHDT-DT Channel 59, Stuart, Florida, Petition for Declaratory Ruling that Digital Broadcast Stations Have Mandatory Carriage Rights, CSR-5562-Z, *Memorandum Opinion and Order*, FCC 01-23, ¶¶ 12-15 (rel. Jan. 23, 2001); Ancillary and Supplementary Use of Digital Television Capacity by Noncommercial Licensees, *Notice of Proposed Rule Making*, 14 FCC Rcd 537 (1998) (considering permissible DTV operations by noncommercial broadcasters).

<sup>280</sup> See Amendment to the Commission's Rules Regarding a Plan for Sharing the Costs of Microwave Relocation, WT Docket No. 95-157, *First Report and Order and Further Notice of Proposed Rule Making*, 11 FCC Rcd 8825 (1996); Amendment to the Commission's Rules Regarding A Plan for Sharing the Costs of Microwave Relocation, WT Docket No. 95-157, *Second Report and Order*, 12 FCC Rcd 2705 (1997); Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, *Second Report and Order*, 12 FCC Rcd 19079, 19114-26, ¶¶ 96-132 (1997); *Upper 700 MHz Third Report and Order* at ¶¶ 48-50.

<sup>281</sup> *Upper 700 MHz Third Report and Order* at ¶¶ 6-9, 48-50.

<sup>282</sup> See *id.* at ¶¶ 9, 50.

<sup>283</sup> See *Upper 700 MHz MO&O and FNPRM* at ¶ 104.

broadcaster of another television station's digital spectrum under certain circumstances.<sup>284</sup> We recognize that it is technically feasible for two or more DTV signals to be broadcast in a single six megahertz allotment. Sharing between broadcasters and some types of new services may be technically feasible as well.

136. In this regard, we seek comment as to whether the Commission should allow incumbent broadcasters and new service providers to share spectrum in time and/or bits, provided such arrangements are otherwise consistent with the objectives of this proceeding and the DTV transition. This proposal would preserve broadcast service while also providing opportunity for new service providers to commence service. In addition, sharing arrangements may assist broadcasters in rapidly transitioning to digital service. Similarly, we request comment on whether we should permit broadcasters to share DTV facilities and spectrum during the transition. This proposal may facilitate clearing of in-core channels for relocation of television operations on out-of-core channels.

#### IV. PROCEDURAL MATTERS

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

137. This is a permit-but-disclose notice and comment rulemaking proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed pursuant to the Commission's Rules.<sup>285</sup>

##### B. Initial Regulatory Flexibility Analysis

138. As required by the Regulatory Flexibility Act of 1980 (RFA),<sup>286</sup> the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules proposed in the Notice.<sup>287</sup> The analysis is found in Appendix C. We request written public comment on the analysis. Comments must be filed in accordance with the same filing deadlines as comments filed in this rulemaking proceeding, and must have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer Information Bureau, Reference Information Center, will send a copy of this Notice, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.

##### C. Initial Paperwork Reduction Analysis

139. This Notice may contain a proposed information collection. As part of our continuing effort to reduce paperwork burdens, we invite the general public and the Office of Management and Budget (OMB) to take this opportunity to comment on the information collections contained in this Notice, as required by the

---

<sup>284</sup> See *Upper 700 MHz Third Report and Order* at ¶¶ 57-58.

<sup>285</sup> See generally 47 C.F.R. §§ 1.1202, 1.1203, 1.1206.

<sup>286</sup> 5 U.S.C. § 603.

<sup>287</sup> See *infra* Appendix C.

Paperwork Reduction Act of 1995.<sup>288</sup> Public and agency comments are due at the same time as other comments on this Notice; OMB comments are due 60 days from the date of publication of this Notice in the Federal Register. Comments should address: (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

140. Written comments by the public on the proposed information collections are due May 14, 2001. Written comments must be submitted by the OMB on the proposed and/or modified information collections on or before 60 days after the date of publication in the Federal Register. In addition to filing comments with the Secretary, a copy of any comments on the information collections contained herein should be submitted to Judy Boley, Federal Communications Commission, 445 12<sup>th</sup> Street, S.W., Room 1-C804, Washington, D.C. 20554, or via the Internet to [jboley@fcc.gov](mailto:jboley@fcc.gov), and to Edward C. Springer, OMB Desk Officer, 10236 New Executive Office Building, 725 17<sup>th</sup> Street, N.W., Washington, D.C. 20503 or via the Internet to [Edward.Springer@omb.eop.gov](mailto:Edward.Springer@omb.eop.gov).

#### D. Comment Period and Procedures

141. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules,<sup>289</sup> interested parties may file comments on this Notice on or before May 14, 2001 and reply comments on or before June 4, 2001. Comments and reply comments should be filed in GN Docket No. 01-74, and may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.<sup>290</sup> All relevant and timely comments will be considered by the Commission before final action is taken in this proceeding.

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

143. Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number. If parties want each

---

<sup>288</sup> Pub. L. No. 104-13.

<sup>289</sup> 47 C.F.R. §§ 1.415, 1.419.

<sup>290</sup> *Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24121 (1998).

Commissioner to receive a personal copy of their comments, they must file an original plus nine copies. All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, 445 12<sup>th</sup> Street, S.W., Room TW-A325, Washington, D.C. 20554. Furthermore, parties are requested to provide courtesy copies for the following Commission staff: (1) Lisa Gaisford, Office of Engineering and Technology, Federal Communications Commission, 445 12<sup>th</sup> Street, S.W., Room. 7-C115, Washington, D.C. 20554; and (2) G. William Stafford, Commercial Wireless Division, Wireless Telecommunications Bureau, Federal Communications Commission, 445 12<sup>th</sup> Street, S.W., Room. 4-B455, Washington, D.C. 20554. One copy of each filing (together with a diskette copy, as indicated below) should also be sent to the Commission's copy contractor, International Transcription Service, Inc., (ITS, Inc.), 1231 20<sup>th</sup> Street, N.W., Washington, D.C. 20036.

144. Parties who choose to file by paper should also submit their comments on diskette. These diskettes should be attached to the original paper filing submitted to the Office of the Secretary. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible format using Microsoft<sup>™</sup> Word 97 for Windows or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding, type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy – Not an Original." Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters should send diskette copies to the Commission's copy contractor, ITS, Inc., 1231 20<sup>th</sup> Street, N.W., Washington, D.C. 20036.

145. The public may view the documents filed in this proceeding during regular business hours in the FCC Reference Information Center, Federal Communications Commission, 445 12<sup>th</sup> Street, S.W., Room CY-A257, Washington, D. C. 20554, and on the Commission's Internet Home Page: <http://www.fcc.gov>. Copies of comments and reply comments are also available through the Commission's duplicating contractor: ITS, Inc., 1231 20<sup>th</sup> Street, N.W., Washington, D.C. 20036, (202) 857-3800.

#### **E. Further Information**

146. For further information concerning this rulemaking proceeding, contact the following for:

Allocation Issues: Lisa Gaisford at (202) 418-7280, Office of Engineering and Technology, Federal Communications Commission, Washington, D.C. 20554; or via the Internet to [lgaisfor@fcc.gov](mailto:lgaisfor@fcc.gov)

Service Rules Issues: G. William Stafford at (202) 418-0563, Wireless Telecommunications Bureau, Federal Communications Commission, Washington, D.C. 20554; or via the Internet to [wstaffor@fcc.gov](mailto:wstaffor@fcc.gov).

#### **V. ORDERING CLAUSES**

147. Accordingly, IT IS ORDERED, pursuant to Sections 1, 2, 4(i), 7, 10, 201, 202, 208, 214, 301, 302, 303, 307, 308, 309, 310, 311, 316, 319, 324, 331, 332, 333, 336, 337, 614 and 615 of the Communications Act of 1934, 47 U.S.C. §§ 151, 152, 154(i), 157, 160, 201, 202, 208, 214, 301, 302a, 303, 307, 308, 309, 310, 311, 316, 319, 324, 331, 332, 333, 336, 337, 534, 535, that this Notice of Proposed Rulemaking is hereby ADOPTED.

148. IT IS FURTHER ORDERED that NOTICE IS HEREBY GIVEN of the proposed regulatory changes described in this Notice, and that comment is sought on these proposals.

149. IT IS FURTHER ORDERED that the Commission's Consumer Information Bureau, Reference Information Center, SHALL SEND a copy of this Notice, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas  
Secretary

**APPENDIX A: Proposed Rules**

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

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

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

AUTHORITY: 47 U.S.C. 154, 302a, 303 and 336, unless otherwise noted.

2. Section 2.106, the Table of Frequency Allocations, is amended as follows:
  - a. Revise page 37.
  - b. In the International Footnotes under heading I., revise footnotes S5.293, S5.296, and S5.297.
  - c. In the list of non-Government (NG) Footnotes, revise footnotes NG149 and NG159.

The revisions and additions read as follows:

**§ 2.106 Table of Frequency Allocations.**

\* \* \* \* \*

International Table		United States Table		FCC Rule Part(s)	
Region 1	Region 2	Region 3	Federal Government	Non-Federal Government	
470-790 BROADCASTING	470-512 BROADCASTING Fixed Mobile	470-585 FIXED MOBILE BROADCASTING	470-608	470-512 BROADCASTING NG128 NG149 FIXED NG127 LAND MOBILE NG66 NG114	Public Mobile (22) Broadcast Radio (TV) (73) Auxiliary Broadcasting (74) Private Land Mobile (90)
	S5.292 S5.293	S5.291 S5.298		512-608 BROADCASTING NG128 NG149	Broadcast Radio (TV) (73) Auxiliary Broadcasting (74)
	512-608 BROADCASTING	585-610 FIXED MOBILE BROADCASTING RADIONAVIGATION			
	S5.297				
	608-614 RADIO ASTRONOMY Mobile-satellite except aeronautical mobile- satellite (Earth-to-space)	S5.149 S5.305 S5.306 S5.307 610-890 FIXED MOBILE S5.317A BROADCASTING	608-614 RADIO ASTRONOMY US74 LAND MOBILE US350		Personal (95)
	614-806 BROADCASTING Fixed Mobile		US246 614-890	614-698 BROADCASTING NG128 NG149	Broadcast Radio (TV) (73) Auxiliary Broadcasting (74)
				698-746 BROADCASTING NG128 FIXED MOBILE NG159	Wireless Communications (27) Broadcast Radio (TV) (73) Auxiliary Broadcasting (74)

470-849 MHz (UHF)

Page 37

## INTERNATIONAL FOOTNOTES

\*\*\*\*\*

## I. New "S" Numbering Scheme

\*\*\*\*\*

S5.293 Different category of service: in Canada, Chile, Colombia, Cuba, the United States, Guyana, Honduras, Jamaica, Mexico, Panama and Peru, the allocation of the bands 470-512 MHz and 614-806 MHz to the fixed and mobile services is on a primary basis (see No. S5.33), subject to agreement obtained under No. S9.21. In Argentina and Ecuador, the allocation of the band 470-512 MHz to the fixed and mobile services is on a primary basis (see No. S5.33), subject to agreement obtained under No. S9.21.

\*\*\*\*\*

S5.296 Additional allocation: in Germany, Austria, Belgium, Cyprus, Denmark, Spain, Finland, France, Ireland, Israel, Italy, Libya, Lithuania, Malta, Morocco, Monaco, Norway, the Netherlands, Portugal, Syria, the United Kingdom, Sweden, Switzerland, Swaziland and Tunisia, the band 470-790 MHz is also allocated on a secondary basis to the land mobile service, intended for applications ancillary to broadcasting. Stations of the land mobile service in the countries listed in this footnote shall not cause harmful interference to existing or planned stations operating in accordance with the Table in countries other than those listed in this footnote.

S5.297 Additional allocation: in Costa Rica, Cuba, El Salvador, the United States, Guatemala, Guyana, Honduras, Jamaica and Mexico, the band 512-608 MHz is also allocated to the fixed and mobile services on a primary basis, subject to agreement obtained under No. S9.21.

## NON-GOVERNMENT (NG) FOOTNOTES

\*\*\*\*\*

NG149 The frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz, 470-512 MHz, 512-608 MHz, and 614-698 MHz are also allocated to the fixed service to permit subscription television operations in accordance with Part 73 of the rules.

\*\*\*\*\*

NG159 Full power analog television stations licensed and new digital television (DTV) broadcasting operations in the band 698-806 MHz shall be entitled to protection from harmful interference until the end of the DTV transition period. Low power television and television translators in the band 746-806 MHz must cease operations in the band at the end of the DTV transition period. Low power television and television translators in the band 698-746 MHz are secondary to all other operations in the band 698-746 MHz.



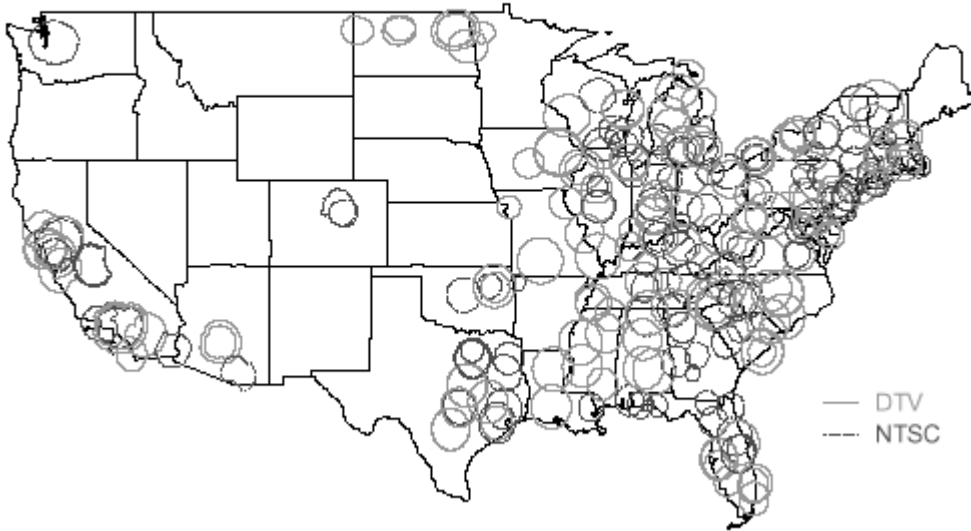
**APPENDIX B: Incumbent TV Operations**

The following pages contain maps showing the Grade B contours of all co-channel and adjacent channel TV stations on Channels 52-59 in the United States.

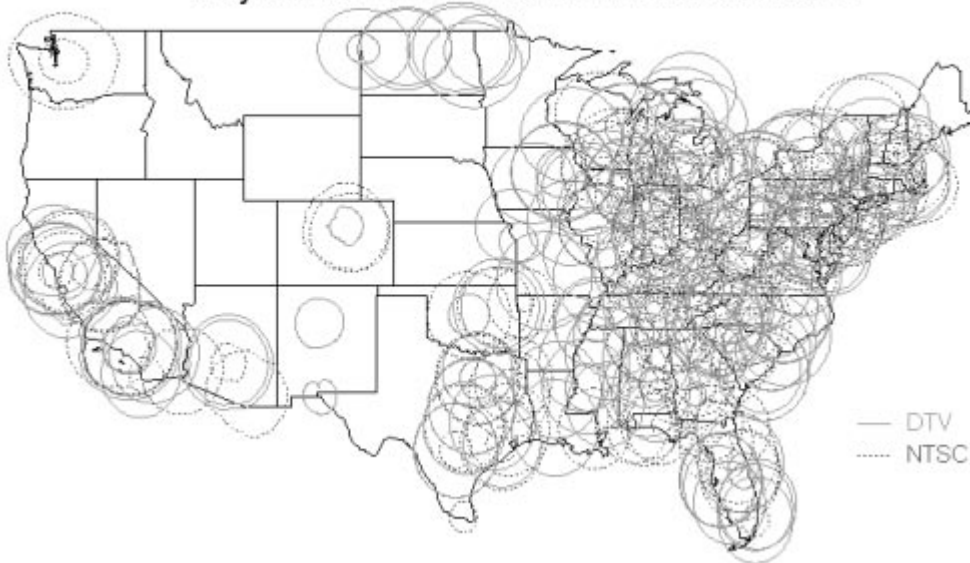
Maps Showing the Following are Attached:

Channels 52-59:	DTV and NTSC Incumbents: Grade B Contours
Channels 52-59:	DTV and NTSC Incumbents: Adjacent and Co-Channel Protection Zones
Channel 52:	DTV and NTSC Incumbents: Adjacent and Co-Channel Protection Zones
Channel 53:	DTV and NTSC Incumbents: Adjacent and Co-Channel Protection Zones
Channel 54:	DTV and NTSC Incumbents: Adjacent and Co-Channel Protection Zones
Channel 55:	DTV and NTSC Incumbents: Adjacent and Co-Channel Protection Zones
Channel 56:	DTV and NTSC Incumbents: Adjacent and Co-Channel Protection Zones
Channel 57:	DTV and NTSC Incumbents: Adjacent and Co-Channel Protection Zones
Channel 58:	DTV and NTSC Incumbents: Adjacent and Co-Channel Protection Zones
Channel 59:	DTV and NTSC Incumbents: Adjacent and Co-Channel Protection Zones
Channels 52-59:	LPTV Stations

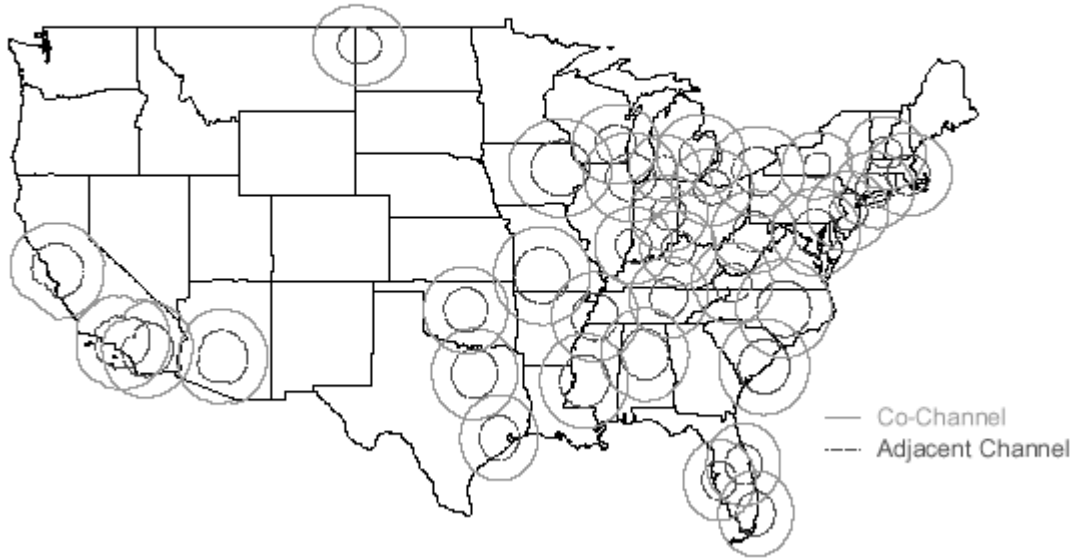
Channels 52 to 59: DTV & NTSC Incumbents  
Grade B Contours



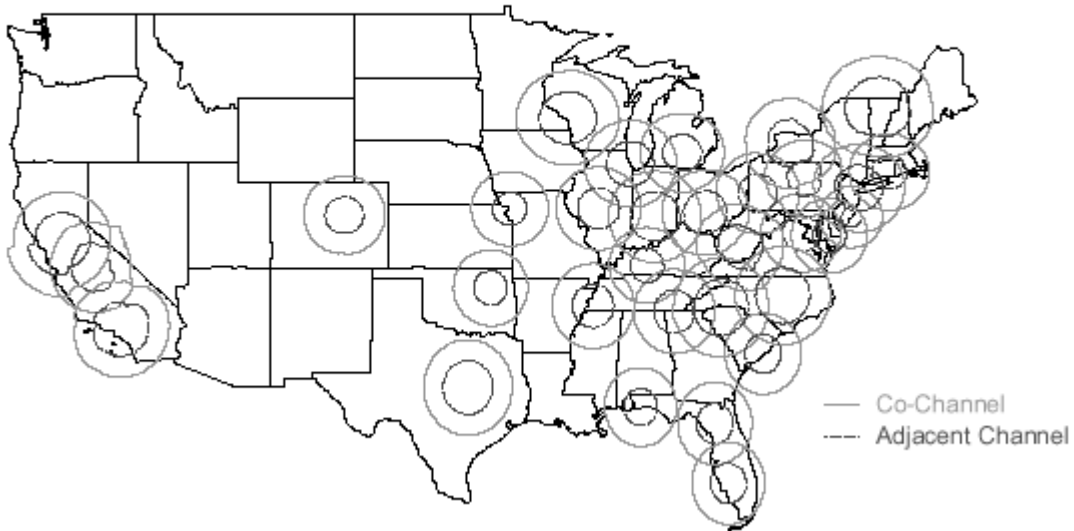
Channels 52 to 59: DTV & NTSC Incumbents  
Adjacent and Co-Channel Protection Zone



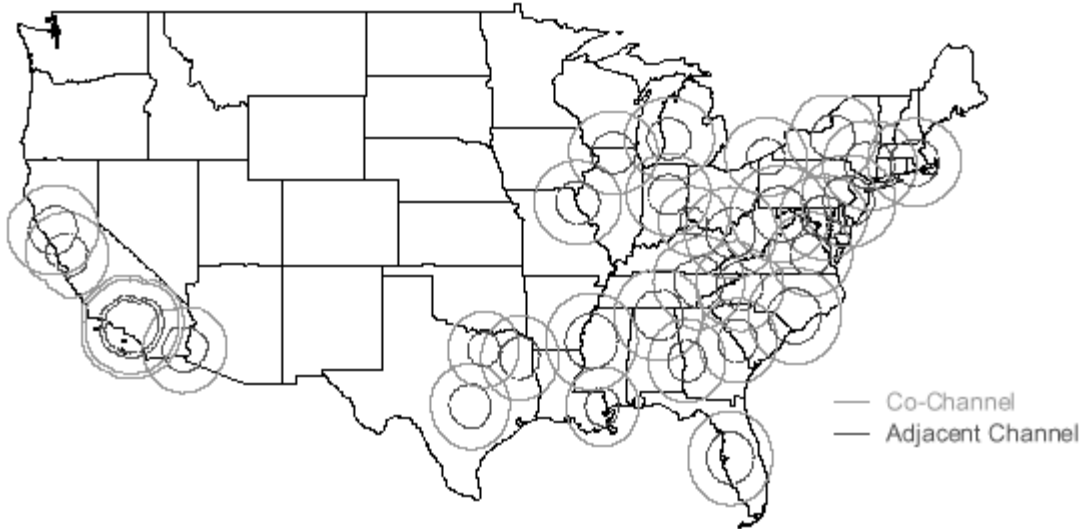
Channel 52: DTV & NTSC Incumbents  
Adjacent & Co-Channel Protection Zones



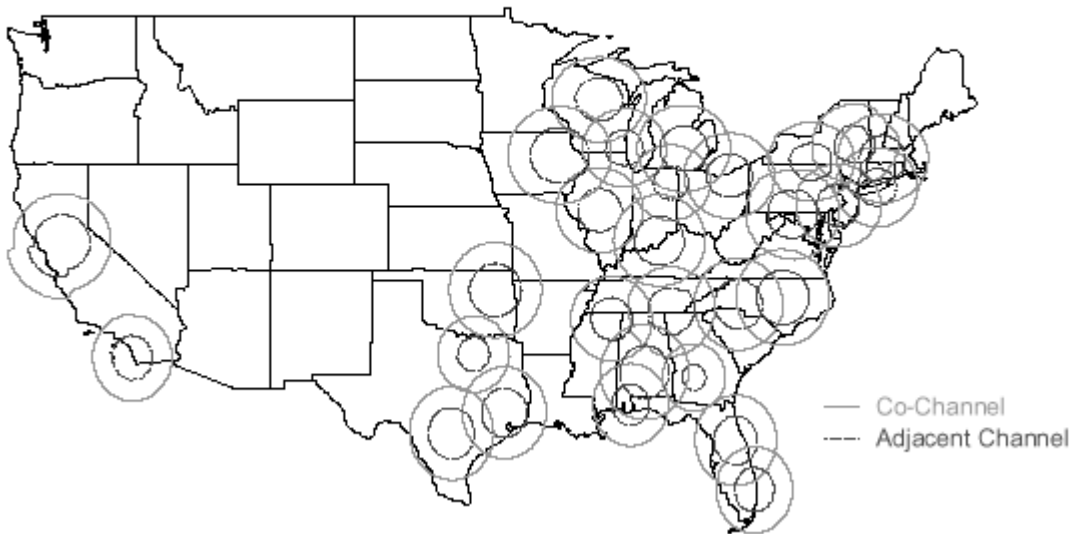
Channel 53: DTV & NTSC Incumbents  
Adjacent & Co-Channel Protection Zones



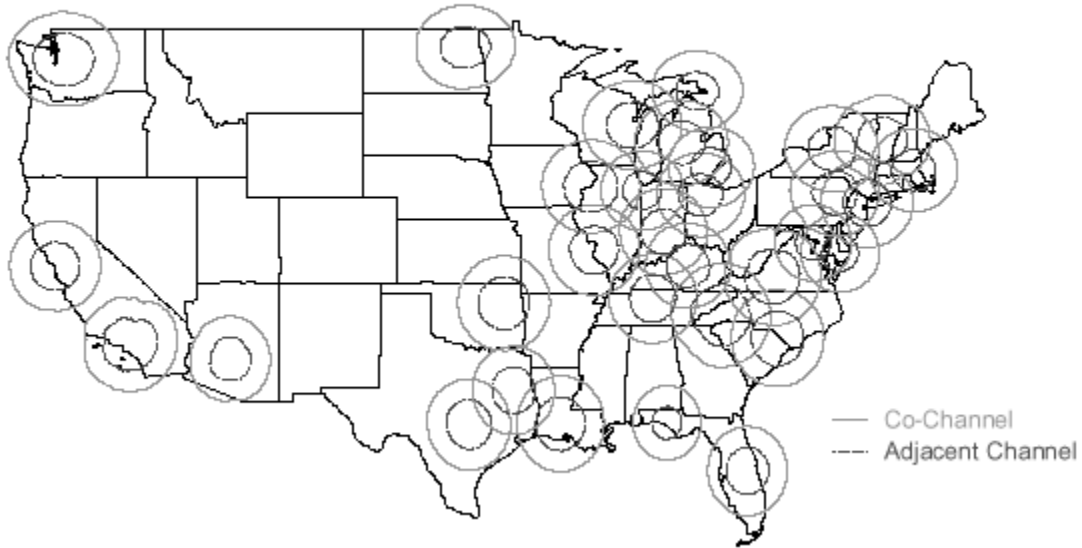
Channel 54: DTV & NTSC Incumbents  
Adjacent & Co-Channel Protection Zones



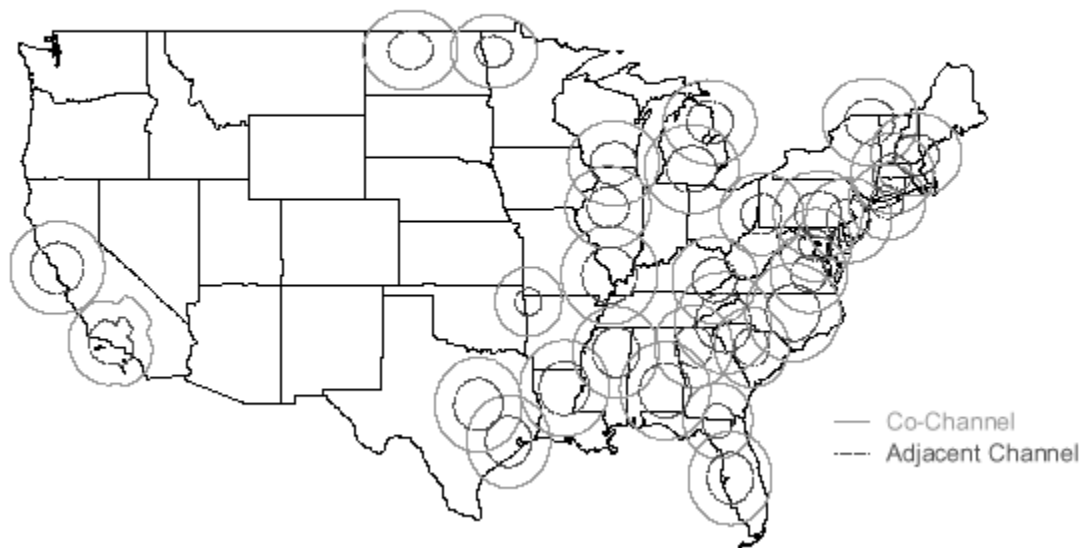
Channel 55: DTV & NTSC Incumbents  
Adjacent & Co-Channel Protection Zones



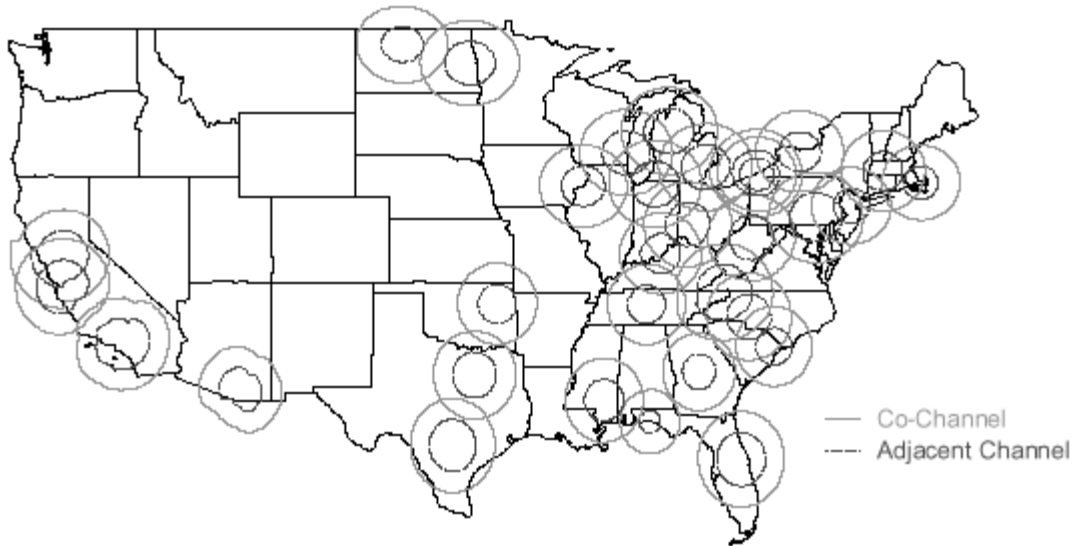
Channel 56: DTV & NTSC Incumbents  
Adjacent & Co-Channel Protection Zones



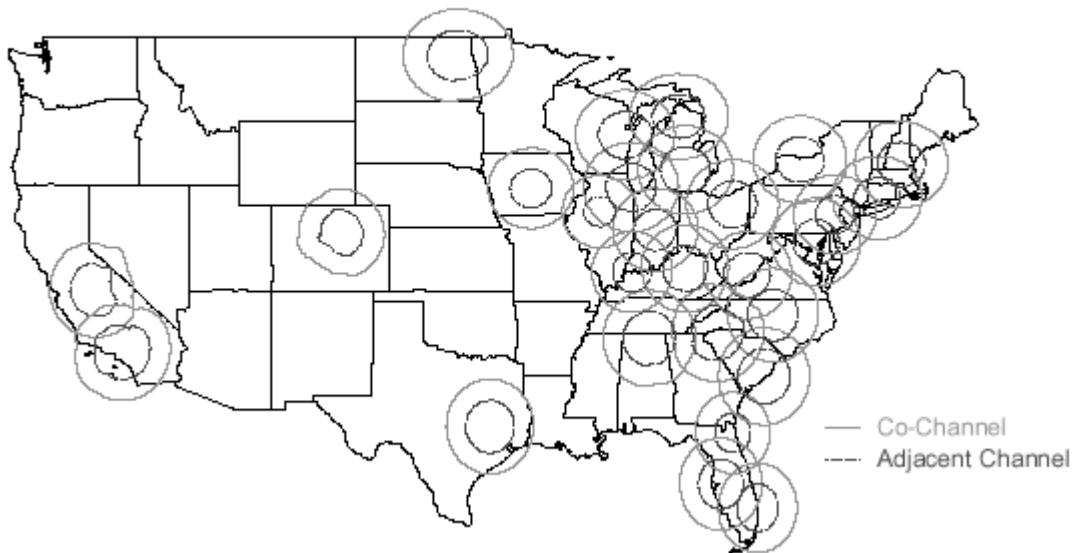
Channel 57: DTV & NTSC Incumbents  
Adjacent & Co-Channel Protection Zones

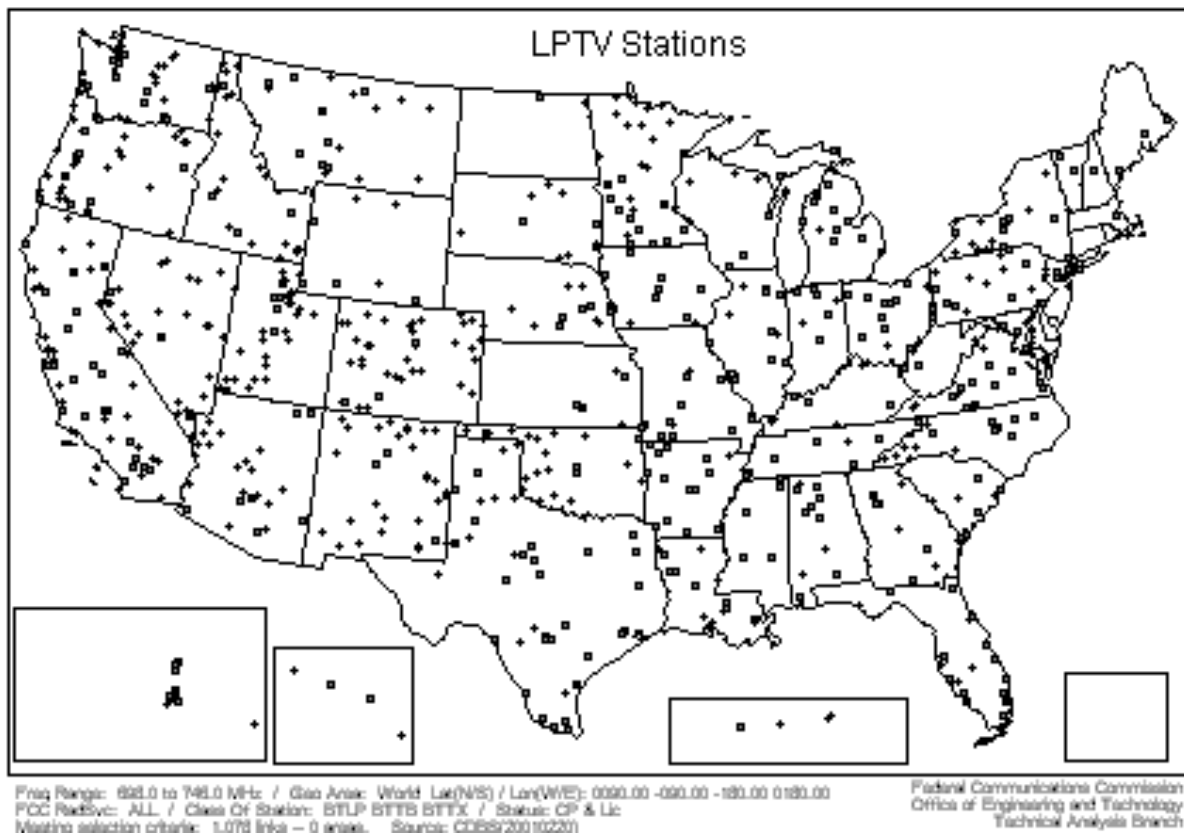


Channel 58: DTV & NTSC Incumbents  
Adjacent & Co-Channel Protection Zones



Channel 59: DTV & NTSC Incumbents  
Adjacent & Co-Channel Protection Zones





## APPENDIX C: Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act (“RFA”),<sup>1</sup> the Commission has prepared this Initial Regulatory Flexibility Analysis (“IRFA”) of the possible significant economic impact on small entities by the policies and rules proposed in this Notice of Proposed Rulemaking (“Notice”), GN Docket No. 01-74. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Notice as provided above in paragraph 141. The Commission will send a copy of the Notice, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (“SBA”).<sup>2</sup> In addition, the Notice and IRFA (or summaries thereof) will be published in the Federal Register.<sup>3</sup>

### A. Need for, and Objectives of, the Proposed Rules

2. This Notice is part of the Commission’s plan to reclaim the 698-746 MHz band (“698-746 MHz band” or “Lower 700 MHz Band”), currently used for television (“TV”) Channels 52-59, for new commercial services as part of our transition of TV broadcasting from analog to digital transmission systems, consistent with the statutory directives enacted in the Balanced Budget Act of 1997.<sup>4</sup> This Notice consists of two parts. First, the Notice proposes to reallocate the 698-746 MHz band, currently used for TV Channels 52-59, from use solely for broadcast services to Fixed, Mobile, and Broadcast services. Second, the Notice proposes to adopt certain service, licensing, and competitive bidding rules for the 698-746 MHz band.

3. The Notice proposes to reallocate the entire 48 megahertz of spectrum in the 698-746 MHz band to the fixed and mobile services, and retain the existing broadcast allocation. The Notice also seeks comment on whether the band should also be allocated for satellite services.

4. In this Notice, we also propose to license the 698-746 MHz commercial band under a flexible framework established in Part 27 of the Commission’s Rules. We expect that provisions of Part 27 will be modified to reflect the particular characteristics and circumstances of services offered through the use of spectrum on these bands. Depending on the extent and nature of provisions in the service rules that enable broadcast services, these modifications may also reference or incorporate rules in other Parts of the Commission’s Rules, such as Part 73 governing broadcast services. We believe that this flexible approach will encourage new and innovative services and technologies in this band without significantly limiting the range of potential uses for this spectrum.

5. The Notice proposes to apply the same small business definitions here that the Commission adopted for the Upper 700 MHz Band. In particular, the Notice proposes to define a “small business” as an

---

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

<sup>2</sup> See 5 U.S.C. § 603(a).

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

<sup>4</sup> See Balanced Budget Act of 1997, Pub. L. No. 105-33, 111 Stat. 251 (1997).



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. The Notice reflects the Commission’s belief that the services that will be deployed in this band will have similar capital requirements to the commercial services in the Upper 700 MHz Band, and thus proposes to apply the same small business definitions. The Notice also observes that new licensees both in this band and the Upper 700 MHz Band may be presented with similar issues and costs, including those involved in relocating incumbents and developing markets, technologies, and services. The Notice also seeks alternative standards proposals, and specifically seeks comment on whether we should adopt an additional definition for entities with average annual gross revenues for the three preceding years of not more than \$3 million.<sup>5</sup>

6. Among our principal objectives in this proceeding are: (1) to license these commercial spectrum blocks through competitive bidding, as directed by the Balanced Budget Act of 1997; (2) to accommodate the introduction of new uses of spectrum and the enhancement of existing uses; (3) to implement the Section 303(y) requirement that flexible use allocations not create harmful interference or discourage investment; (4) to facilitate the awarding of licenses to entities that value them the most. The Commission seeks to develop a regulatory plan for these commercial spectrum blocks that will allow for efficient licensing and intensive use of the band, eliminate unnecessary regulatory burdens, enhance the competitive potential of the band, and provide a wide variety of radio services to the public.

#### **B. Legal Basis for Proposed Rules**

7. This action is authorized under Sections 1, 2, 4(i), 7, 10, 201, 202, 208, 214, 301, 302, 303, 307, 308, 309, 310, 311, 316, 319, 324, 331, 332, 333, 336, 337, 614 and 615 of the Communications Act of 1934, 47 U.S.C. §§ 151, 152, 154(i), 157, 160, 201, 202, 208, 214, 301, 302a, 303, 307, 308, 309, 310, 311, 316, 319, 324, 331, 332, 333, 336, 337, 534, 535.

#### **C. Description and Estimate of the Number of Small Entities To Which the Proposed Rules Will Apply**

8. The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities to which the rule will apply or an explanation of why no such estimate is available.<sup>6</sup> The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction” under section 3 of the Small Business Act.<sup>7</sup> In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.<sup>8</sup> Under the Small Business Act, a “small business concern” is one which: (1) is independently

---

<sup>5</sup> See *supra* NPRM paras. 120-21.

<sup>6</sup> See 5 U.S.C. § 604(a)(3).

<sup>7</sup> See *id.* § 601(6).

<sup>8</sup> See *id.* § 601(3) (incorporating by reference the definition of “small business concern” in 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.

owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.<sup>9</sup> According to SBA reporting data, there were approximately 4.44 million small business firms nationwide in 1992.<sup>10</sup> A small organization is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”<sup>11</sup> Nationwide, as of 1992, there were approximately 275,801 small organizations.<sup>12</sup> “Small governmental jurisdiction” generally means “governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000.”<sup>13</sup> As of 1992, there were approximately 85,006 local governments in the United States.<sup>14</sup> This number includes 38,978 counties, cities, and towns; of these, 37,566, or 96 percent, have populations of fewer than 50,000.<sup>15</sup> The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that 81,600 (96 percent) are small entities. Below, we further describe and estimate the number of small entity licensees and regulatees that may be affected by the proposed rules, if adopted.

9. The proposals in this Notice affect applicants who wish to provide services in the 698-746 MHz band. The Notice proposes to apply the same small business definitions here that the Commission adopted for the Upper 700 MHz Band. In particular, the Notice proposes 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.<sup>16</sup> The Notice reflects the Commission’s belief that the services that will be deployed in this band will have similar capital requirements to the commercial services in the Upper 700 MHz Band, and thus proposes to apply the same small business definitions. The Notice also observes that new licensees both in this band and the Upper 700 MHz Band may be presented with similar issues and costs, including those involved in relocating incumbents and developing markets, technologies, and services. The Notice also seeks alternative standards proposals, which consider the impact of our band plan on small business size standards. The Notice specifically seeks comment on whether we should adopt an additional definition for entities with average annual gross revenues for the three preceding years of not more than \$3 million.

---

<sup>9</sup> See 15 U.S.C. § 632.

<sup>10</sup> See 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

<sup>11</sup> See 5 U.S.C. § 601(4).

<sup>12</sup> See 1992 Economic Census, U.S. Bureau of the Census, Table 6.

<sup>13</sup> See 5 U.S.C. § 601(5).

<sup>14</sup> See U.S. Dept. of Commerce, Bureau of the Census, “1992 Census of Governments.”

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

<sup>16</sup> See 47 C.F.R. § 27.502(a)(1)-(2); see also 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*, 15 FCC Rcd 476, 529-31, ¶¶ 131-36 (2000) (*Upper 700 MHz First Report and Order*). These definitions are consistent with the Commission’s approach in the broadband PCS services. See 47 C.F.R. § 24.720(b).

10. The Commission used these same small business size definitions for Blocks C and F broadband PCS licensees.<sup>17</sup> This regulation defining “small business” and “very small business” in the context of broadband PCS auctions has been approved by the SBA.<sup>18</sup> The Commission has also adopted this same definition for 746-764 and 776-794 MHz applicants.<sup>19</sup>

11. The Commission, however, has not yet determined or proposed how many licenses will be awarded, nor will it know how many entities will seek small business or very small business status until the auction process begins. Even after that, the Commission will not know how many licensees will partition their license areas or disaggregate their spectrum blocks, if partitioning and disaggregation are allowed. In view of our lack of knowledge of the entities which will seek licenses in the 698-746 MHz band, we therefore assume that, for purposes of our evaluations and conclusions in the IRFA, all of the prospective licenses are small entities, as that term is defined by the SBA or our proposed definitions for these bands.

12. **Wireless services.** The policies and rules proposed in the Notice would affect all small entities that seek to acquire licenses in wireless services in the Lower 700 MHz Band currently used for television broadcasts on Channels 52-58, or are incumbent television broadcasters on Channels 52-58.<sup>20</sup> As noted *supra*, we propose to use the small and very small business size standard adopted in the PCS proceeding.<sup>21</sup> No channelization plan or licensing plan has been proposed or adopted for the Lower 700 MHz Band. Therefore, no reasonable estimate can be made at this time of the potential number of small entities that might become licensees in the Lower 700 MHz Band.<sup>22</sup>

13. **Television Broadcast.** The SBA defines a television broadcasting station as a small business where it is independently owned and operated, is not dominant in its field of operation, and has no more than \$10.5 million in annual receipts.<sup>23</sup> Television broadcasting stations consist of establishments primarily engaged in broadcasting visual programs by television to the public, except cable and other pay television

---

<sup>17</sup> See 47 C.F.R. § 24.720(b)

<sup>18</sup> See Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, PP Docket No. 93-253, *Fifth Report and Order*, 9 FCC Rcd 5532, 5581-82 ¶ 115 (1994).

<sup>19</sup> See 47 C.F.R. § 27.210(b)(1)-(2).

<sup>20</sup> See *supra* text accompanying NPRM note 2.

<sup>21</sup> See *supra* NPRM paras. 120-21. We note that the SBA generic size standard applicable to Radiotelephone (Wireless) companies provides that a small entity is a radiotelephone company employing no more than 1,500 persons. See 13 C.F.R. § 121.201 (NAICS code 513322). According to the Bureau of the Census, only 12 radiotelephone firms from a total of 1,178 such firms which operated during 1992 had 1,000 or more employees. See *1992 Census, Series UC92-S-1*, at Table 5 (SIC code 4812). Therefore, even if all 12 of these firms were wireless companies, nearly all wireless carriers were small businesses under the SBA's definition.

<sup>22</sup> See *supra* IRFA para. 8 (numbers of small entities nationwide).

<sup>23</sup> See 13 C.F.R. § 121.201 (NAICS code 51312).

services.<sup>24</sup> Included in this industry are commercial, religious, educational, and other television stations.<sup>25</sup> Also included are establishments primarily engaged in television broadcasting and which produce taped television program materials.<sup>26</sup> There were 1,509 television stations operating in the nation in 1992, of which 1,155 produced less than \$10.0 million in revenue (76.5 percent).<sup>27</sup> As of May 31, 1998, official Commission records indicate that 1,579 full power television stations, 2,089 low power television stations, and 4,924 television translator stations were licensed.<sup>28</sup> Using the percentage of television broadcasting licensees that were small entities in 1992 (76.5 percent), we conclude that there are approximately 1,208 full power television stations that are small entities.

14. The rules may affect approximately 1,663 television stations, approximately 1,281 of which are considered small businesses.<sup>29</sup> The proposed rules will affect some 12,717 radio stations, approximately 12,209 of which are small businesses.<sup>30</sup> These estimates may overstate the number of small entities because the revenue figures on which they are based do not include or aggregate revenues from non-television or non-radio affiliated companies. There are also 2,366 LPTV stations.<sup>31</sup> Given the nature of this service, we will presume that all LPTV licensees qualify as small entities under the SBA definition.

**15. Auxiliary or Special Broadcast.** This service involves a variety of transmitters, generally used to relay broadcast programming to the public (through translator and booster stations) or within the program distribution chain (from a remote news gathering unit back to the station). The Commission has not developed a definition of small entities applicable to broadcast auxiliary licensees. The applicable SBA definition is that noted previously, under the SBA rules applicable to television broadcasting stations.<sup>32</sup> The Commission

---

<sup>24</sup> Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1992 Census of Transportation, Communications and Utilities, Establishment and Firm Size, Series UC92-S-1, Appendix A-9 (1995).

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

<sup>27</sup> FCC News Release No. 31327, Jan. 13, 1993; Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, Appendix A-9. The amount of \$10 million was used to estimate the number of small business establishments because the relevant Census categories stopped at \$9,999,999 and began at \$10,000,000. No category for \$10.5 million existed. Thus, the number is as accurate as it is possible to calculate with the available information.

<sup>28</sup> FCC News Release, June 19, 1998.

<sup>29</sup> We use the 77 percent figure of TV stations operating at less than \$10 million for 1992 and apply it to the 2000 total of 1,663 TV stations to arrive at 1,281 stations categorized as small businesses.

<sup>30</sup> We use the 96% figure of radio station establishments with less than \$5 million revenue from data presented in the year 2000 estimate (*FCC News Release*, September 30, 2000) and apply it to the 12,717 individual station count to arrive at 12,209 individual stations as small businesses.

<sup>31</sup> FCC News Release, "Broadcast Station Totals as of September 30, 2000."

<sup>32</sup> 13 C.F.R. § 121.201 (NAICS code 51312).

estimates that there are approximately 2,700 translators and boosters. The FCC does not collect financial information on any broadcast facility, and the Department of Commerce does not collect financial information on these auxiliary broadcast facilities. We believe that most, if not all, of these auxiliary facilities could be classified as small businesses if viewed apart from any associated broadcasters. We also recognize that most commercial translators and boosters are owned by a parent station which, in some cases, would be covered by the revenue definition of small business entity discussed above. These stations would likely have annual revenues that exceed the SBA maximum to be designated as a small business (\$10.5 million for a TV station). Furthermore, they do not meet the Small Business Act's definition of a "small business concern" because they are not independently owned and operated.<sup>33</sup>

16. We invite comment on this analysis.

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

17. Entities interested in acquiring initial licenses to use spectrum in the 698-746 MHz band will be required to submit short form applications to participate in an auction and high bidders will be required to apply for their individual licenses.<sup>34</sup> The proposals under consideration in this item also include requiring commercial licenses to make showings that they are in compliance with construction requirements, file applications for license renewals, and make certain other filings as required by the Communications Act and Commission regulations. In addition to the general licensing requirements of Part 27 of the Commission's Rules, other parts may be applicable to commercial licensees, depending on the nature of service provided. For example, commercial licensees proposing to provide broadcast services on these bands may be required to comply with all or part of the broadcast-specific regulations in Part 73 of the Commission's Rules. We request comment on how these requirements can be modified to reduce the burden on small entities and still meet the objectives of the proceeding.

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

18. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.<sup>35</sup>

19. In this Notice, we seek comment on a number of proposals and alternatives regarding the reallocation of, and service rules for, the 698-746 MHz band. This Notice seeks to adopt rules that will reduce regulatory burdens, promote innovative services and encourage flexible use of this spectrum. It opens up economic opportunities to a variety of spectrum users, including small businesses. We consider various

---

<sup>33</sup> 15 U.S.C. § 632.

<sup>34</sup> *See supra* NPRM para. 116.

<sup>35</sup> 5 U.S.C. § 603(c).

proposals and alternatives partly because we seek to minimize, to the extent possible, the economic impact on small businesses.

20. In the Notice, we propose to reallocate the entire 48 megahertz of spectrum in the 698-746 MHz band to the fixed and mobile services, and to retain the existing broadcast allocation.<sup>36</sup> The Notice tentatively concludes that service rules for this band should implement flexible use for the full range of proposed allocated services consistent with necessary interference requirements. We seek comment on how this approach will impact small entities.

21. We seek comment on various alternative licensing and service rules. The Notice seeks comment on a number of issues relating to how the Commission should craft service rules for this spectrum, that could have an impact on small entities. With respect to the size of spectrum blocks for licensees, we seek comment on whether we should license the spectrum as a single 48 megahertz block or as two or more blocks, and how the size of spectrum blocks would impact small entities.<sup>37</sup> With respect to service areas, we propose a geographic area approach and seek comment on the appropriate size of service areas. We ask for comment on whether smaller geographic areas would better serve the needs of small entities.<sup>38</sup> We propose to permit geographic partitioning and spectrum disaggregation, which promotes efficient spectrum use and economic opportunity for small business entities.<sup>39</sup> We also seek comment on whether we should permit licensees to lease their licensed spectrum usage rights. Spectrum leasing could benefit small businesses because many different types of spectrum users (including small businesses) would be permitted to satisfy their spectrum needs without having to acquire a license or go through the Commission's procedures for assigning or transferring control of a license or a partial license through partitioning, disaggregation, or partial assignment.<sup>40</sup> With respect to spectrum aggregation, we seek comment on whether we should abstain from counting the 698-746 MHz band against the Commercial Mobile Radio Services ("CMRS") spectrum cap, and how this would impact the marketplace, which includes the impact on small entities.<sup>41</sup>

22. The Notice proposes the small business definitions for bidders in auctions of licenses in the counting the 698-746 MHz band: a "small business" would be defined as an entity with average annual gross revenues for the three preceding years not exceeding \$40 million, and a "very small business" would be defined as an entity with average annual gross revenues for the three preceding years not exceeding \$15 million. As discussed above, these definitions are consistent with the definitions the Commission applied to broadband PCS and the Upper 700 MHz Band. We have also sought comment on whether alternative approaches may be appropriate in light of the particular characteristics of this band. For example, the Notice seeks comment on whether to adopt an additional definition for entities with average annual gross revenues for the three preceding

---

<sup>36</sup> See *supra* NPRM para. 14.

<sup>37</sup> See *supra* NPRM paras. 46-47.

<sup>38</sup> See *supra* NPRM paras. 53-57.

<sup>39</sup> See *supra* NPRM para. 106.

<sup>40</sup> See *supra* NPRM paras. 55, 87.

<sup>41</sup> See *supra* NPRM para. 91.

years of not more than \$3 million. The Notice also proposes to provide qualifying “small businesses” that participate in an auction with a bidding credit of 15%, and “very small businesses” with a 25% bidding credit. The Commission has previously found that bidding credits provide adequate opportunities for small businesses of varying sizes to participate in spectrum auctions.<sup>42</sup> The Notice also seeks comment on whether, if we adopt a third small business definition for entities with average annual gross revenues of not more than \$3 million for the past three years, the 35% bidding credit set out in Section 1.2110(f)(2)(i) should be made available to such entities. In addition, small business may combine any additional tribal lands bidding credits pursuant to Section 1.2110(f)(3) of the rules with the proposed small business bidding credits.

23. The regulatory burdens contained in the Notice, such as filing applications on appropriate forms, are necessary in order to ensure that the public receives the benefits of innovative new services, or enhanced existing services, in a prompt and efficient manner. We will continue to examine alternatives in the future with the objectives of eliminating unnecessary regulations and minimizing any significant economic impact on small entities. We seek comment on significant alternatives commenters believe we should adopt.

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

24. None.

---

<sup>42</sup> See Amendment of Part 1 of the Commission’s Rules - Competitive Bidding Procedures, *Third Report and Order and Second Further Notice of Proposed Rule Making*, 13 FCC Rcd 374, 404, ¶ 47 (*Part 1 Third Report and Order*).

**SEPARATE STATEMENT OF COMMISSIONER GLORIA TRISTANI**  
**Approving in Part, Dissenting in Part**

*Re: Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), GEN Docket No. 01-74*

In 1997, the Commission adopted a comprehensive Table of Allotments for the introduction of Digital Television (DTV) and concluded that, while channel 60-69 spectrum could be recovered early, other reclaimed spectrum would only be recovered “at the end of the transition period.”<sup>1</sup> Today, the Commission suggests that we alter course by proposing ways to promote early recovery of spectrum in channels 52-59.

My views expressed in the upper 700 MHz proceeding extend to this Notice.<sup>2</sup> I do not support a presumption that the public is better served by loss of existing television service than by delay in receiving new services. My convictions run even deeper here given the Commission’s previous commitment to preserve the lower 700 MHz band for broadcast services until the end of the transition. I thus respectfully dissent from the band clearing proposals.

The 1997 DTV Table of Allotment decision was based on sound principles of spectrum management. The Commission could not locate all stations’ DTV channel allotments within the “core” broadcast spectrum (currently channels 2-51), so it placed 165 DTV stations in channels 52-59 as a transitional measure pending final placement within the core. The Commission stated that “the public interest is best served by developing a Table of DTV Allotments that meets the DTV spectrum needs of broadcasters during the transition; facilitates the early recovery of spectrum from channels 60-69; and also facilitates the eventual recovery of [other] spectrum currently being used for analog broadcasting.”<sup>3</sup> Consistent with this approach, pending applicants that were either displaced from the core or from channels 60-69 were later allowed to seek temporary refuge in this band as well.

Later in 1997, Congress mandated an auction of this spectrum by September 30, 2002. In doing so, however, Congress did not suggest that we encourage early recovery of the spectrum. To the contrary, although the Commission had just announced that reclaimed spectrum would be recovered at the end of the DTV transition, Congress proceeded to define the end of the transition as 2006 or beyond.<sup>4</sup>

---

<sup>1</sup> DTV 6<sup>th</sup> Report and Order, 12 FCC Rcd 14588, 14590 para. 1 (1997).

<sup>2</sup> See Separate Statement of Commissioner Gloria Tristani, Service Rules for 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission’s Rules, *Third Report and Order*, WT Docket No. 99-168 (Jan. 19, 2001); Separate Statement of Commissioner Gloria Tristani, Service Rules for 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission’s Rules, *Memorandum Opinion and Order and Further Notice of Proposed Rulemaking*, WT Docket No. 99-168 (June 30, 2000).

<sup>3</sup> DTV 6<sup>th</sup> Report and Order, 12 FCC Rcd at 14625, para. 76.

<sup>4</sup> 47 U.S.C. § 309(j)(14).



With the auction date looming, however, the majority proposes policies to promote band clearing in channels 52-59. Unless Congress directs this agency otherwise, I do not believe we should change course. I support the DTV Table of Allotment and the spectrum transition plan adopted in 1997. The DTV transition should be guided by sound principles of spectrum management, not auction consequences.

In the end, these band clearing proposals may have little effect other than fueling false expectations of available spectrum. Today, roughly 100 NTSC and 165 DTV incumbents are in channels 52-59. These proposals alone are unlikely to clear substantial swaths of spectrum. Nonetheless, my commitment to free, over-the-air broadcast services and our DTV transition plan compel me to dissent from these proposals.